

October 31, 2023

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GraceLife Church
51529A Range Road 262
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Attn: Rob Chomiak

RE: Field Verification of Wetland within a Portion of LSD 13-35-051-26-W4M in Parkland County

1 INTRODUCTION

Paragon Soil and Environmental Consulting Inc. (Paragon) was approached by Chomiak Builds Ltd. on behalf of GraceLife Church of Edmonton to complete a field wetland assessment, including site visit, wetland inspection, and *Alberta Wetland Rapid Evaluation Tool – Actual* (ABWRET-A) description of a wetland identified within the proposed church expansion (Project Area). This wetland was previously identified in a desktop assessment outlined in a letter to GraceLife Church dated October 2, 2023 from Paragon. The Project Area is located to the east of Range Road 262 and south of Highway 627, directly south of and adjacent to the current GraceLife Church of Edmonton property at 51529A Range Road 262, Spruce Grove, Alberta shown in Figure 1.

2 METHODS

Paragon conducted a field wetland assessment on October 11, 2023 to confirm, clarify, and gather new information about the wetland in the Project Area. Wetland boundaries within the Project Area that had previously been mapped during the desktop exercise were verified with the wetland described and visually documented by taking photographs and compiling a representative species list, following the process outlined in the *Alberta Wetland Identification and Delineation Directive* (GOA 2015a). Regulated weed species were also recorded.

Permission for access was only granted within and east of the Project Area; therefore, the wetland boundary overlapping private property in the furthest south portion of LSD 13-35-051-26-W4M was not included in the field assessment. Following Delineation Directive and ABWRET-A terminology, the term “AA” (for “assessment area”) is used to discuss the wetland boundary that was accessible, within and east of the Project Area and field-verified (GOA 2015a; 2016a).

Following field inspection, data were reviewed and survey results were summarized. Any observed direct and/or indirect impacts on the wetland within the Project Area (AA) were also evaluated. ABWRET-A “F” and “S” forms were prepared, along with the wetland boundary digital shapefile layer, as required for an application under the *Water Act*.

3 RESULTS

3.1 Wetland Boundary, Classification and Field Observations

Wetland boundaries and classification within the AA previously mapped using desktop imagery were updated following the field visit. The field-verified AA and revised wetland boundary is presented in Figure 1.

The AA is about 1.1 ha of the total 2.0 ha wetland. The AA is a seasonal graminoid marsh wetland (MG III), defined by its characteristics and indicators observed in the wettest zone of the wetland. Wetland classification (class, form, and type) is derived from the *Alberta Wetland Classification System* (GOA 2015b). A representative photograph of the wetland is presented below (Photo 1).

Plant species identified within the AA were predominantly forbs, such as common cattail (*Typha latifolia*) and common plantain (*Plantago major*), along with graminoids, such as canary grass species (*Phalaris* sp.), slough grass (*Beckmannia syzigachne*), and manna grass (*Glyceria* sp.). Several non-native and invasive species including the noxious creeping thistle (*Cirsium arvense*) were also noted. The presence of non-native and invasive species is common for wetlands near anthropogenic activities/disturbance and areas have been tilled for agricultural use in the past. A plant species list is provided in Table 1 below.

The furthest eastern extent of the wetland within the AA is presently cultivated cropland while the main wetland core within the AA is no longer cultivated. Compared to historical aerial imagery, it appears that the overall cultivated extent of the wetland has decreased since the construction of a road network in the Project Area. This is likely because of a relatively higher (seasonally above ground) water table due to altered historic surface water flow toward the northwest within the Project Area.

Two one-inch polyvinyl chloride (PVC) piezometers were also observed within the AA wetland boundary; these were installed by third-party contractors during a hydrogeological assessment in Summer 2023.

3.2 ABWRET-A

The "F" and "S" forms of the ABWRET-A have been completed and are provided in a MS Excel spreadsheet in digital form separate from this memo. Note that one component of the "F" form can only be completed after submission of the wetland boundary shapefile to the Government of Alberta; line number (#) F68 requires approximate boundaries of the wetland's catchment as shown in a map the Government will provide as part of the data request.



Figure 1 Project Area, Assessment Area and Revised Wetland Boundary

The field-verified wetland boundary (AA, orange line) shown in relation to the current land where the GraceLife Church is located (red line) and the area of interest for expansion (Project Area, blue line). The revised wetland boundary includes both AA (orange line) and desktop determined area (yellow line).



Photo 1 Center of Seasonal Graminoid Marsh Wetland (MG III) in 13-35-051-26-W4M, facing east (October 11, 2023)

Table 1 Plant Species List for Graminoid Marsh Wetland (MG III) in 13-35-051-26-W4M

Vegetation Layer	Scientific Name	Common Name
Forb	<i>Typha latifolia</i>	common cattail
	<i>Plantago major</i> *	common plantain*
	<i>Cirsium arvense</i> **	creeping thistle**
	<i>Thlaspi arvense</i> *	stinkweed*
	<i>Taraxacum officinale</i> *	common dandelion*
	<i>Draba</i> sp.	draba species
	<i>Potentilla norvegica</i>	rough cinquefoil
	<i>Rumex</i> sp.	dock
	<i>Trifolium hybridum</i> *	alsike clover*
Graminoid	<i>Phalaris</i> sp.	canary grass
	<i>Beckmannia syzigachne</i>	slough grass
	<i>Glyceria</i> sp.	manna grass
	<i>Carex aquatilis</i>	water sedge
	<i>Hordeum jubatum</i>	foxtail barley
	<i>Scirpus</i> sp.	bulrush
Bryophyte	<i>Campyllum</i> sp.	campyllum moss
<p>NOTES: Species listed in observed order of abundance (highest to lowest) within each layer. * ABWRET invasive list species and is exotic/introduced. ** Noxious weed (GOA 2016b).</p>		

4 REFERENCES

- Government of Alberta (GOA). 2015a. *Alberta Wetland Identification and Delineation Directive*. Water Policy Branch. Edmonton, Alberta.
- GOA. 2015b. *Alberta Wetland Classification System*. Policy and Planning Division, Water Policy Branch. Edmonton, Alberta.
- GOA. 2016a. *Guide to the Alberta Wetland Rapid Evaluation Tool – Actual (ABWRET-A) for the Boreal and Foothills Natural Regions*. Water Policy Branch. Edmonton, Alberta.
- GOA. 2016b. *Weed Control Act, Alberta Regulation 19/2010, Weed Regulation*. Alberta Queen's Printer. Edmonton, AB.

5 SUMMARY AND CLOSING

A seasonal (Class III) graminoid marsh wetland is present within and east of the Project Area (i.e., AA) with an estimated extent of 1.1 ha of the total 2.0 ha revised wetland boundary. The information summarized in this report along with the associated digital wetland boundary file (formatted to provincial standards for submissions) and ABWRET-A forms can be used in further site planning and/or applications under the *Water Act*. The seasonal (Class III) wetland identified would be subject to authorization under the *Water Act* and wetland replacement considerations would be required under the Alberta Wetland Policy. Please note that commencing an activity that has the potential to impact a wetland without first obtaining a *Water Act* authorization would be considered a contravention.

If the intent is to move forward with the project, recommended next steps would include the submission of the ABWRET-A form and wetland boundary shapefile, preparation of a *Water Act* application, including the development of a Wetland Assessment and Impact Report (WAIR), electronic submission through the Digital Regulatory Assurance System (DRAS) and subsequent public notifications and responses to supplemental information requests, as needed. Project requirements may be refined following a discussion with the regulator.

We trust that this information meets your immediate requirements. Should you require any clarification or have any questions about the content provided in this summary or want additional assistance with navigating the Alberta Wetland Policy, please do not hesitate to contact the undersigned at (780) 434-0400.

Sincerely,

PARAGON SOIL AND ENVIRONMENTAL CONSULTING INC.

PER

Vincent Futoransky, B.Sc., P.Biol., R.P.Bio.

Senior Ecologist, Vegetation and Wetlands Practice Lead, Authenticating Wetland Professional