

Alberta Wetland Rapid Evaluation Tool – Desktop (ABWRET-D) Fact Sheet

What is ABWRET-D?

The Alberta Wetland Rapid Evaluation Tool – Desktop (ABWRET-D) was developed under the Wetland Policy to determine the relative value of wetlands impacted by activities that require a Wetland Assessment and Impact Form (WAIF). ABWRET-D will be used to inform planning and decision-making to mitigate wetland impacts while ensuring efficient and reasonable wetland assessment requirements for WAIF activities. This tool can also predict the relative value of potential wetland restoration sites for Wetland Replacement Agents.

ABWRET-D is a desktop-based tool which estimates the value of a wetland relative to other wetlands in the province. It is based on the Alberta Wetland Rapid Evaluation Tool - Actual (ABWRET-A), and similarly assigns an A, B, C or D value category to an assessed wetland. ABWRET-D uses statistical models for Boreal-Foothills and Parkland-Grassland Natural Regions based on a suite of Office Form (OF) metrics that are the strongest predictors of ABWRET-A scores. Alberta Environment and Parks administers the ABWRET-A and ABWRET-D tools for activities regulated by both Alberta Environment and Parks and Alberta Energy Regulator.

How does ABWRET-D work?

ABWRET-D process steps are outlined in Figure 1. Alberta Environment and Parks (AEP) calculates the OF metrics in the model using the proponent's submitted wetland shapefile and AEP GIS layers. Once a numeric score is calculated using the model formulas in Table 1, the wetland is assigned an unmodified Relative Wetland Value of a, b, c, or d based on the scoring ranges in Table 2.

An abundance modifier, determined by the Relative Wetland Value Assessment Unit (RWVAU) in which the wetland is located (refer to Wetland Mitigation Directive), is then applied to assign a final Relative Wetland Value of A, B, C, or D. Wetlands with a-, b- and c-values are lowered by one category in RWVAUs with an abundance modifier of -1; wetlands with b-, c- and d-values are raised by a category in RWVAUs with a modifier of +1; and wetland values remain unchanged in RWVAUs with a modifier of 0. In addition, wetlands with numeric scores in the top and bottom 5% (determined by 5th and 95th percentiles) are unaffected by the abundance modifier.

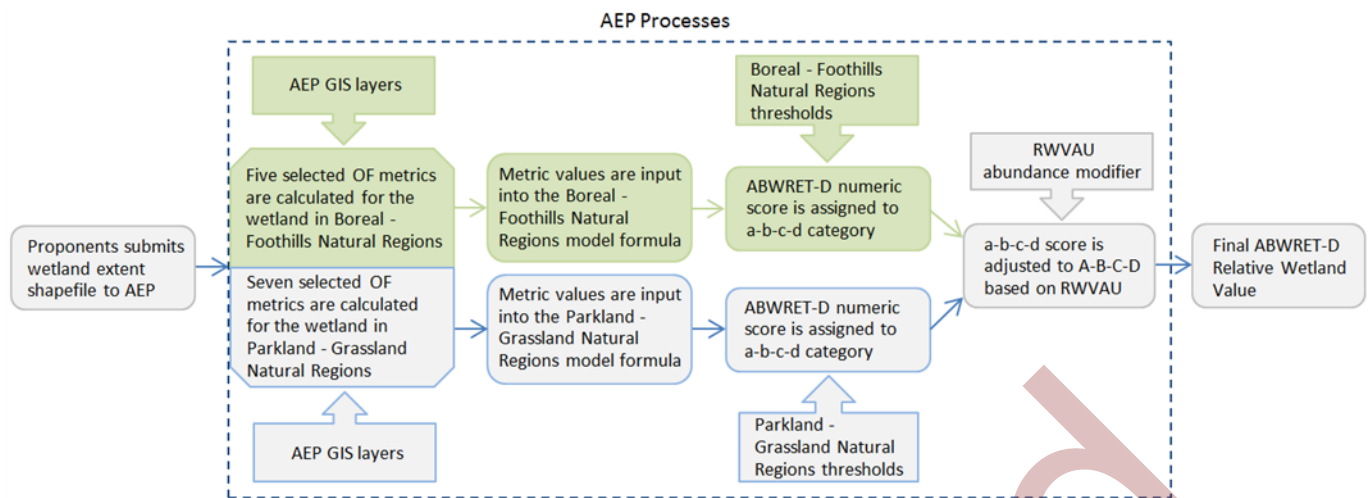


Figure 1. ABWRET-D process steps

Table 1. ABWRET-D Model Formulas

Boreal - Foothills Natural Regions	Model Formula: $OF3$ (ChannelConn) + $OF33$ (RipFloodpl) + $OF36$ (Sub0Days) + $OF52$ (CaribouRange) + $OF55$ (FireBreak)
	ABWRET-D Numeric Score = $0.77294 + 0.06131 (OF3) + 0.03360 (OF33) - 0.00084 (OF36) + 0.12093 (OF52) + 0.06957 (OF55)$
Parkland - Grassland Natural Regions	Model Formula: $OF16$ (Fringe) + $OF20$ (IBirdArea) + $OF34$ (PerimNatCov) + $OF40$ (RdDens1k) + $OF52$ (SwampMarshPct) + $OF58$ (UniqFenMarshSwamp) + $OF61$ (WBstaging)
	ABWRET-D Numeric Score = $0.65868 + 0.05563 (OF16) + 0.09874 (OF20) + 0.00041 (OF34) - 0.12932 (OF40) + 0.00031 (OF52) + 0.00094 (OF58) + 0.03597 (OF61)$

Table 2. Regionally-Specific Scoring Ranges for Unmodified Relative Wetland Values (a, b, c and d)

Percentile	ABWRET-D Unmodified Relative Wetland Value	Relative Wetland Value Scoring Ranges (x)	
		Boreal - Foothills Natural Regions	Parkland - Grassland Natural Regions
> or = 90 th	a	$x \geq 0.8810$	$x \geq 0.8172$
=<70 th and <90 th	b	$0.8810 > x \geq 0.8284$	$0.8172 > x \geq 0.7484$
=<40 th and <70 th	c	$0.8284 > x \geq 0.7627$	$0.7484 > x \geq 0.7001$
< 40 th	d	$x < 0.7627$	$x < 0.7001$

What new requirements do proponents need to know about?

ABWRET-D must be used for all activities that require a WAIF. Proponents are required to complete and attach ABWRET-D results to a WAIF, which is submitted to the regulatory body with a Public Lands Act and/or Water Act application(s) or Water Act Code of Practice Notice and all other required plans. ABWRET-D cannot be used for activities that require a Wetland Assessment and Impact Report (WAIR). All activities subject to a WAIR must utilise ABWRET-A.

To obtain an ABWRET-D value from Alberta Environment and Parks, a proponent must submit the wetland shapefile(s) and completed ABWRET-D Form to:

- AEP.Wetlands@gov.ab.ca

Wetlands must be delineated in accordance with one of the desktop pathways and follow the submission standards outlined in the Alberta Wetland Identification and Delineation Directive.

How will applicants benefit from this change?

ABWRET-D will ease the burden and costs of wetland assessment requirements for low risk WAIF activities with permanent impacts. Field work may still be required for other purposes, such as at the request of Resource Management (e.g. fish inventory or wildlife sweep). Relative wetland values determined by ABWRET-D will aid proponents in the planning of their activity to meet wetland policy requirements.

Reference documents

- Alberta Wetland Assessment and Impact Form
- Alberta Wetland Assessment and Impact Report Directive
- Alberta Wetland Identification and Delineation Directive
- Alberta Wetland Mitigation Directive
- Alberta Wetland Restoration Directive
- Alberta Wetland Rapid Evaluation Tool – Actual (ABWRET-A) Guide
- Guide to the Alberta Wetland Rapid Evaluation Tool – Actual (ABWRET-A) for the Boreal and Foothills Natural Regions