

# Wetland Rapid Evaluation Tool – Desktop (ABWRET-D)

## 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. 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 Protected Areas (EPA) administers the ABWRET-A and ABWRET-D tools for activities regulated by both EPA and Alberta Energy Regulator (AER).

## How does ABWRET-D work?

ABWRET-D process steps are outlined in Figure 1. EPA calculates the OF metrics in the model using the applicant's submitted wetland shapefile and EPA 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.

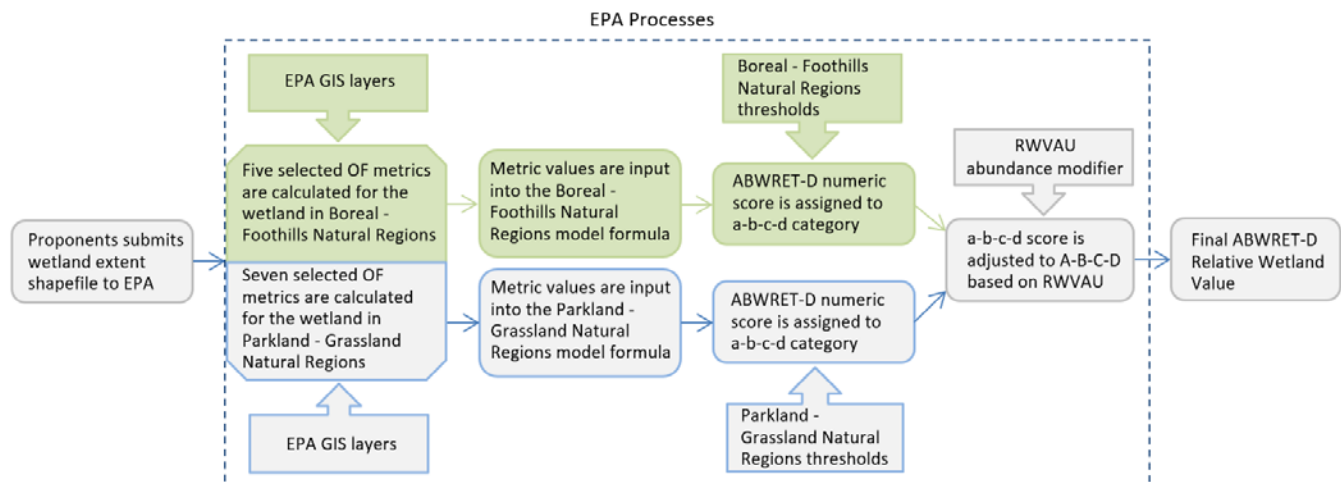


FIGURE 1. ABWRET-D PROCESS STEPS

**TABLE 1. ABWRET-D MODEL FORMULAS**

<b>Boreal – Foothills Natural Regions</b>	<b>Model Formula:</b> $OF3$ (ChannelConn) + $OF33$ (RipFloodpl) + $OF36$ (Sub0Days) + $OF52$ (CaribouRange) + $OF55$ (FireBreak)
	ABWRET-D Numeric Score = $0.77294 + 0.06131 (OF3) + 0.03360 (OF33) - 0.00084 (OF36) + 0.12093 (OF52) + 0.06957 (OF55)$
<b>Parkland – Grassland Natural Regions</b>	<b>Model Formula:</b> $OF16$ (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 <sup>th</sup>	a	$x \geq 0.8810$	$x \geq 0.8172$
=<70 <sup>th</sup> and <90 <sup>th</sup>	b	$0.8810 > x \geq 0.8284$	$0.8172 > x \geq 0.7484$
=<40 <sup>th</sup> and <70 <sup>th</sup>	c	$0.8284 > x \geq 0.7627$	$0.7484 > x \geq 0.7001$
<40 <sup>th</sup>	d	$x < 0.7627$	$x < 0.7001$

## What new requirements do applicants need to know about?

ABWRET-D must be used for all activities, except for Code of Practice activities, that require a WAIF. ABWRET-D cannot be used for activities that require a Wetland Assessment and Impact Report (WAIR). All activities subject to a WAIR must utilize ABWRET-A.

To obtain an ABWRET-D value from Alberta Environment and Protected Areas, an applicant must submit the wetland shapefile(s) and completed ABWRET-D Form to [AEP.Wetlands@gov.ab.ca](mailto: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. Applicants are not required to include an ABWRET-D evaluation results with a completed WAIF when submitting a Code of Practice notification to EPA or AER for activities within a wetland that falls under a Code of Practice. 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 applicants 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 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