

The Alberta Wetland Policy was proclaimed in 2013, with implementation ongoing, beginning in the White Area in June of 2015. The Policy, in conjunction with the *Water Act*, requires that all activities that impact natural or restored wetlands be subject to the requirement for an approval under the *Water Act*, and further that all impacts to applicable wetlands that cannot be avoided or mitigated be subject to replacement requirements.

The process for obtaining *Water Act* approvals for wetland impacts includes an assessment of permanence for *Public Lands Act* Ownership, and a Wetland Assessment and Impact Report (or Form) which includes a number of environmental studies supporting the application. This work is followed by an application submission to Alberta Environment and Parks that includes evidence of use of the Policy's Wetland Mitigation Hierarchy. Where wetland impacts are determined to be unavoidable, a wetland replacement plan is required which can currently take one of two forms. One is a permittee-based wetland restorative replacement option whereby the applicant submits design and monitoring plans and completes the work for restored wetlands to offset proposed losses. The second is a compensation payment in-lieu of wetland restoration, currently paid to Ducks Unlimited Canada. The cost associated with environmental studies required for the approval process, and cost of compensation required for wetland replacement, is a significant issue for rural municipalities.

Municipalities are responsible for road maintenance, re-building, and the construction of new roads. When planning for the construction of a new road, municipalities have the option to not build the road, or build the road in such a way that it does not impact surrounding wetlands. The wetland mitigation hierarchy as described by the Alberta Wetland Policy is therefore possible to accommodate for new construction, although it may still result in important access routes not being built due to increased costs. It is not possible for municipalities to apply the wetland mitigation hierarchy in the case of road maintenance.

Municipal roads require consistent maintenance and occasional re-building to ensure public safety, accommodate increased use including extra weight and more traffic, and to upgrade to current standards. Such roads occur in existing right of ways and were historically built through many wetlands, prior to the requirements of any provincial wetland regulation. Since upgrades usually require some widening of the road, municipalities are unable to avoid impacts to wetlands where road maintenance is required, and end up subject to substantial costs under the Alberta Wetland Policy and *Water Act* as a component of compliance.

Since January 2016, Wheatland County has completed **six** road maintenance projects requiring *Water Act* approvals for wetland impacts. The environmental studies required for *Water Act* application submissions associated with these impacts cost a cumulative total of **\$172,590**. As Wheatland County is not currently prepared to perform permittee-based wetland restorative replacement, in order to proceed with the road maintenance works a cumulative total of **\$219,902** has been paid to Ducks Unlimited Canada in in-lieu fees. This compensation value would rise to **\$336,545** if a sixth project receives final approval. The values given do not include other environmental components of the projects such as erosion and sediment control, borrow pit assessments, bird nest sweeps, and costs of materials such as silt fence or silt curtains to protect wetlands and waterways.

While private developers and industries may incorporate the cost of environmental studies and wetland replacement into their business models, municipalities are limited in their ability to generate funds in a similar fashion. The requirements therefore place an additional burden on the municipal ratepayer as the cost of road maintenance rises.

To relieve this burden and resolve the discrepancy between the economic abilities of municipalities as compared to other entities which impact wetlands, it is requested that the Government of Alberta recognize existing impacts to wetlands within existing right of ways by assigning a "blanket" value of D to all wetlands currently impacted by roads. This would reduce the extent of environmental studies required by eliminating the need for an Alberta Wetland Rapid Evaluation Tool (ABWRET) assessment, and significantly reduce the amount of in-lieu compensation owed, effectively reducing the costs borne by municipalities for road maintenance and re-building. Under this proposed model, Wheatland County's compensation payment obligations to date on six road projects would have fallen by **61%**; a noteworthy benefit to our road program

while still recognizing the importance of Alberta's Wetland Policy (new total for six projects: \$130,594). If the Government of Alberta were to additionally consider exempting impacts less than one hectare in size, Wheatland County's compensation payments to date would have fallen by a total of **76%** (two road projects of six qualify, new total: \$79,559.50). In addition, the cost of environmental studies would be reduced, as ABWRET assessments would no longer be necessary to determine wetland value.

A. Table of Wheatland County Wetland Impact Costs

Road Project	Environmental Studies Cost	Compensation Payment Cost	Hectares of Wetlands Impacted
Rg. Rd. 245	\$9,728	\$71,780	0.97 (Replaced with 3.88)
Duck Lake Road – Rg. Rd. 183 Phase 2	\$20,667	\$44,250	0.64 (Replaced with 2.5)
Rg. Rd. 201	\$55,457	\$48,020	0.90 (Replaced with 2.71)
Rg. Rd. 270	\$24,714	\$48,822	2.03 (Replaced with 2.64)
Rg. Rd. 254	\$17,460	\$7,030	0.32 (Replaced with 0.38)
Duck Lake Road – Rg. Rd. 183 Phase 1	\$44,564	*\$116,643	*2.37 (Replaced with 6.59)
Totals	\$172,590	\$219,902 *\$336,545	4.86 ha impacted (*7.228) 12.1 ha replaced (*18.702)

Values have not yet been paid, approval not complete on date of report

B. Constructed Road Example – Wetland Policy Preventing Road Building

Wheatland County wanted to construct a road on a right of way for landowner access and had two options. The first was one-half mile off of a range road going west, the second was one mile off of a township road going north. Both would impact wetlands along the existing right of way. It was determined that the one-half-mile option would cost \$43,930 for environmental studies, and a minimum of \$28,851 for compensation payment. The one-mile option would cost \$53,315 for environmental studies and a minimum of \$7,611 for compensation payment. The compensation could have cost as much as \$230,808 for the first option and \$60,888 for the second option if the wetlands had been "A" value. It was decided to not go ahead with the project, and as a result the landowner does not have access to their parcel.

C. Wetland Policy Prior to the Current Alberta Wetland Policy

Alberta's *Wetland Management in the Settled Area of Alberta, An Interim Policy* was approved in 1993. The Policy "set out a no net loss formula/hierarchy for slough/marsh wetlands in the White Area of the province" (Kwasniak, 2015). Under this Policy, similar to the current Alberta Wetland Policy, compensation ratios were developed in 2007 to address wetlands that were authorized to be depleted or degraded. A minimum replacement of three to one was commonly used, but could change according to site-specific circumstances and the approval of Alberta Environment (Kwasniak, 2015). The Interim Policy was replaced by the Alberta Wetland Policy in 2015.

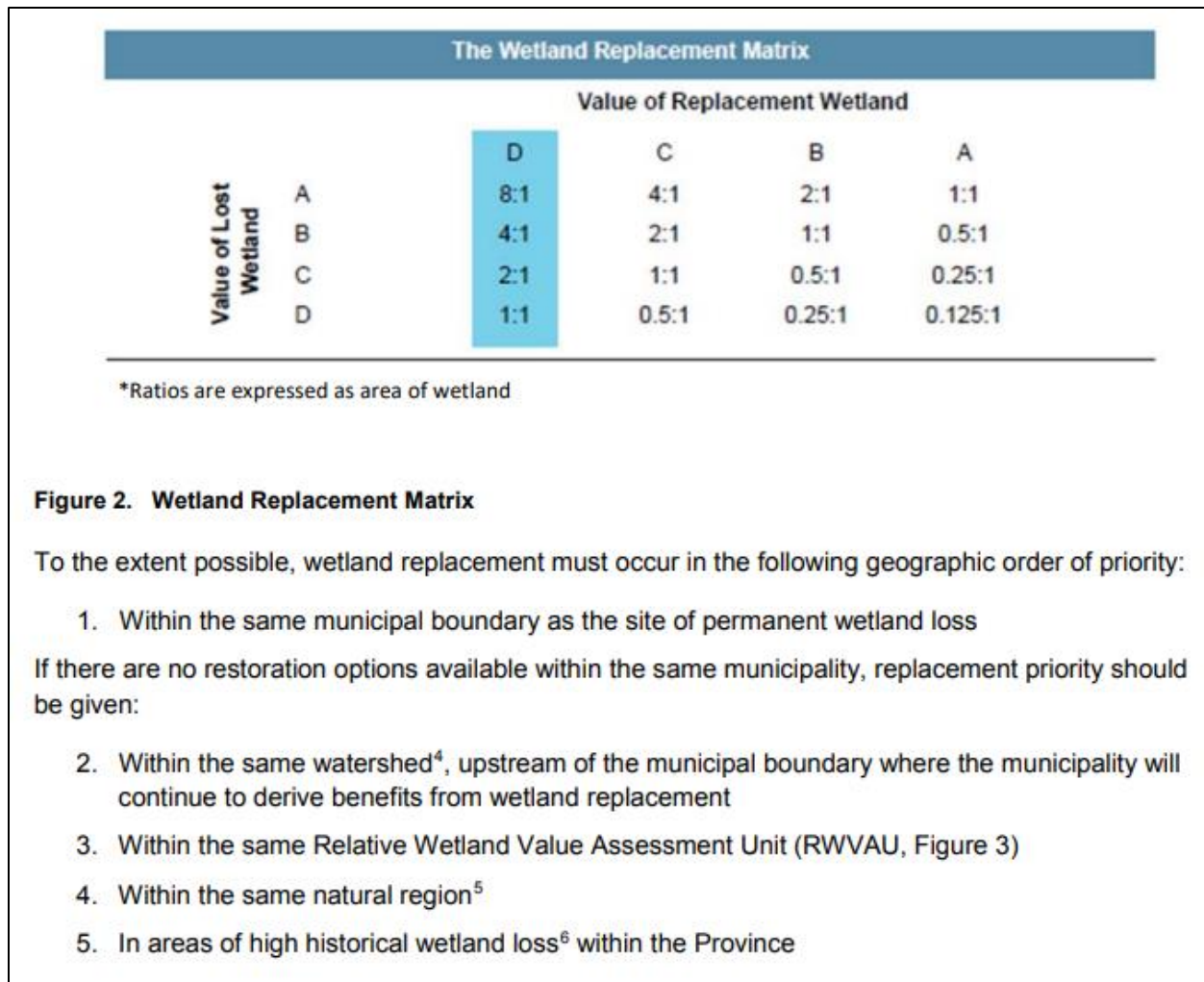
D. Table of Environmental Costs for Wheatland County Road Projects

Road	Year	Wetland Assessments Cost	Erosion and Sediment Control Plan Cost	Borrow Pre-Disturbance Assessment	Bird Sweep	Compensation Cost (excluding GST)	Hectares of Wetland Impacted	
RR 183 Duck Lake Phase 1	2016	\$38,188	\$0	\$0	\$0			
	2017	\$6,274	\$0	\$0	\$0			
	2018	\$102	\$0	\$0	\$0	\$116,643 - *Not yet paid	*2.37 (replacement area 6.59 ha)	
RR 183 Duck Lake Phase 2	2016	\$14,500	\$0	\$0	\$0			
	2017	\$3,152	\$0	\$0	\$0			
	2018	\$3,015	\$0	\$0	\$0	\$44,250	0.64 (replacement area 2.5 ha)	
RR 270	2016	\$12,422	\$0	\$0	\$0			
	2017	\$8,027	\$0	\$0	\$0			
	2018	\$4,265	\$8,605	\$7,089	\$2,741	\$48,822	2.033 (replacement area 2.639 ha)	
RR 254	2016	\$2,515	\$0	\$13,998	\$0			
	2017	\$8,083	\$0	\$2,553	\$0			
	2018	\$6,862	\$0	\$410	\$0	\$7,030	0.32 (replacement area 0.38)	
RR 201	2016	\$15,217	\$0	\$0	\$0			
	2017	\$36,172	\$0	\$791	\$0			
	2018	\$4,068	\$9,139	\$4,900	\$1,255	\$48,020	0.895 (replacement area 2.713 ha)	
RR 245	2016	\$5,154	\$0	\$0	\$0			
	2017	\$2,853	\$0	\$0	\$0			
	2018	\$1,721	\$11,115	\$0	\$0	\$71,780	0.97 (replacement area 3.88 ha)	
Total Costs		\$172,590	\$28,859	\$29,741	\$3,996	\$219,902	4.86 (replacement area 12.11 ha)	
						Total Compensation In-Lieu with Unpaid Costs	\$336,545	7.23 (replacement area 18.70 ha)

The table above shows that wetland assessments make up the majority of costs for environmental studies associated with road construction. Erosion and Sediment Control Plans, Borrow Pit Pre-Disturbance Assessments, and Bird Sweeps, are completed to meet other regulatory requirements aside from the Alberta Wetland Policy and achieve industry best practice. A limitation of the data is that wetland assessment costs are not divided into components such as wetland delineation, ABRWET assessments to determine wetland value, and Wetland Assessment and Impact Reports to show the percentage of costs represented by each step, and thus the percentage that could be saved if ABRWET assessments were no longer required.

RR 183 Phase 1 has not received approval and therefore in-lieu fees have not been paid as of the date of this report. Wetland studies have been completed and the compensation payment has been calculated to show the additional cost impact if the project had been paid for.

E. Relevant Excerpts from the Alberta Wetland Mitigation Directive



Excerpt 1: From page 8 of the Alberta Wetland Mitigation Directive. This resolution is asking that impacted (lost) wetlands in road right of ways always be given a value of D. Since replacement wetlands are blanket-valued at D, this would result in a constant 1:1 ratio for in-lieu compensation payments.

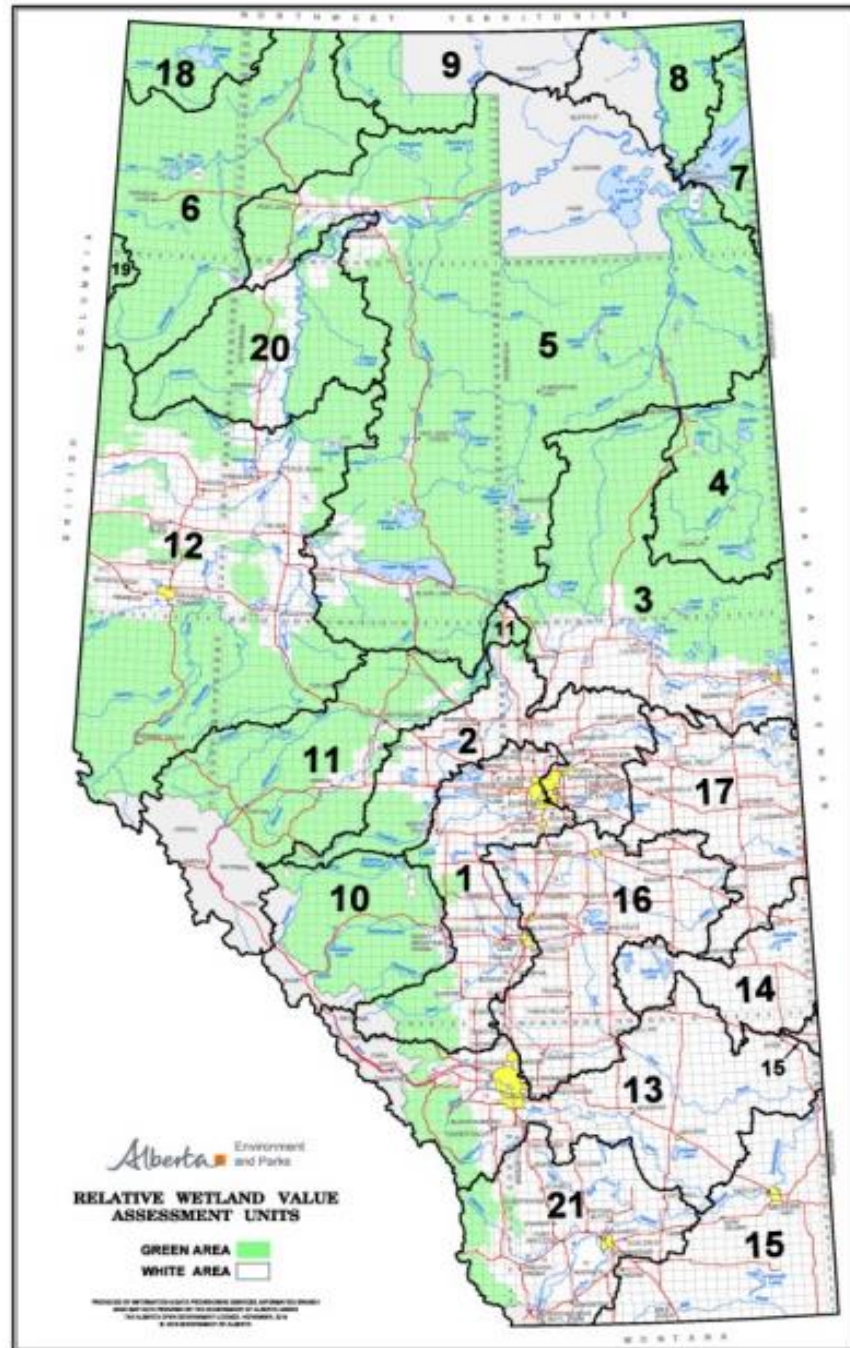


Figure 3. Relative Wetland Value Assessment Units (RWVAU)

Excerpt 2: The dollar value of in-lieu compensation payments is dependent on where a project falls on the Relative Wetland Value Assessments Units map (from page 9 of the Alberta Wetland Mitigation Directive). Wheatland County projects fall in either unit 13 or unit 16.

Schedule 2: Wetland Replacement *In-Lieu* Fee Rates

In-lieu rates in Table 2 are based on the following:

- Average land values within each RWVAU, per hectare (except for Public Lands in the Green Area)
- The cost per hectare for materials and labor to restore a previously existing wetland that has been drained
- The cost of monitoring a restored wetland
- An administrative fee

Table 2. *In-lieu* Fee Rates per Hectare

	Relative Wetland Value Assessment Unit	<i>In lieu</i> Rate (\$/ha)
Public Lands ⁷ (in the Green Area)	Units 1-12 and 18-21	10,300
Public Lands (in the White Area)	1	19,100
	2	19,400
	3	19,100
	4	19,100
	5	18,400
	6	18,200
	7	18,400
	8	18,400
	9	18,400
	10	19,100
All other lands ⁸ (province-wide)	11	19,400
	12	18,500
	13	17,700
	14	18,200
	15	17,300
	16	18,500
	17	18,600
	18	18,200
	19	18,200
	20	18,200
	21	17,700

Excerpt 3: From page 12 of the Alberta Wetland Mitigation Directive, the above information explains how values are derived per Relative Wetland Value Assessment Unit. In Wheatland County, projects that fall in Unit 16 multiply the replacement area in hectares by \$18,500 to determine value of compensation paid. In Unit 13, the replacement area in hectares is multiplied by \$17,700 to determine value of compensation due. The replacement area in hectares is currently subject to a multiplier in accordance with the ratios in excerpt 1. Requesting that all wetlands in road right of ways be granted a D value eliminates the multiplier, significantly reducing the value of in-lieu compensation due.

Works Cited

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