



Alberta Wetland Assessment and Impact Report Directive

June 2017



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Purpose

The purpose of this document is to outline the pre-disturbance wetland assessment and reporting requirements of the Alberta Wetland Policy.

Enforcement/Compliance

All Applicants must follow this directive when submitting wetland assessment information as part of a regulatory application to impact wetlands.

Reference Documents

- Alberta Wetland Regulatory Requirements Guide
- Wetland Application Checklist
- Alberta Wetland Mitigation Directive
- Alberta Wetland Identification and Delineation Directive
- Alberta Wetland Rapid Evaluation Tool (ABWRET-A) Manuals
- Alberta Wetland Classification System

Citation

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1. Wetland Assessment Overview

Applicants proposing to impact a wetland must submit a pre-disturbance wetland assessment to the regulatory body as part of the provincial regulatory process. The following subsections outline the two formats of a wetland assessment, depending on the type of activity and the proposed impacts to wetlands. Any wetland assessment submitted to the regulatory body must be signed by an authenticating professional in accordance with the Professional Responsibilities in the Completion and Assurance of Wetland Science, Design and Engineering Work in Alberta.

1.1. Wetland Assessment and Impact Form

A desktop-based Wetland Assessment and Impact Form will support applications and notices for:

1. Short-term activities that will be returned back to wetland after reclamation
2. Activities that have minimal permanent impacts

These types of activities typically follow standard mitigation techniques in compliance with a *Water Act* Code of Practice, relevant best practices or standard operating procedures (SOPs) for undertaking activities within a wetland. On Public Lands, the disturbed land will be reclaimed back to the pre-disturbance land use, unless a change in land use is approved. For wetlands, these land use types include peat-accumulating or mineral wetlands.

The assessment completed using this form must be authenticated by a qualified professional who meets the requirements in the Professional Responsibilities in Completion and Assurance of Wetland Science, Design and Engineering Work in Alberta.

Check the Alberta Wetland Policy Implementation web page and download the Wetland Assessment and Impact Form. Activities that require this assessment and reporting method must complete this form following its instructions.

Where permanent wetland impacts will be incurred, the relative wetland value results from the desktop-only Alberta Wetland Rapid Evaluation Tool (ABWRET-D) need to be attached to the completed form. This step requires the Applicant to submit a shapefile prior to submission of their application to:

- AEP.Wetlands@gov.ab.ca

The department will calculate scores internally and send them back to the Applicant.

1.2. Wetland Assessment and Impact Report

For all other activities, the Applicant must submit a Wetland Assessment and Impact Report (WAIR). This report must be authenticated by a qualified professional who meets the requirements in the Professional Responsibilities in Completion and Assurance of Wetland Science, Design and Engineering Work in Alberta.

The field portion of a WAIR must be completed within the growing season when vegetation is growing above-ground and can be easily observed. This timeframe allows some flexibility in consideration of

differences in growing seasons across the latitudinal gradient. Additional field visits may be necessary to perform species surveys of rare, sensitive or endangered species at the appropriate time of day or year.

For all activities that require a WAIR, the Applicant must complete the reporting requirements provided in the checklist in the following section.

2. Wetland Assessment and Impact Report Checklist

2.1. General Information

- Name and professional designation of the individual(s) who conducted the Wetland Assessment and Impact Report (WAIR)
- Name and professional designation of the individual(s) who authenticated the WAIR
- Name of company
- Date(s) of assessment
- Overview of the project area with maps and descriptions of landscape features within the local watershed. The map should have a clear legend, scale and north arrow. The overview must include, but is not limited to, the following information:
 - Named waterbodies (e.g. watercourses, wetlands and lakes)
 - Wetland boundaries and size
 - Catchments
 - Drainage patterns and connectivity between water bodies
 - Contour maps depicting landscape position of wetlands
 - Surrounding land uses

2.2. Wetland Identification, Delineation and Classification

- Digital shapefile of each wetland extent, determined in accordance with the Alberta Wetland Identification and Delineation Directive
- Digital shapefile of the proposed impacted areas within each wetland
- Documentation of procedures and evidence used to determine the wetland delineation in accordance with the Alberta Wetland Identification and Delineation Directive
- Documentation and evidence used to determine wetland classification, in accordance with the Alberta Wetland Classification System (AWCS). Marshes and shallow open water wetlands must be classified according to the class-level and water permanence type. Peatlands and

swamps must be classified to both class and form. Use classification codes provided in the AWCS

- Description of pre-disturbance vegetation, soils and hydrology of each wetland
- Photographs of each wetland, with GPS coordinates, figure captions and descriptions that illustrate the wetland class and vegetation communities within the wetland

2.3. Relative Wetland Value

- Where any permanent impacts on wetlands will occur, attach the results of the Alberta Wetland Rapid Evaluation Tool – Actual (ABWRET-A). This must include the ‘AllSitesA’ worksheet of any wetlands that have proposed permanent impacts in accordance with the appropriate ABWRET-A Guide. Note: This step requires the Applicant to submit a shapefile and ABWRET-A field form prior to the submission of an application to:

- AEP.Wetlands@gov.ab.ca

The department will calculate scores internally and send them back to the Applicant.

- For any temporary impacts on wetlands that will be completely reclaimed back to the pre-disturbance land use (i.e. mineral or peat-accumulating wetland), attach the results of the desktop-only Alberta Wetland Rapid Evaluation Tool – Desktop (ABWRET-D). Note: This step requires the Applicant to submit a shapefile prior to the submission of an application to:

- AEP.Wetlands@gov.ab.ca

The department will calculate scores internally and send them back to the Applicant.

2.4. Species Surveys

- A Landscape Analysis Tool (LAT) report, where available, to determine additional survey requirements and conditions. The LAT tool utilizes fisheries and wildlife sensitivity mapping layers to highlight areas of concern and intersecting points where conditions apply. These layers include the following but are not limited to species that may inhabit or utilize wetlands, as well as sensitive areas that include wetlands:

- Piping plover areas
- Trumpeter swan lakes
- Caribou range
- Sharp-tailed grouse leks
- Greater Sage Grouse Habitat, Leks and Federal restriction areas
- Sensitive amphibian range
- Colonial nesting birds areas

- Sensitive raptor range
 - Key wildlife and biodiversity zones
 - Endangered and Threatened Plants locations
- Alberta Conservation Information Management System (ACIMS), Fish and Wildlife Information Management System (FWIMS) search results
- A list of dominant vegetation species found within each wetland
- A list of sensitive, rare or endangered plant and wildlife species incidentally observed during the wetland assessment as deemed necessary or requested by the regulatory body. Refer to the Fish and Wildlife Sensitive Species Inventory Guidelines, Inventory Protocols, and Submissions for more information on species inventory surveys
- Methods and results of any species surveys that were conducted

2.5. Other Surveys

The following information may be required by the regulatory body, depending on the complexity of the project, the extent and scale of proposed impacts or any additional environmental considerations.

- Appropriate and sufficient studies on water quality, conducted by a qualified professional, when a proposed activity is likely to result in altered water chemistry discharging into or out of a wetland
- Appropriate and sufficient studies on local hydrology or hydrogeology, conducted by a qualified professional, when a proposed activity is likely to result in altered water quantity flowing into or out of a wetland

2.6. Impacts on Wetlands

- Description of all anticipated impacts on wetlands, including the following information:
- Total footprint of the proposed activity
 - Total number and area of wetlands that were assessed
 - Direct and indirect temporary impacts on wetland area and function
 - Direct and indirect permanent impacts on wetland area and function
 - The timeline of the proposed activity
 - Impacts on hydrology, soils, vegetation and wildlife
 - Any expected changes in wetland class, and the causes for this change
 - Any expected adverse effects on the aquatic environment, including biodiversity, ecological health or habitat, and the causes of these effects

- Any expected adverse effects to humans, including First Nations, public health and safety, and human use
- Consideration of cumulative effects in the watershed, to wetlands or to the broader environment

2.7. Mitigation Proposal

Applicants must follow the Alberta Wetland Mitigation Directive, consider the Mitigation Hierarchy, and document the following responses within the Wetland Assessment and Impact Report:

- A proposed wetland mitigation plan in accordance with the Alberta Wetland Mitigation Directive, including:
 1. Avoidance, which must be considered first and foremost before resorting to impacts on wetlands:
 - a. Justification and rationale for impacts on wetlands
 - b. Demonstration of efforts to avoid and minimize wetland impacts
 2. Minimization outlining how all temporary impacts to wetlands will be minimized and reclaimed, including:
 - a. Mitigation measures to minimize impacts on the physical area and relative value of a wetland. Also consider impacts on individual wetland functions, hydrology, vegetation, soils, fish and wildlife, biodiversity, and rare species. For complex projects with high risk of indirect impacts, monitoring proposals may be requested
 - b. A reclamation commitment and proposal to return the land back to wetland using appropriate and best available reclamation techniques. Refer to a Reclamation Plan under *EPEA* where available. Include the following:
 - i. An explicit commitment to the total area of wetland reclamation
 - ii. A comparison between pre-disturbance and post-reclamation characteristics, including wetland area, class, vegetation, soils, hydrology and habitat
 - iii. Specific, measurable, attainable, realistic and time-bound wetland reclamation objectives and outcomes
 - iv. A discussion of the projected impacts to the wetlands, technical feasibility of the reclamation plan to return the land to wetland, and the intent to apply appropriate and best available mitigation measures and reclamation techniques
 3. Replacement outlining how replacement obligations will be fulfilled where avoidance and minimization is not feasible or is considered ineffective:

- a. The area and relative value of each permanently impacted wetland
- b. The replacement ratio and replacement area of each permanently impacted wetland
- c. The replacement options proposed by the Applicant to mitigate impacts on wetlands

3. Unauthorized Impacts on Wetlands

Applicants or wetland science professionals may encounter unauthorized impacts to wetlands. Any such unauthorized activity must be brought into compliance prior to the consideration of a new *Water Act* or *Public Lands Act* application. Evidence of unauthorized activities such as drainage ditches, tile drainage, excavation, vegetation removal, fill material or other alterations impacting a wetland must be reported to the province by calling the 24-hour reporting line at 1-800-222-6514.

4. Expiry Dates

Applicants must ensure that wetland assessments are no more than three years old from the time of submission, and represent pre-disturbance conditions of the wetland.

5. Retention of Documents

Wetland assessment information collected for a Wetland Assessment and Impact Report or a Wetland Assessment and Impact Form must be retained for a minimum of 5 years and made available upon request.

6. Review and Amendment

This Directive may be reviewed and amended at any time. It is the responsibility of the Applicant to ensure they refer to the most up-to-date version of this document.

Contact Information

Any comments, questions, or suggestions regarding the content of this document may be directed to:

Water Policy Branch
Alberta Environment and Parks
7th Floor, Oxbridge Place
9820 – 106th Street
Edmonton, Alberta T5K 2J6
Phone: 780-644-4959
Email: AEP.Wetlands@gov.ab.ca

Additional copies of this document may be obtained by contacting:

Alberta Environment and Parks
Information Centre
Main Floor, Great West Life Building
9920 – 108 Street
Edmonton, Alberta T5K 2M4
Call Toll Free Alberta: 310-ESRD (3773)
Toll Free: 1 877 944-0313
Fax: 780 427-4407
Email: AEP.Info-Centre@gov.ab.ca
Website: AEP.alberta.ca

Authorities

Original signed by: _____

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Andy Ridge, Executive Director
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Alberta Environment and Parks