


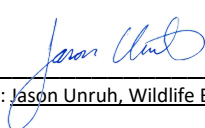
# Alberta Environment and Protected Areas - Fish and Wildlife Stewardship Renewable Energy Referral Report

The Eastervale Solar Energy Project (the Project) proposed by Eastervale Solar Inc. (the Proponent) was reviewed by the Alberta Environment and Protected areas – Fish and Wildlife Stewardship (EPA-FWS) regional wildlife contact for renewable energy projects. EPA-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 23, 2022 and accepted by EPA-FWS on January 9, 2023 and updated by the Proponent in a response to information requests on May 24, 2023.

The EPA-FWS review of the Eastervale Solar Energy Project was guided by the EPA-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 EPA-FWS that was restricted to reviewing information provided in the submitted documents, completed by Western EcoSystems Technology, ULC 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 EPA-FWS policy, therefore additional consultation may be necessary. EPA-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 EPA-FWS.

Signature:  Date: June 12, 2023  
Printed Name and Position: Daniel Knop, Wildlife Technician, South Region, Lethbridge, Alberta

Signature:  Date: June 12, 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 EPA *Wildlife Directive for Alberta Solar Energy Projects* for details on specific topics within this summary.

EPA-FWS has determined that the risk to high value native wildlife habitat and key features for species at risk is low, based on the Project’s overall location and siting on previously disturbed land (cultivation and hayland). However, EPA-FWS has determined the risk to wetland habitat is high based on a high number of wetland habitat impacts and the loss and degradation of wetland habitat, which mitigation measures are unable to fully reduce.

EPA-FWS has determined the risk to breeding birds is low because of the limited occurrence of sensitive species and general siting and location of the Project. EPA-FWS has assessed the overall risk to birds as moderate based on the loss and degradation of numerous wetlands, which are functioning as important stopover habitat and breeding features for birds.

The Project has been sited to avoid all wildlife features, including the house, nest, den and lek of species of management concern; therefore, the risk to wildlife features is considered low.

EPA-FWS has determined the Eastervale Solar Energy Project proposed by Eastervale Solar Inc., poses a low risk to wildlife and wildlife habitat, based on Project siting, limited wildlife use in the area, and commitments made by the Proponent to mitigate and monitor wildlife impacts. This EPA-FWS Renewable Referral Report expires on June 12, 2028.

<i>Project Information</i>	<i>Project Details</i>
Project Name	Eastervale Solar Energy Project
Municipality/County	Provost No. 52
Project MW	220 MW
Proponent Name	Eastervale Solar Inc.
Consultant Name	Western EcoSystems Technology, ULC
Project Documents Submitted <sup>1</sup>	<ul style="list-style-type: none"> <li>Renewable Energy Project Submission – Eastervale Solar Energy Project, Hughenden, Alberta</li> <li>20230516 EPA-FWS Initial Review Questions_Eastervale Solar_20230524</li> </ul>
Date of Referral Report Expiry	June 12, 2028
<b>Overall Risk Ranking</b>	Low

<sup>1</sup> 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

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### 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 away from high value habitat and entirely on cultivation and hayland. This aligns with the *Directive*.

### Wetlands

Risk Ranking:  Not Applicable  Low  Moderate  High  High Unmitigated

Infrastructure sited within suitable habitat or applicable setbacks:  Yes  No

Comments/Mitigation: Eighteen seasonal or higher class (Class III+) wetlands will be directly impacted by Project infrastructure (solar panels, access roads, collector lines, fence). Forty seasonal or higher (Class III+) wetlands will have their 100 m setbacks impacted by Project infrastructure (solar panels, access roads, collector lines, fence, laydown areas, substation, O&M building). The Proponent has committed to mitigation measures to limit some of the impacts to wetland habitat, and these mitigations are detailed in the submitted documents reviewed for this referral. While these mitigations will reduce some of the impacts to sensitive wetland habitat, direct impacts to wetlands will lead to a loss and degradation of wetland habitat, which does not align with the *Directive*. Furthermore, the number of impacts to wetland habitat is very high. Therefore, EPA-FWS has assessed the risk to wetland habitat as high.

## WILDLIFE FEATURES

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### 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 not located within Sensitive Raptor Range. One red-tailed hawk nest was found during surveys. The nest setback will not be impacted by Project infrastructure, which aligns with the *Directive*. Therefore, EPA-FWS has assessed the risk to raptor nests 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 located within sharp-tailed grouse range, and 15 birds were observed incidentally, but no active leks were found during surveys. Therefore, EPA-FWS has assessed the risk to sharp-tailed grouse as low.

## BIRD RISK

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### Breeding Birds

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: During surveys, six provincial species of management concern were observed, all in low numbers. A total of 26 species were observed, and the average bird activity rate was 2.63 birds/min. The Proponent will try to schedule vegetation clearing associated with construction activities outside of the breeding bird season (April 15 to August 30), or if clearing and other construction activities occurs during the breeding bird season, nest sweeps will be conducted prior to construction activities. Given the limited amount of high value habitat within the Project area, and the lack of Species at Risk observed, EPA-FWS has assessed the risk to breeding birds as low.

### Bird Risk

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: During migration surveys, seven species of management concern were observed, one of which was found in high numbers (sandhill crane, 50 birds), however no Species at Risk were observed. The average bird activity rate during spring migration was 3.93 birds/min and 2.79 birds/min during fall migration, which are both considered high activity rates. The Project area is full of wetlands, which are providing stopover habitat during migration as well as breeding habitat for wetland avian species. Project infrastructure will significantly impact wetland habitat, as well as upland breeding habitat for wetland associated species. Given the loss and degradation of this habitat to migratory and breeding species and the direct and indirect affects this will have on avian species, EPA-FWS has assessed the overall risk to birds as moderate.

## Other Wildlife Risks

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### Guy Wires

Risk Ranking:

Not Applicable  Low  Moderate  High  High Unmitigated

Comments/Mitigation: No guy wires are proposed for this Project.

### Collection Lines

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: All collector lines will be sited underground, and the Proponent has committed to using low-disturbance methods (plough-in and horizontal directional drilling) for most collector line installations to reduce impacts to wildlife and habitat. Therefore, EPA-FWS has assessed the risk to wildlife and wildlife habitat from collector lines as low.

## Fencing

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: The proposed fence will be a 1.8 m tall chain link fence with three strands of barbed wire along the top and raised off the ground by 10 cm to allow for passage of small wildlife underneath. EPA-FWS had concerns about a large entrapment pocket created in the quarter section of NE-35; however, the Proponent has amended the fence design to have the fence line follow the quarter line from NE-35 to SW-36, which eliminates this entrapment concern for wildlife. EPA-FWS does have concerns about the potential for the unmarked barbed wire to create a collision risk for birds. Therefore, EPA-FWS has assessed the risk to wildlife from the fence design as moderate.

## Ground Disturbance and Vegetation Management

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: Localized grading may be required for the inverter, substation, laydown, and O&M areas. Otherwise, there will be minimal clearing required. The Proponent has committed to using minimum disturbance techniques and will perform nest sweeps if clearing occurs during the nesting period (April 15 to August 30). A native grass mix will be used for reseeding under the solar panels. Mowing and weed management will occur outside breeding bird season (April 15-Aug 31) or nest sweeps will be done prior to vegetation management. This aligns with the *Directive*, and EPA-FWS has assessed the risk to wildlife as low.

## Post Construction Monitoring Plan

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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 EPA-FWS and the AUC annually by the end of January following the mortality monitoring period).

Yes  No

## Post Construction Mitigation Plan

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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