



Owl River Riparian Restoration and Enhancement Project 2023

Interim Report



wildlife | fish | habitat

**Owl River Riparian Restoration and
Enhancement Project
2023**

Interim Report

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EXECUTIVE SUMMARY

Syncrude Canada Ltd. (Syncrude) is expanding its operations at the Mildred Lake site, collectively described as the Mildred Lake Extension Project (MLX). The Owl River Project, described herein, is one of two Fisheries and Oceans Canada (DFO) authorized offsets for the MLX project. This MLX offset builds on related habitat offset and restoration activities already conducted on the Owl River by Alberta Conservation Association (ACA) on behalf of Syncrude from 2011–2017 for the Base Mine Lake Project.

As part of this offset, Syncrude agreed to negotiate the isolation of livestock grazing from 21 kilometres (km) of riparian zone along the Owl River by installing wildlife-friendly livestock fencing, and associated replacement livestock watering systems, in cooperation with local landholders. ACA agreed to undertake these activities on behalf of Syncrude since ACA has successfully implemented previous riparian projects on the Owl River, as well as riparian projects in other regions of Alberta. Syncrude is providing the funding for all aspects of the project.

Since 2020, we have contacted all 11 private landholders in the Owl River Project area and met with most in person. In 2023, we signed one new 25-year Riparian Habitat Enhancement Agreement, bringing the total number of agreements signed to five since this project was initiated in 2020. This new agreement protects an additional 39.70 hectares (ha) of riparian habitat along the Owl River. From 2020–2023, we have protected a total of 144.63 ha of riparian habitat and 11.74 km of riverbank with the cooperation of local landholders.

Signing agreements with landholders proved more challenging than anticipated. Reluctance and skepticism about signing agreements seems to have increased over the past few years.

Keywords: Alberta, Owl River, Lac La Biche, riparian habitat, riparian enhancement.

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TABLE OF CONTENTS

1.0	INTRODUCTION.....	1
2.0	STUDY AREA.....	1
3.0	MATERIALS AND METHODS	3
4.0	RESULTS.....	3
5.0	SUMMARY	8
6.0	LITERATURE CITED.....	9

LIST OF FIGURES

Figure 1.	Owl River study site with area of focus for riparian habitat enhancement agreements highlighted.	2
Figure 2.	Results of landholder engagement in riparian project agreements. Numbers indicate each unique landholder in Table 1.	4
Figure 3.	Riparian habitat agreement RCP-NE-006: 39.70 ha riparian habitat. Photos: Garret McKen, ACA.	7

LIST OF TABLES

Table 1.	Results of landholder engagement in riparian project agreements. Landholder numbers indicate each unique landholder in Figure 1.	5
Table 2.	Riparian habitat agreements signed with landholders on the Owl River, 2020-2023.	6

1.0 INTRODUCTION

Syncrude Canada Ltd. (Syncrude) is expanding its operations at the Mildred Lake site, collectively described as the Mildred Lake Extension Project (MLX) (Syncrude 2019). The Owl River Project, described herein, is one of two Fisheries and Oceans Canada (DFO) authorized offsets for the MLX project (Authorization 14-HCAA-00569). This MLX offset builds on related habitat offset and restoration activities already conducted on the Owl River by Alberta Conservation Association (ACA) on behalf of Syncrude from 2011–2017 for the Base Mine Lake Project.

The target section of the Owl River is classified by the Government of Alberta as a Class A watercourse (ASRD et al. 2007), as it is considered a primary spawning river for walleye (*Sander vitreus*) (Syncrude 2019). Restoring and protecting degraded riparian zones along the 30-km section of the Owl River between Lac La Biche and the upstream spawning habitats, and the associated improvements in fish habitat and water quality, provides an excellent opportunity to support provincial walleye population recovery efforts in the Lac La Biche basin. By fencing areas surrounding the 30-km section to eliminate livestock grazing and other disturbance within and/or adjacent to the watercourse, riparian and instream habitat is anticipated to improve (Syncrude 2019).

Nine kilometres of this 30-km riparian zone were protected through previous work completed in 2012 (Johns and Cantin 2012). For the current MLX offset, Syncrude’s objective is to negotiate agreements with interested landholders to protect the remaining 21 km of this section from disturbance related to livestock, OHVs, and other potential sources. This would be accomplished by installing wildlife-friendly fencing and providing replacement livestock watering systems, as well as through annual payments for maintaining the ecological goods and services encompassed by these agreements.

ACA is well positioned to undertake these activities on behalf of Syncrude given our previous success implementing riparian projects on the Owl River, as well as riparian projects in other regions of Alberta. Syncrude is providing the funding for all aspects of the project.

In this report, we present results of our 2023 activities, as well as summarize the results of all riparian enhancement activities undertaken by ACA on behalf of Syncrude since 2020. Detailed results of the work completed in previous years are provided in Dowbush et al. (2023) and Dowbush et al. (2022).

2.0 STUDY AREA

The Owl River is located 220 km northeast of Edmonton in the Lac La Biche sub-basin. It is the major inlet to Lac La Biche, draining an area of 3,364 km², with the Piche River and Square

Creek as major tributaries (Figure 1). The Owl River is one of only 60 Class A watercourses in the province. These are critical fish habitat protection areas designated by the *Water Act* Codes of Practice (ASRD et al. 2007, AEP 2016). Our study area starts at the mouth of the Owl River where it enters Lac La Biche, extends approximately 30 km upstream, and runs through grazing leases interspersed with stretches of private land, most of which support livestock grazing (see Syncrude 2019).

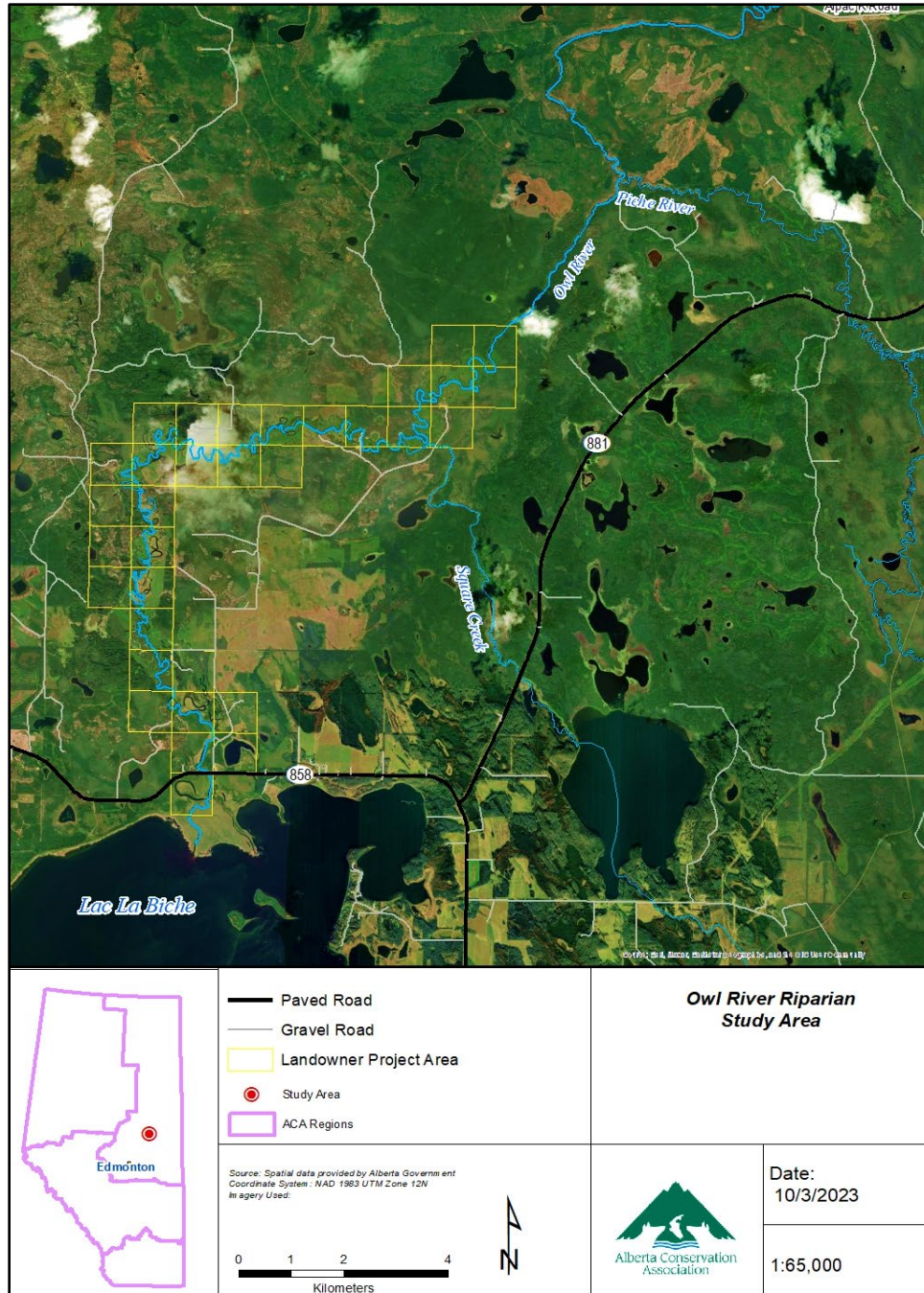


Figure 1. Owl River study site with area of focus for riparian habitat enhancement agreements highlighted.

3.0 MATERIALS AND METHODS

In fall 2020, ACA began seeking new opportunities to work with local landholders to protect riparian habitat along the Owl River. If a landholder expressed interest in participating in the project, we set up a meeting to tour their land and determine what enhancements would be mutually beneficial to both the landholder and their riparian habitat. Fencing, either permanent wildlife-friendly or temporary electric, is the primary tool offered for riparian conservation, supplemented with portable off-site watering systems where needed. In addition to these tools, participating landholders are offered a per-hectare payment for the riparian habitat they protect.

On private land, partnerships with landowners are for the long-term (25 year) lease of a minimum 50-m riparian buffer on each side of the river. Formal agreements signed between ACA and the landowner specify the terms of the agreement, including annual lease payments, work to be completed on the habitat, and the responsibilities of each party. For grazing leaseholders interested in participating in the project, we would work with Alberta Public Lands and the leaseholder to negotiate the establishment of fences and new lease boundaries and assign responsibilities to each party. Leaseholders would be given a one-time payment per hectare to compensate them for any riparian habitat that is removed from their current grazing lease.

4.0 RESULTS

In 2023, we contacted all landholders with whom we had signed agreements in previous years (i.e., 2020–2022), as well as all landholders that were still considering their options to participate in the project when contacted in 2022. Of the 11 private landholders in the project area, four have partnered on riparian conservation initiatives with ACA (Figure 2, Table 1).

In addition to speaking with landholders, we signed one new 25-year Riparian Habitat Enhancement Agreement, bringing the total number of agreements signed to five (Table 2). This new agreement (RCP-NE-006, Figure 3) protects 39.70 ha of riparian habitat, and expands upon a previous agreement (RCP-NE-002) signed in 2021. No additional enhancements were needed.

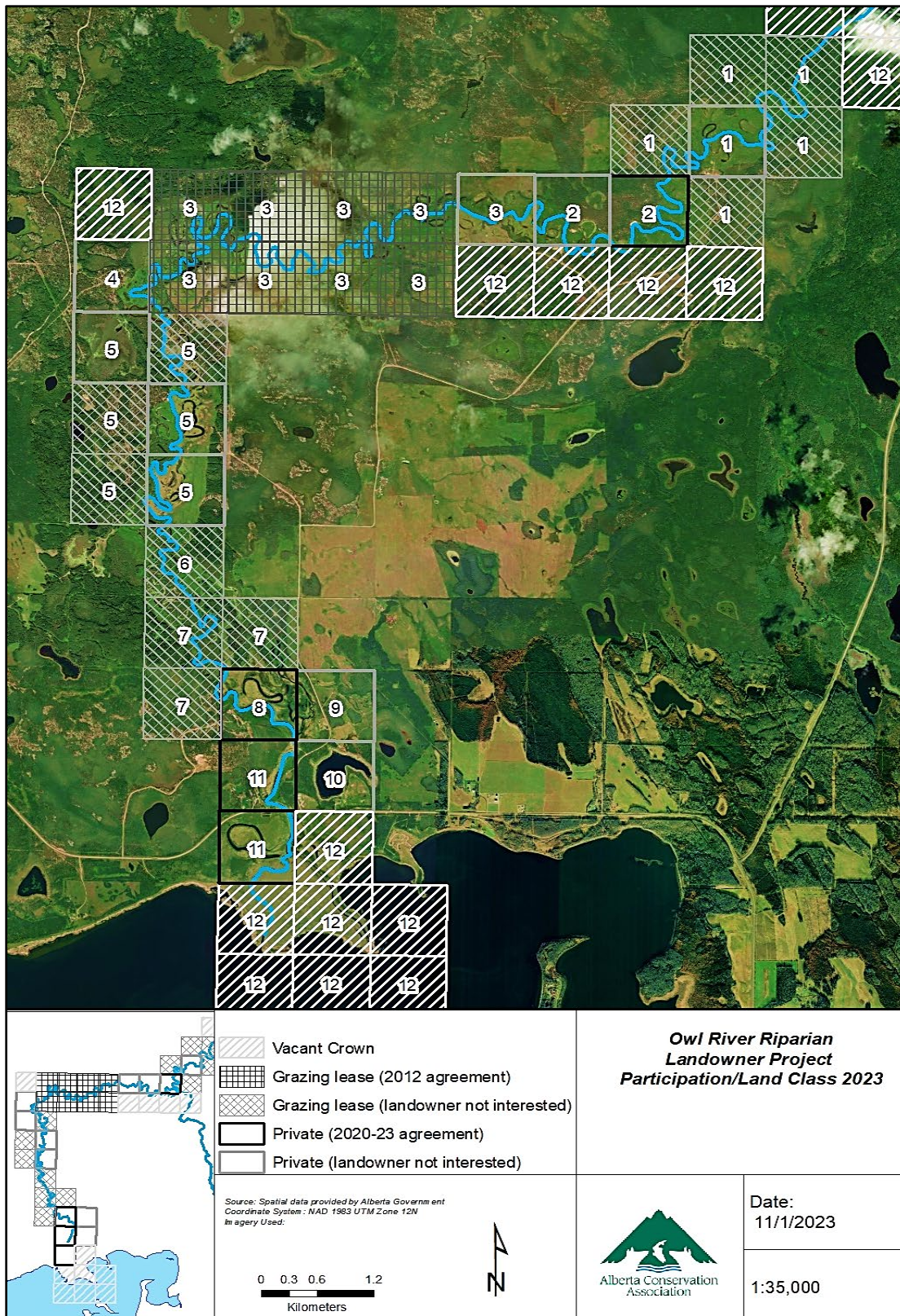


Figure 2. Results of landholder engagement in riparian project agreements. Numbers indicate each unique landholder in Table 1.

Table 1. Results of landholder engagement in riparian project agreements. Landholder numbers indicate each unique landholder in Figure 1.

Landholder	Protected Riparian Area (ha)	Protected Shoreline (km)	Landholder Riparian Agreement Status
1	0.00	0.00	No – Multiple reasons
2	30.21	4.56	Yes – Agreement signed for one quarter. No – For one quarter (unsure of plans for future use)
3*	224.00	15.47	Yes – For lease land. No – For private land (fence maintenance concerns, unsure of plans for future use)
4	0.00	0.00	No – All title holders unable to agree
5	0.00	0.00	No – Multiple reasons
6	0.00	0.00	No – Multiple reasons
7	0.00	0.00	No – Multiple reasons
8	49.42	2.81	Yes – Two agreements signed
9	0.00	0.00	No – Multiple reasons
10	0.00	0.00	No – Multiple reasons
11	65.00	4.37	Yes – Two agreements signed
12	Vacant Crown	Vacant Crown	Vacant Crown
2020–2023	144.63	11.74	
All Years	368.63	27.21	

* - 2012 agreement

Table 2. Riparian habitat agreements signed with landholders on the Owl River, 2020-2023.

Agreement	Protected riparian area (ha)	Protected riverbank (km)	Annual cost (\$)	Term
RCP-NE-002	25.30	4.37	10,120	Year 3 of 25
RCP-NE-003	34.49	1.41	14,324	Year 2 of 25
RCP-NE-004	14.93	1.40	6,028	Year 2 of 25
RCP-NE-005	30.21	4.56	12,084	Year 2 of 25
RCP-NE-006	39.70	0.00	15,880	Year 1 of 25
TOTALS	144.63	11.74	58,436	

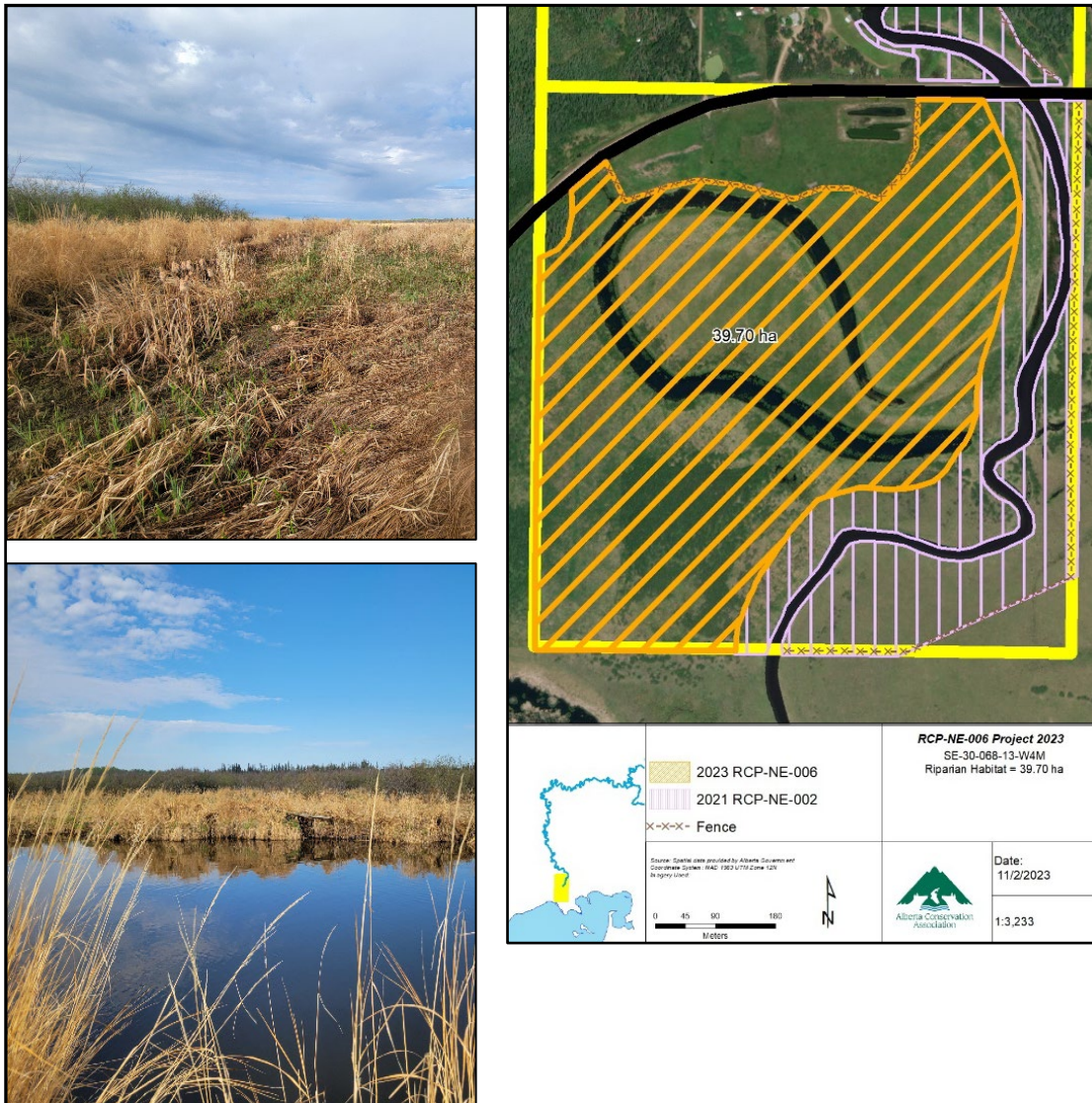


Figure 3. Riparian habitat agreement RCP-NE-006: 39.70 ha riparian habitat. Photos: Garret McKen, ACA.

5.0 SUMMARY

Since 2020, we have contacted all 11 private landholders in the Owl River Project area and met with most in person. The Riparian Habitat Enhancement Agreement signed in 2023 protects an additional 39.70 ha of riparian habitat along the Owl River close to where it enters Lac La Biche. This brings the total area of protected riparian habitat to 144.63 ha and protected riverbank length to 11.74 km since this project was initiated in the fall of 2020. Signing agreements with landholders proved more challenging than anticipated. Reluctance and skepticism about signing agreements seem to have increased over the past few years. The reasons for not wanting to participate were varied but were generally related to insufficient payments, not wanting any type of fencing, not wanting to lose grazing lands, disagreement between title holders, and landholders being unsure of the future plans for their land, and not wanting to limit their options with an agreement.

In 2024, ACA will continue monitoring existing agreements and meeting with agreement holders to address any questions or concerns. We will also begin preparations for the riparian health assessment, and the water quality, instream habitat, macroinvertebrates, and fish community assessments to be completed in 2025. Once completed, these results should give us a good indication as to whether we are achieving our goal of improving riparian health, water quality, and walleye spawning habitat in the Owl River.

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