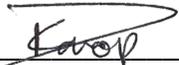


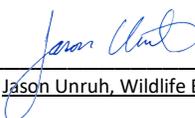
# Alberta Environment and Protected Areas - Fish and Wildlife Stewardship Renewable Energy Referral Report

The Bright Meadows Solar Project (the Project) proposed by Bright Diamond Consulting (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 20, 2022 and accepted by EPA-FWS on January 5, 2023 and updated by the Proponent in a response to information requests on April 12, 2023.

The EPA-FWS review of the Bright Meadows Solar 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 EDI Environmental Dynamics 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: April 20, 2023  
Printed Name and Position: Daniel Knop, Wildlife Biologist, South Region, Lethbridge, Alberta

Signature:  Date: April 20, 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.

EPA-FWS has determined that the risk to native wildlife habitat is moderate, based on the Project's overall location, and the planned removal of several native aspen stands.

Solar arrays are planned within the setback of one seasonal graminoid marsh, however, this marsh has been previously cultivated through the proponent has identified mitigation measures while working within the setback to reduce the risk to wetland habitat and wildlife. Therefore, the risk wetlands has been as low by EPA-FWS.

EPA-FWS has determined the overall risk to birds is high, based on the removal of native habitat used by breeding birds (aspen stands), and the potential for this removal to occur during the breeding bird nesting period. The secondary mitigation of nest sweeps does not significantly reduce the risk to nest destruction, and therefore the risk remains high.

The Project has been sited to avoid a red-tailed hawk nest, and no other sensitive wildlife features were found during surveys. Therefore, the risk to sensitive wildlife features, including raptor nests, has been assessed as low by EPA-FWS.

EPA-FWS has determined the Bright Meadows Solar Power Project proposed by Bright Diamond Consulting, poses a low risk to wildlife and wildlife habitat, based on Project siting, avoidance of wildlife setbacks, overall wildlife use and activity within the project area, and commitments made by the Proponent to mitigate and monitor wildlife impacts. This EPA-FWS Renewable Referral Report expires on April 20, 2028.

<i>Project Information</i>	<i>Project Details</i>
Project Name	Bright Meadows Solar Power Project
Municipality/County	Wetaskiwin No. 10
Project MW	32 MW
Proponent Name	Bright Diamond Consulting
Consultant Name	EDI Environmental Dynamics Inc.
Project Documents Submitted <sup>1</sup>	<ul style="list-style-type: none"> <li>• 22C0184_BrightDiamond_BrightMeadows_AEPASubmission_20221220</li> <li>• AEPA Initial Review Questions_Bright Meadows_Bright Diamond_Response_20230412</li> <li>• BrightDiamond_AEPA_CoverLetter_20221220</li> </ul>
Date of Referral Report Expiry	April 20, 2028
<b>Overall Risk Ranking</b>	<b>Low</b>

<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 on a tame pasture/hay land with multiple small aspen stands throughout the quarter section. These aspen stands provide high quality habitat and make up 4 hectares of the total project area; mitigation measures are unable to reduce the impact of clearing and removing native habitat. The project is also bordered by multiple larger aspen stands within 100 m of the project boundary. EPA-FWS has assessed the risk to native habitats as moderate, based on the project siting on the removal of and proximity to native aspen stands.

### 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 requiring a setback within the project area. This is a seasonal graminoid marsh that has previously been cultivated through. Solar panels will be installed approximately 30 m from the edge of this wetland in the northwest corner of the project. The mitigations for working within the wetland setback include amphibian surveys prior to construction, constructing during dry or frozen ground conditions or the use of erosion and sedimentation controls, and no washing, refueling or equipment maintenance within 100 m of the wetland. AEPa-FWA has assessed the risk to wetlands as low based on the mitigation measures proposed to work within the setback of the disturbed seasonal graminoid marsh.

## 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 sited outside of all sensitive raptor ranges; one red-tailed hawk nest was identified. The project layout has been designed to meet the 100 m setback for the red-tailed hawk nest. Due to the project design and siting outside of sensitive raptor ranges, 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 sited within sharp-tailed grouse range, and surveys found no signs of lekking grounds or individual birds. Due to the lack of activity found and the commitment of the proponent to continue ongoing lek surveys, 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: There were no species at risk observed during breeding bird surveys, and a total of 2.16 birds per minute were observed. EPA-FWS has assessed the risk to breeding birds as low based on the lack of species at risk observed and moderate bird activity observed.

### Bird Risk

Risk Ranking:  Low  Moderate  High  High Unmitigated

Comments/Mitigation: There were no species at risk observed during spring or fall migratory surveys, and 0.57 birds per minute were observed during spring surveys and 1.2 birds per minute were observed during the fall. There will be clearing of high value native habitat for breeding birds (aspen stands), which may be completed outside of the nesting period; however, nest sweeps may be used instead as secondary mitigation if construction or clearing occurs during the nesting period. This secondary mitigation could result in the destruction of active nests and mortality of eggs or nestlings. EPA-FWS has assessed the risk to birds as high, based on moderate overall bird numbers, the removal of high value native habitat and the lack of a firm commitment to avoiding vegetation clearing during the breeding bird season.

## Other Wildlife Risks

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### Guy Wires

Risk Ranking:  Not Applicable  Low  Moderate  High  High Unmitigated

Comments/Mitigation: There are no guy wires planned for this project which aligns with the *Directive*.

### Collection Lines

Risk Ranking:  Low  Moderate  High  High Unmitigated

Comments/Mitigation: All collection lines are sited underground using minimum disturbance techniques, which aligns with the *Directive*.

## Fencing

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: The fence is designed to create one large square around the quarter section and will not impede wildlife movement. The fence will either have large enough gaps to allow small animals to pass through or be installed high enough off the ground to allow for wildlife passage underneath, which will reduce the risk of brood separation and wildlife entrapment. EPA-FWS has assessed the fencing risk as low.

## Ground Disturbance and Vegetation Management

Risk Ranking:

Low  Moderate  High  High Unmitigated

Comments/Mitigation: Minor localized grading may be required to level out knolls, but the site is generally flat so limited grading is expected, which will primarily be associated with access roads and inverter station locations. Vegetation management will occur outside of the nesting period if feasible, otherwise, nest sweeps will be completed. EPA-FWS has assessed the risk of ground disturbance and vegetation management as moderate based on limited grading being required, and the removal of high value habitat and potential for vegetation clearing during the breeding bird period.

## 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