


# Notice of Alteration Form



File No. :	Environment Act Licence No. : 1339R		
Legal name of the Licencee: Canadian Kraft Paper Industries Ltd.			
Name of the development: Canadian Kraft Paper Industries Ltd.			
Category and Type of development per Classes of Development Regulation:			
Forestry		Pulp and paper mills	
Licencee Contact Person: Lisa Jones			
Mailing address of the Licencee: PO Box 1590			
City: The Pas		Province: MB	Postal Code: R9A 1L4
Phone Number: (204) 623-8450		Fax:	Email: lisa.jones@ckpi.com
Name of proponent contact person for purposes of the environmental assessment (e.g. consultant):			
Phone:		Mailing address:	
Fax:			
Email address:			
Short Description of Alteration (max 90 characters):			
Continuation of the Landspredding Pilot Study Project on Canadian Kraft Paper's millsite.			
Alteration fee attached: Yes: <input type="checkbox"/> No: <input checked="" type="checkbox"/>			
If No, please explain:			
Date: 2023-07-03	Signature: 		
	Printed name: Lisa Jones		
<p>A complete Notice of Alteration (NoA) consists of the following components:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Cover letter</li> <li><input type="checkbox"/> Notice of Alteration Form</li> <li><input type="checkbox"/> 1 hard copy and 1 electronic copy of the NoA detailed report (see "<a href="#">Information Bulletin - Alteration to Developments with Environment Act Licences</a>")</li> <li><input type="checkbox"/> \$500 Application fee, if applicable (Cheque, payable to the Minister of Finance)</li> </ul>		<p><b>Submit the complete NoA to:</b>          Director, Environmental Approvals Branch          Manitoba Environment, Climate and Parks          1007 Century Street          Winnipeg, Manitoba R3H 0W4  <a href="mailto:EABDirector@gov.mb.ca">EABDirector@gov.mb.ca</a></p> <p><b>For more information:</b>          Phone: (204) 945-8321 Fax: (204) 945-5229  <a href="https://www.gov.mb.ca/sd/permits/licenses_approvals/eal/licence/index.html">https://www.gov.mb.ca/sd/permits/licenses_approvals/eal/licence/index.html</a></p>	
<p><b>Note: Per Section 14(3) of the Environment Act, Major Notices of Alteration must be filed through submission of an <a href="#">Environment Act Proposal Form</a> (see "<a href="#">Information Bulletin – Environment Act Proposal Report Guidelines</a>")</b></p>			

July 3, 2023

TM-10053

Code #09-LF-009

Siobhan Burland Ross,  
Acting Director  
Environmental Approvals Branch  
Manitoba Environment and Climate  
14 Fultz Boulevard  
Winnipeg, Manitoba  
R3Y 0L6

**Re: Canadian Kraft Paper Biosolids Landspreading Project – 2023 Continuation**

Dear Ms. Burland Ross:

Since October 2017 Canadian Kraft Paper Industries (CKP), with the approval of Manitoba Environment and Climate (MEC), has undertaken a Landspreading Pilot Study Project which involves removing biosolids from the effluent treatment system and applying it to industrial lands on CKP's millsite. The initial Pilot Study approval was valid until April 30, 2022. On July 20, 2022, the NoA was extended to include the 2022 landspreading project. CKP is requesting a NoA for 2023 while the recently submitted Environmental Act Proposal to carry out biosolids landspreading onsite is being approved. This will allow for the removal of primary biosolids from the effluent treatment system in order to maintain the system's treatment efficiency. In addition to landspreading onsite, CKP is carrying out a trial this summer exploring the use of biosolids as a soil amendment on agricultural lands. This trial was authorized by the Approvals Branch on May 17, 2023. Table 1 summarizes the volume and location of the landspreading on CKP property in 2022.

*Table 1: 2022 Landspreading Volume and Location*

Year	Site	# Hectares	Rate (BDT/Ha)	Bone Dry Tons of Material (BDT)	Source of Biosolids
2022	2A zone 1&3	4.7	833	2,388.40	South Settling Basin
2022	Capped Landfill 1 zone 2 <sup>[1]</sup>	2.9	31	90.43	South Settling Basin
<b>Total</b>				<b>2,478.83</b>	

[1] A small portion of CLF1 (Zone 2) was used in 2023 landspreading project.

As per the June 2018 NoA, the biosolids landspread on Sites 2A zone 2, 2B, portions of the Capped Landfill 1, will no longer be tested annually (testing for 3 years after the application is required). All other areas will be tested in fall 2023. Portions of the primary and secondary biosolids spread on Capped Landfill 1 have been seeded, the remaining portions that received biosolids in 2021 will be reseeded in spring 2023 as these areas were too soft to access last fall. Portions of South of Water Treatment, and Capped Landfill 2 will also be seeded in 2023. Results of past year's seeding have been impressive with sites showing large amounts of vegetation growth, see photos from 2022 in Appendix A.

For 2023, primary biosolids from the North Settling Basin will be dredged in order to maintain the health of the effluent treatment system. Based on previous years, it is estimated that roughly 3000 BDT will be removed from the settling basin. The plan is to spread this material on approved sites on CKP property.

### Biosolids Landspreading in 2023:

On August 16, 2021, MECP approved the spreading of an additional layer of biosolids on previously landspread sites, with the stipulation that phosphorus concentrations in the soil were less than 60 ppm. CKP plans to landspread an additional layer of biosolids on sites where the phosphorus concentration is below 60 ppm limit. Based on the fall sampling program CKP is requesting to add an additional layer of biosolids to CLF1 Zone 4, North of Sawmill, and Site 2A Zone 2 (if needed). In addition, CKP is proposing to establish a new landspreading site north of the administration building. Background soil testing is being performed on this location in accordance with the June 12, 2018, NoA. Pending the test results, this area may be utilized in 2023. Note that not all the locations below will be used in 2023 as it is estimated that approx. 3000 BDT will be removed from the NSB this summer. The request for approval of 4 sites is to ensure that if some sites are too soft to access, there are other landspreading areas available for use.

*Table 2: 2023 Proposed Landspreading Sites (hectares estimated from Google Earth)*

Source of Biosolids in 2023	Site	#Hectares	Rate	Bone Dry Tonnes of Material
NSB	CLF1 (Zone 4)	4.77	691.4 Tonne/Ha or 1' in depth	3,298
NSB	North of Sawmill	1.41	691.4 Tonne/Ha or 1' in depth	975
NSB	North of the Administration Building (if needed)	1.95	691.4 Tonne/Ha or 1' in depth	1,348
NSB	Site 2A Zone 2 (if needed)	1.18	691.4 Tonne/Ha or 1' in depth	816
<b>Total</b>		9.31		6,437

*Figure 1: CKP Millsite with Proposed Landspreading Sites North of the Sawmill, North of the Administration Building, and Site 2A Zone 2*



Figure 2: Proposed Landspreading Site Capped Landfill 1 Zone 4, represented by the yellow polygon.



Table 3 lists the available phosphorus from 15 and 30 cm depths (composite samples) on landspreading sites at CKP. Note that the results from the control areas and site 2D, are all background soil values (no biosolids were applied on these sites). The remaining results are from sites with biosolids applied over the soils, as such the samples would contain a combination of both native soils and biosolids. There are several sites, that include Site 2A/2B, North of Sawmill, South of Water Treatment, and portions of CLF1, where available phosphorus levels are currently below 60 ppm after biosolids application. Based on the data collected between 2017 to 2022, CKP believes that the fall sampling data is indicative of current nutrient levels, as land management practices have not changed and there is a general downward trend of phosphorus levels over time. With 3-5 years of erosion and plant growth on these sites, biosolid depths have reduced to as little as 3-4" in some locations and in others have become homogenous with the underlying soils. This can be seen in the site photos in Appendix A.

Table 3: Available P for all Landspreading Sites from 2017-2022

Site	Depth (cm)	Year	Source of Biosolids/Material	2017	2018	2019	2020	2021	2022
Site 2A – Zone 1	0-15	2017	North Basin	1.8	35.3	25.1	25.0	-	30.4
Site 2A – Zone 2	0-15	2018	South Basin	1.8	118	58.5	36.8	18.4	-
Site 2A – Zone 3	0-15	2018	South Basin/Yard Waste	1.8	45.8	18.5	41.8	32.4	28.1
Site 2A Control	0-15	-	-	-	<1.0	<1.0	<1.0	<2.0	50.6
Site 2B	0-15	2018	South Basin	1.8	58.1	42.9	21.5	21.8	-
Site 2B Control	0-30	-	-	-	1.3	2.3	1.5	1.9	<1.0
CLF1 – Zone1	0-30	2018	South Basin	3.6	55.7	69.7	83.1	85.6	-
CLF1 – Zone 2	0-30	2019/2021	North basin/ Aerated Lagoon	3.6	-	49.4	72.0	103	195
CLF1 – Zone 3	0-30	2018/2019	Aerated Lagoon	3.6	113	244	137	166	249
CLF1 – Zone 4	0-30	2020	South basin	-	-	-	56.2	39.2	42.4
CLF2	0-30	2020	South Basin/ Aerated Lagoon	1.6	-	-	49.7	68.1	61.3
Site 2D	0-15	-	-	-	-	-	<1.0	-	-
North of Sawmill	0-15	2021	North Basin	-	-	2.8	-	27.0	36.4
South of Water Treatment	0-15	2021	North Basin	1.6	-	-	-	30.9	22.4

NOTE: That there is some variation in levels due to the sample locations changing each year.



Each site listed in Table 2 that is slated to receive biosolids will be bermed prior to application in order to capture any potential run-off. A formal monitoring program is in place to address and mitigate any non-compliances that may occur. Specifically, weekly inspections of the landspread areas will take place. This includes ensuring the integrity of the berms and removal of any standing water that has the potential to breach the berm using a vacuum truck. If a significant amount of water accumulates within any of the bermed areas, it will also be removed by a vacuum truck and taken to the effluent treatment system for treatment.

The 2023 dredging and landspreading pilot study project is tentatively scheduled to begin at end of August. CKP is requesting a response regarding the continuation of the Pilot Study Project by August 18, 2023, to ensure that there is no delay in the work planned for 2023.

Sincerely,

A black rectangular redaction box covering the signature of Lisa Jones.

Lisa Jones  
Environmental Coordinator

Attach.

cc: Robert Boswick, Environmental Approvals Branch, Winnipeg  
Cristal Huculak, Environmental Compliance and Enforcement, The Pas  
Leigh Johnston, Mill Services Manager  
Tamsin Patience, Director of Mill Services

## Appendix A



*Photograph 1: July 11, 2022 Vegetation growth on CLF1 Zone 1*



*Photograph 2: Site 2B July 18, 2022*





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*Photograph 3: Site 2A Zone 2 July 26, 2022*



*Photograph 4: South of Water Treatment August 24, 2022*





*Photograph 5: CLF2 Zone 1 Aug 26, 2022*



*Photograph 6: North of Sawmill August 31, 2022*





*Photograph 7: 2B October 11, 2022*



*Photograph 8: North of Sawmill October 11, 2022*