

Planning Application Information Sheet

Application Type: Agricultural Land Reserve File Number: 3015-20/E20250001 ALR Application Type: Soil or Fill Use 20.3(5) Electoral Area: E Date of Referral: January 28, 2025 Date of Application: January 16, 2025

Property Owner's Name(s): Crown Provincial

Applicant's Name:

Tolko Industries Ltd

SECTION 1: Property Summary

Legal Description(s): District Lot 6995, Cariboo District

Property Size(s): 35.13 ha. (86.81 ac.)

Area of Application: 35.13 ha. (86.81 ac.)

Location: North of Bysak Rd

Current Designation: n/a Min. Lot Size Permitted: n/a

Current Zoning: Resource / Agricultural (R/A) Min. Lot Size Permitted: 32 ha (79.07 ac.)

Proposal: To continue use as a landfill for wood and dirt waste. The applicant has previous ALC approval under the Soil Concervation Act (ALC File #D-20862) that permitted the deposition of fill in 1997 this was an extension of the original decision that was issued in 1987. The applicant has an existing Licence of Occupation (#516513) for the purpose of a sanitary landfill. Additionally the applicant has the necessary approvals with the Ministry of Environment for use of the land as a landfill.

Existing Buildings: none.

Proposed Buildings: none

Road Name: Bysak Rd Road Type: Gravel/Dirt Road Within the influence of a Controlled Access Highway: N/A Services Available: none

Within the confines of the Agricultural Land Reserve: Yes - fully within

Required to comply with the Shoreland Management Policy: N/A Name of Lake/Contributing River: unnamed creek Lake Classification: High

Within Development Permit Area: No

Adjoining Properties: (Source: B.C.A.A.)

	Land Use:	Lot Sizes:
(a) North	Crown land	n/a
(b) South	Crown land	n/a
(c) East	Crown land	n/a
(d) West	Crown land	n/a

Agricultural Capability Classification:

Canada Land Inventory: Class 1 = Best, Class 7 = Worst

% of parcel	Unimproved rating	Improved rating
100%	80% Class 5- Adverse climate and	80% Class 3- Stoniness and Topography
	Topography	20% Class 6- Topography
	20% Class 6- Topography	

The agricultural capability classifications of the property are Class 3, Class 5, and Class 6. The limiting factors are noted as adverse Cumulative minor adverse characteristics, undesirable soil structure, land Inundated by streams or lakes and topography.

Class 3 land has limitations that are more severe than for Class 2 land and management practises are more difficult to apply and maintain. The limitations may restrict the choice of suitable crops or

affect one or more of the following practises: timing and ease of tillage, planting and harvesting, and methods of soil conservation.

Land in Class 5 is generally limited to the production of perennial crops or other specially adapted crops. Productivity of these suited crops may be high. Class 5 lands can be cultivated and some may be used for cultivated field crops provided unusually intensive management is employed and/or the crop is particularly adapted to the conditions peculiar to these lands. Cultivated field crops may be grown on some Class 5 land where adverse climate is the main limitation, but crop failure can be expected under average conditions. Note that in areas which are climatically suitable for growing tree fruits and grapes the limitations of stoniness and/or topography on some Class 5 lands are not significant limitations to these crops.

Land in Class 6 provides sustained natural grazing for domestic livestock and is not arable in its present condition. Land is placed in this class because of severe climate, or the terrain is unsuitable for cultivation or use of farm machinery, or the soils do not respond to intensive improvement practises. Some unimproved Class 6 lands can be improved by draining and/or diking.

note: the information above is an interpretation of the British Columbia Soil Information Finder Tool – B.C. Agricultural Capability Map. An on-site visit of the property has not been conducted.

PLANNING COMMENTS

Background:

The CRD has received an Agricultural Land Reserve (ALR) application for Non-Farm Use to permit the existing Tolko landfill used for wood and dirt waste. The subject crown lease is zoned as Resource/ Agricultural (R/A) in the Central Cariboo Area Rural Land Use Bylaw No. 3503, 1999 and is located fully within the ALR.

Agricultural Land Commission approval was previously given to the applicant in 1984 for the deposition of wood waste and removal of gravel under the *Soil Conservation Act* (ALC File #D-20862). The approval was then extended by the ALC in 1987 for a period of ten years. The most recent extension the CRD was made aware of by the ALC was granted in 1997 for a period of 3 years. The applicant has an existing Licence of Occupation (#516513) for the purpose of a sanitary landfill.

Location and Surrounding:

The subject property is located 2.5 km northwest of the intersection of Hodgson Rd and Bysak Rd. The lot is currently cleared of trees to allow for existing activities.

CRD Regulations and Policies:

Central Cariboo Area Rural Land Use Bylaw 3503, 1999.

3.4 Economic Development

b) to encourage the growth and expansion of service commercial and industrial uses to locate within or in proximity to the existing settlement areas, but so as not to conflict with residential or agricultural uses.

Agricultural Policy 2016-9-9

- 4. j.) Non-Farm Use (must be first approved under a non-farm use application by the Agricultural Land Commission if land is located in the ALR) will be evaluated through an application for rezoning or a Temporary Use Permit application. Criteria that will be considered include:
 - 1. The length of the proposal;
 - 2. The scale of the proposal;
 - 3. Whether the non-agricultural use is pre-existing (how long it has been in use);
 - 4. Will the use cause a nuisance or be detrimental to agricultural operations located on the land or adjacent to the land;
 - 5. Whether the land can be returned to agricultural function;
 - 6. Whether the buildings associated with non-farm use can be converted back to farm use or be removed.

Rationale for Recommendations:

Planning staff are supportive of the proposed ALR application for non-farm use to allow for continued use of the existing Tolko landfill. The proposal is unlikely to have a negative impact on adjacent agricultural operations as it has existed in its current location for over 30 years and there are not currently any adjacent agricultural operations. The Resource/ Agricultural zone allows a private refuse disposal sites that fall under the regulatory control of the Province of British Columbia.

The Electoral Area 'E' Advisory Planning Commission (APC) has reviewed the application and is in favour of the application. The APC stated that the landfill has a very well managed plan and there are no changes to the previous operations.

The Ministry of Agriculture and Food (MAF) has provided comments on this application raising concerns about the Landfill Development Operation and Closure Plan. As the applicant currently has an approved operational certificate from the Ministry of Environment (MoE) staff assert it should be at the discretion of the MoE to request an updated Landfill Development Operation and Closure Plan. The Landfill Development Operation and Closure Plan is attached to this application.

The Ministry of the Environment has authorized the landfill (Authorization Number 7206, Tracking Number 310577)

In summary, planning staff are supportive of the proposed non-farm use application. The use is currently permitted in the Resource/ Agricultural (R/A) zone, the landfill has existed for over 30 years, and this application would permit its continued use within the ALR.

Recommendation:

That the Provincial Agricultural Land Commission application for Removal of Soil (Extraction) and Placement of Fill, pertaining to District Lot 6995, Cariboo District be authorized for submission to the Provincial Agricultural Land Commission, with a recommendation for approval.

REFERRAL COMMENTS

Advisory Planning Commission: February 13, 2025 See attached.

Ministry of Agriculture and Food: February 25, 2025 See attached.

ATTACHMENTS

Appendix A:	Application
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- Appendix B: General Map
- Appendix C: Specific Map
- Appendix D: Orthographic Map
- Other: Applicant's Supporting Documents Advisory Planning Commission Comments Ministry of Agriculture and Food Comments



Provincial Agricultural Land Commission - Applicant Submission

Application ID:	102739
Application Type:	Removal of Soil (Extraction) and Placement of Fill within the ALR
Status:	Submitted to L/FNG
Name:	Water, Land & Resource
Local/First Nation Government:	Cariboo Regional District

1. Parcel(s) Under Application

Parcel #1

Parcel Type	Crown
Legal Description	District Lot 6995, Cariboo Land District, That part of UCL being DL 6995 for Sanitary Landfill purposes, Containing 35.13 HA +/-, Lease/Permit/Licence #516513
Approx. Map Area	33.65ha
PID (optional)	No Data
PIN (optional)	003351794
Farm Classification	No
Civic Address	180 Hodgson Road, Williams Lake, BC V2G 3P6
Certificate Of Title	Licence of Occupation.pdf

Government Parcel Contact

First Name

Shannon

Last Name	Craig
Ministry or Department	Water, Land & Resource
Phone	
Email	
Crown Type	provincial

2. Other Owned Parcels

Do any of the land owners added No previously own or lease other parcels that might inform this application process?

3. Primary Contact

Туре	Third-Party Agent
First Name	CRYSTAL
Last Name	ARMES
Organization (If Applicable)	Tolko Industries Ltd
Phone	
Email	

4. Government

Local or First Nation Government: Cariboo Regional District

5. Land Use

Land Use of Parcel(s) under Application

Describe all agriculture thatLandfill for the purpose of adding non-prohibited wood/dirt wastecurrently takes place on theParcel(s).

Describe all agricultural

Grass seeding

improvements made to the parcel(s).

Describe all other uses that currently take place on the parcel(s).

Choose and describe neighbouring land uses

	Main Land Use Type	Specific Activity
North	Unused	Crown Land
East	Unused	Crown Land
South	Unused	Crown Land
West	Unused	Crown Land

None

6. Proposal

Are you removing soil and placing No fill in order to build a structure?

Has the ALC previously received an Yes application or Notice of Intent for this proposal?

Application or NOI ID	Tolko Industries Ltd ALC File #20862
What is the purpose of the proposal?	We are requesting an extension of the ALR Permit that was originally issued to Tolko's predecessor companies Riverside Forest Products Limited and Lignum Limited on May 29, 1985. The purpose of the permit is provide a landfill for the disposal of non-prohibited wood/soil waste.
Placement of Fill Project Duration	Based on 2023 report and anticipating similar annual wood waste volumes, we forecast 15 years of disposal.
Removal of Soil Project Duration	There has been no gravel extraction at the site since 2016 and there are no immediate plans for gravel extraction.

	Soil to be Removed	Fill to be Placed
Volume	0 m³	1100000 m ³
Area	0 m ²	247500 m ²
Maximum Depth	0 m	15 m
Average Depth	0 m	3 m

	Soil already Removed	Fill already Placed
Volume	0 m ³	830000 m ³
Area	0 m ²	125000 m ²
Maximum Depth	0 m	15 m
Average Depth	0 m	3 m

Describe the type, origin and quality of fill proposed to be placed.	Non-prohibited wood/soil waste from Tolko's sawmill and log yard complexes located in Williams Lake, BC (legal address: District Lot 71, Cariboo District) as authorized by the original permit.
Describe the type of soil proposed to be removed.	There has been no gravel extraction at the site since 2016 and there are no immediate plans for gravel extraction.
What alternative measures have you considered or attempted before proposing to place fill?	Separating pure bark for cogeneration plant in Williams Lake, BC. Separating out woody debris to convert to chips in the Lakeview facility for sale to an external pulp customer.
What steps will be taken to reduce impacts to surrounding agricultural land?	Regular monitoring and reporting. Please see attached LV Landfill Development Operation and Closure Plan 2013.
Proposal Map / Site Plan	LV Landfill Development, Operation and Closure Plan 2013.pdf
Cross Sections	LV Landfill Development, Operation and Closure Plan 2013.pdf
Reclamation Plan	LV Landfill Development, Operation and Closure Plan 2013.pdf

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Is your proposal for aggregate No extraction or placer mining?

7. Optional Documents

Type Professional Report **Description** 2023 Annual Report **File Name** 2023 AnnRpt.pdf









LICENCE OF OCCUPATION

Licence No.:

File No.: 5402485 Disposition No.: 926140

THIS AGREEMENT is dated for reference July 2, 2017 and is made under the Land Act.

BETWEEN:

HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH

COLUMBIA, represented by the minister responsible for the *Land Act*, Parliament Buildings, Victoria, British Columbia

(the "Province")

AND:

TOLKO INDUSTRIES LTD.

(Incorporation No. A0066883) 180 Hodgson Rd Williams Lake, BC V2G 3P6

(the "Licensee")

The parties agree as follows:

ARTICLE 1 - INTERPRETATION

1.1 In this Agreement,

"Agreement" means this licence of occupation;

"Commencement Date" means July 2, 2017;

"disposition" has the meaning given to it in the Land Act and includes a licence of occupation;

"Fees" means the fees set out in Article 3;

"Hazardous Substances" means any substance which is hazardous to persons, property or the environment, including without limitation

(a) waste, as that term is defined in the *Environmental Management Act*; and

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- (b) any other hazardous, toxic or other dangerous substance, the use, transportation or release into the environment of which, is now or from time to time prohibited, controlled or regulated under any laws or by any governmental authority, applicable to, or having jurisdiction in relation to, the Land;
- "Improvements" includes anything made, constructed, erected, built, altered, repaired or added to, in, on or under the Land, and attached to it or intended to become a part of it, and also includes any clearing, excavating, digging, drilling, tunnelling, filling, grading or ditching of, in, on or under the Land;
- "Land" means that part or those parts of the Crown land either described in, or shown outlined by bold line on, the schedule attached to this Agreement entitled "Legal Description Schedule" except for those parts of the land that, on the Commencement Date, consist of highways (as defined in the *Transportation Act*) and land covered by water;
- "Management Plan" means the most recent management plan prepared by you in a form approved by us, signed and dated by the parties, and held on file by us;
- **"Realty Taxes"** means all taxes, rates, levies, duties, charges and assessments levied or charged, at any time, by any government authority having jurisdiction which relate to the Land, the Improvements or both of them and which you are liable to pay under applicable laws;
- "Security" means the security referred to in section 6.1 or 6.2, as replaced or supplemented in accordance with section 6.5;

"Term" means the period of time set out in section 2.2;

"we", "us" or "our" refers to the Province alone and never refers to the combination of the Province and the Licensee: that combination is referred to as "the parties"; and

"you" or "your" refers to the Licensee.

- 1.2 In this Agreement, "person" includes a corporation, partnership or party, and the personal or other legal representatives of a person to whom the context can apply according to law and wherever the singular or masculine form is used in this Agreement it will be construed as the plural or feminine or neuter form, as the case may be, and vice versa where the context or parties require.
- 1.3 The captions and headings contained in this Agreement are for convenience only and do not define or in any way limit the scope or intent of this Agreement.
- 1.4 This Agreement will be interpreted according to the laws of the Province of British Columbia.

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- 1.5 Where there is a reference to an enactment of the Province of British Columbia or of Canada in this Agreement, that reference will include a reference to every amendment to it, every regulation made under it and any subsequent enactment of like effect and, unless otherwise indicated, all enactments referred to in this Agreement are enactments of the Province of British Columbia.
- 1.6 If any section of this Agreement, or any part of a section, is found to be illegal or unenforceable, that section or part of a section, as the case may be, will be considered separate and severable and the remainder of this Agreement will not be affected and this Agreement will be enforceable to the fullest extent permitted by law.
- 1.7 Each schedule to this Agreement is an integral part of this Agreement as if set out at length in the body of this Agreement.
- 1.8 This Agreement constitutes the entire agreement between the parties and no understanding or agreement, oral or otherwise, exists between the parties with respect to the subject matter of this Agreement except as expressly set out in this Agreement and this Agreement may not be modified except by subsequent agreement in writing between the parties.
- 1.9 Each party will, upon the request of the other, do or cause to be done all lawful acts necessary for the performance of the provisions of this Agreement.
- 1.10 Any liabilities or obligations of either party arising, or to be performed, before or as a result of the termination of this Agreement, and which have not been satisfied or remain unperformed at the termination of this Agreement, any indemnity and any release in our favour and any other provision which specifically states that it will survive the termination of this Agreement, shall survive and not be affected by the expiration of the Term or the termination of this Agreement.
- 1.11 Time is of the essence of this Agreement.
- 1.12 Wherever this Agreement provides that an action may be taken, a consent or approval must be obtained or a determination must be made, then you or we, as the case may be, will act reasonably in taking such action, deciding whether to provide such consent or approval or making such determination; but where this Agreement states that you or we have sole discretion to take an action, provide a consent or approval or make a determination, there will be no requirement to show reasonableness or to act reasonably in taking that action, providing that consent or approval or making that determination.
- 1.13 Any requirement under this Agreement for us to act reasonably shall not require us to act in a manner that is contrary to or inconsistent with any legislation, regulations, Treasury Board directives or other enactments or any policy, directive, executive direction or other such guideline of general application.

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1.14 Wherever this Agreement provides that you may not undertake some activity or do something without our prior written approval or consent, our prior approval of the Management Plan will constitute our approval of, or consent to, the activity or thing to the extent the same is specifically and expressly described in the Management Plan and subject always to any conditions or qualifications that may be set in the Management Plan.

ARTICLE 2 - GRANT AND TERM

- 2.1 On the terms and conditions set out in this Agreement, we grant you a licence of occupation of the Land for sanitary landfill purposes, as set out in the Management Plan. You acknowledge this licence of occupation does not grant you exclusive use and occupancy of the Land.
- 2.2 The term of this Agreement commences on the Commencement Date and terminates on the 10th anniversary of that date, or such earlier date provided for in this Agreement. We reserve the right to terminate this Agreement in certain circumstances as expressly provided in this Agreement.

ARTICLE 3 - FEES

- 3.1 You will pay to us Fees of \$3,787.50, payable in advance on the Commencement Date and on each anniversary of the Commencement Date.
- 3.2 You acknowledge that we may, on written notice to you and in our sole discretion, change the Fees payable by you under this Agreement.

ARTICLE 4 - COVENANTS

- 4.1 You must
 - (a) pay, when due,
 - (i) the Fees to us at the address set out in Article 10,
 - (ii) the Realty Taxes, and
 - (iii) all charges for electricity, gas, water and other utilities supplied to the Land for use by you or on your behalf or with your permission;
 - (b) deliver to us, immediately upon demand, receipts or other evidence of the payment of Realty Taxes and all other money required to be paid by you under this Agreement;

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- (c) observe, abide by and comply with
 - all applicable laws, bylaws, orders, directions, ordinances and regulations of any government authority having jurisdiction in any way affecting your use or occupation of the Land or the Improvements including without limitation all laws, bylaws, orders, directions, ordinances and regulations relating in any way to Hazardous Substances, the environment and human health and safety, and
 - (ii) the provisions of this Agreement;
- (d) in respect of the use of the Land by you or by any person who enters upon or uses the Land as a result of your use of the Land under this Agreement, keep the Land and the Improvements in a safe, clean and sanitary condition satisfactory to us, and at our written request, rectify any failure to comply with such a covenant by making the Land and the Improvements safe, clean and sanitary;
- (e) not commit any wilful or voluntary waste, spoil or destruction on the Land or do anything on the Land that may be or become a nuisance to an owner or occupier of land in the vicinity of the Land;
- (f) use and occupy the Land only in accordance with and for the purposes set out in the Management Plan;
- (g) not construct, place or affix any Improvement on or to the Land except as permitted in the Management Plan;
- (h) pay all accounts and expenses as they become due for work performed on or materials supplied to the Land at your request, on your behalf or with your permission, except for money that you are required to hold back under the *Builders Lien Act*;
- (i) if any claim of lien over the Land is made under the *Builders Lien Act* for work performed on or materials supplied to the Land at your request, on your behalf or with your permission, immediately take all steps necessary to have the lien discharged, unless the claim of lien is being contested in good faith by you and you have taken the steps necessary to ensure that the claim of lien will not subject the Land or any interest of yours under this Agreement to sale or forfeiture;
- (j) not cut or remove timber on or from the Land without being granted the right under the *Forest Act* to harvest Crown timber on the Land;
- (k) if any soil is disturbed by you as a result of your construction or maintenance of the Improvements, at your expense, restore the surface of the Land to a condition satisfactory to us;

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- (1) initiate an Archaeological Investigation process with an Archaeologist on site, prior to any future ground disturbance;
- (m) comply with the provisions of your Waste Management Permit, issued by the Ministry of Environment;
- (n) maintain the integrity of survey evidence on the Land, namely any survey monuments, bars or pins situate on the Land, including 'control points' established under a quantity survey for a quarry tenure, and at our written request and your expense, arrange for and complete all resurveys and repostings of the Land required as a result of your failure to comply with this covenant;
- (o) take all reasonable precautions to avoid disturbing or damaging any archaeological material found on or under the Land and, upon discovering any archaeological material on or under the Land, you must immediately notify the ministry responsible for administering the *Heritage Conservation Act*;
- (p) permit us, or our authorized representatives, to enter on the Land at any time to inspect the Land and the Improvements, including without limitation to test and remove soil, groundwater and other materials and substances, where the inspection may be necessary or advisable for us to determine whether or not you have complied with your obligations under this Agreement with respect to Hazardous Substances, provided that we take reasonable steps to minimize any disruption of your operations;
- (q) indemnify and save us and our servants, employees and agents harmless against all claims, actions, causes of action, losses, damages, costs and liabilities, including fees of solicitors and other professional advisors, arising out of one or more of the following:
 - (i) any breach, violation or non-performance of a provision of this Agreement,
 - (ii) any conflict between your use of the Land under this Agreement and the lawful use of the Land by any other person, and
 - (iii) any personal injury, bodily injury (including death) or property damage occurring or happening on or off the Land by virtue of your entry upon, use or occupation of the Land,

and the amount of all such losses, damages, costs and liabilities will be payable to us immediately upon demand; and

- (r) on the termination of this Agreement,
 - (i) peaceably quit and deliver to us possession of the Land and, subject to

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paragraphs (ii), (iii) and (iv), the Improvements in a safe, clean and sanitary condition,

- (ii) within 60 days, remove from the Land any Improvement you want to remove, if the Improvement was placed on or made to the Land by you, is in the nature of a tenant's fixture normally removable by tenants and is not part of a building (other than as a tenant's fixture) or part of the Land and you are not in default of this Agreement,
- (iii) not remove any Improvement from the Land if you are in default of this Agreement, unless we direct or permit you to do so under paragraph (iv),
- (iv) remove from the Land any Improvement that we, in writing, direct or permit you to remove, other than any Improvement permitted to be placed on or made to the Land under another disposition, and
- (v) restore the surface of the Land as nearly as may reasonably be possible, to the condition that the Land was in at the time it originally began to be used for the purposes described in this Agreement, but if you are not directed or permitted to remove an Improvement under paragraph (iii), this paragraph will not apply to that part of the surface of the Land on which that Improvement is located,

and all of your right, interest and estate in the Land will be absolutely forfeited to us, and to the extent necessary, this covenant will survive the termination of this Agreement.

- 4.2 You will not permit any person who enters upon or uses the Land as a result of your use of the Land under this Agreement to do anything you are restricted from doing under this Article.
- 4.3 You must not use all or any part of the Land
 - (a) for the storage or disposal of any Hazardous Substances; or
 - (b) in any other manner whatsoever which causes or contributes to any Hazardous Substances being added or released on, to or under the Land or into the environment from the Land;

unless

(c) such storage, disposal, release or other use does not result in your breach of any other provision of this Agreement, including without limitation, your obligation to comply with all laws relating in any way to Hazardous Substances, the environment and human health and safety; and

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- (d) we have given our prior written approval to such storage, disposal, release or other use and for certainty any such consent operates only as a consent for the purposes of this section and does not bind, limit, or otherwise affect any other governmental authority from whom any consent, permit or approval may be required.
- 4.4 Despite any other provision of this Agreement you must:
 - (a) on the expiry or earlier termination of this Agreement; and
 - (b) at any time if we request and if you are in breach of your obligations under this Agreement relating to Hazardous Substances;

promptly remove from the Land all Hazardous Substances stored, or disposed of, on the Land, or which have otherwise been added or released on, to or under the Land:

- (c) by you; or
- (d) as a result of the use of the Land under this Agreement; or
- (e) as a result of the use of the Land under the following prior agreements: Licence of Occupation dated July 2, 2007, DID No. 858544 and dated July 2, 1997, DID No. 238729

save and except only to the extent that we have given a prior written approval expressly allowing specified Hazardous Substances to remain on the Land following the expiry of the Term.

- 4.5 We may from time to time
 - (a) in the event of the expiry or earlier termination of this Agreement;
 - (b) as a condition of our consideration of any request for consent to an assignment of this Agreement; or
 - (c) if we have a reasonable basis for believing that you are in breach of your obligations under this Agreement relating to Hazardous Substances;

provide you with a written request to investigate the environmental condition of the Land and upon any such request you must promptly obtain, at your cost, and provide us with, a report from a qualified and independent professional who has been approved by us, as to the environmental condition of the Land, the scope of which must be satisfactory to us and which may include all such tests and investigations that such professional may consider to be necessary or advisable to determine whether or not you have complied with your obligations under this Agreement with respect to Hazardous Substances.

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4.6 You must at our request from time to time, but not more frequently than annually, provide us with your certificate (and if you are a corporation such certificate must be given by a senior officer) certifying that you are in compliance with all of your obligations under this Agreement pertaining to Hazardous Substances, and that no adverse environmental occurrences have taken place on the Land, other than as disclosed in writing to us.

ARTICLE 5 - LIMITATIONS

5.1 You agree with us that

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- (a) in addition to the other reservations and exceptions expressly provided in this Agreement this Agreement is subject to the exceptions and reservations of interests, rights, privileges and titles referred to in section 50 of the *Land Act*;
- (b) other persons may hold or acquire rights to use the Land in accordance with enactments other than the Land Act or the Ministry of Lands, Parks and Housing Act, including rights held or acquired under the Coal Act, Forest Act, Geothermal Resources Act, Mineral Tenure Act, Petroleum and Natural Gas Act, Range Act, Water Sustainability Act or Wildlife Act (or any prior or subsequent enactment of the Province of British Columbia of like effect); such rights may exist as of the Commencement Date and may be granted or acquired subsequent to the Commencement Date and may affect your use of the Land;
- (c) other persons may hold or acquire interests in or over the Land granted under the Land Act or the Ministry of Lands, Parks and Housing Act; such interests may exist as of the Commencement Date; following the Commencement Date we may grant such interests (including fee simple interests, leases, statutory rights of way and licences); you acknowledge that your use of the Land may be affected by such interests and the area or boundaries of the Land may change as a result of the granting of such interests;
- (d) you have no right to compensation from us and you release us from all claims, actions, causes of action, suits, debts and demands that you now have or may at any time in the future have against us arising out of any conflict between your use of the Land under this Agreement and any use of, or impact on the Land arising from the exercise, or operation of the interests, rights, privileges and titles described in subsections (a), (b), and (c);
- (e) this Agreement does not limit any right to notice, compensation or any other benefit that you may be entitled to from time to time under the enactments described in subsection (b), or any other applicable enactment;
- (f) you will not commence or maintain proceedings under section 65 of the Land Act in

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respect of any interference with your use of the Land as permitted under this Agreement that arises as a result of the lawful exercise or operation of the interests, rights, privileges and titles described in subsections (a), (b) and (c);

- (g) you will not remove or permit the removal of any Improvement from the Land except as expressly permitted or required under this Agreement;
- (h) any interest you may have in the Improvements ceases to exist and becomes our property upon the termination of this Agreement, except where an Improvement may be removed under paragraph 4.1(r)(ii), (iii) or (iv) in which case any interest you may have in that Improvement ceases to exist and becomes our property if the Improvement is not removed from the Land within the time period set out in paragraph 4.1(r)(ii) or the time period provided for in the direction or permission given under paragraph 4.1(r)(iii); and
- (i) if, after the termination of this Agreement, we permit you to remain in possession of the Land and we accept money from you in respect of such possession, a tenancy from year to year will not be created by implication of law and you will be deemed to be a monthly occupier only subject to all of the provisions of this Agreement, except as to duration, in the absence of a written agreement to the contrary.

ARTICLE 6 - SECURITY AND INSURANCE

- 6.1 On the Commencement Date, you will deliver to us Security in the amount of \$50,000.00 which will
 - (a) guarantee the performance of your obligations under this Agreement;
 - (b) be in the form required by us; and
 - (c) remain in effect until we certify, in writing, that you have fully performed your obligations under this Agreement.
- 6.2 Despite section 6.1, your obligations under that section are suspended for so long as you maintain in good standing other security acceptable to us to guarantee the performance of your obligations under this Agreement and all other dispositions held by you.
- 6.3 We may use the Security for the payment of any costs and expenses associated with any of your obligations under this Agreement that are not performed by you or to pay any overdue Fees and, if such event occurs, you will, within 30 days of that event, deliver further Security to us in an amount equal to the amount drawn down by us.
- 6.4 After we certify, in writing, that you have fully performed your obligations under this Agreement, we will return to you the Security maintained under section 6.1, less all amounts

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drawn down by us under section 6.3.

- 6.5 You acknowledge that we may, from time to time, notify you to
 - (a) change the form or amount of the Security; and
 - (b) provide and maintain another form of Security in replacement of or in addition to the Security posted by you under this Agreement;

and you will, within 60 days of receiving such notice, deliver to us written confirmation that the change has been made or the replacement or additional form of Security has been provided by you.

- 6.6 You must
 - (a) without limiting your obligations or liabilities under this Agreement, at your expense, purchase and maintain during the Term the following insurance with insurers licensed to do business in Canada:
 - (i) Commercial General Liability insurance in an amount of not less than \$2,000,000.00 inclusive per occurrence insuring against liability for personal injury, bodily injury (including death) and property damage, including coverage for all accidents or occurrences on the Land or the Improvements. Such policy will include cross liability, liability assumed under contract, provision to provide 30 days advance notice to us of material change or cancellation, and include us as additional insured;
 - (b) ensure that all insurance required to be maintained by you under this Agreement is primary and does not require the sharing of any loss by any of our insurers;
 - (c) within 10 working days of Commencement Date of this Agreement, provide to us evidence of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";
 - (d) if the required insurance policy or policies expire or are cancelled before the end of the Term of this Agreement, provide within 10 working days of the cancellation or expiration, evidence of new or renewal policy or policies of all required insurance in the form of a completed "Province of British Columbia Certificate of Insurance";
 - (e) notwithstanding subsection (c) or (d) above, if requested by us, provide to us certified copies of the required insurance policies.
- 6.7 We may, acting reasonably, from time to time, require you to

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- (a) change the amount of insurance set out in subsection 6.6(a); and
- (b) provide and maintain another type or types of insurance in replacement of or in addition to the insurance previously required to be maintained by you under this Agreement;

and you will, within 60 days of receiving such notice, cause the amounts and types to be changed and deliver to us a completed "Province of British Columbia Certificate of Insurance" for all insurance then required to be maintained by you under this Agreement.

- 6.8 You shall provide, maintain, and pay for any additional insurance which you are required by law to carry, or which you consider necessary to insure risks not otherwise covered by the insurance specified in this Agreement in your sole discretion.
- 6.9 You waive all rights of recourse against us with regard to damage to your own property.

ARTICLE 7 - ASSIGNMENT

- 7.1 You must not sublicense, assign, mortgage or transfer this Agreement, or permit any person to use or occupy the Land, without our prior written consent, which consent we may withhold.
- 7.2 Prior to considering a request for our consent under section 7.1, we may require you to meet certain conditions, including without limitation, that you provide us with a report as to the environmental condition of the Land as provided in section 4.5.

ARTICLE 8 - TERMINATION

- 8.1 You agree with us that
 - (a) if you
 - (i) default in the payment of any money payable by you under this Agreement, or
 - (ii) fail to observe, abide by and comply with the provisions of this Agreement (other than the payment of any money payable by you under this Agreement),

and your default or failure continues for 60 days after we give written notice of the default or failure to you,

(b) if, in our opinion, you fail to make diligent use of the Land for the purposes set out in this Agreement, and your failure continues for 60 days after we give written notice of the failure to you;

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- (c) if you
 - (i) become insolvent or make an assignment for the general benefit of your creditors,
 - (ii) commit an act which entitles a person to take action under the *Bankruptcy and Insolvency Act* (Canada) or a bankruptcy petition is filed or presented against you or you consent to the filing of the petition or a decree is entered by a court of competent jurisdiction adjudging you bankrupt under any law relating to bankruptcy or insolvency, or
 - (iii) voluntarily enter into an arrangement with your creditors;
- (d) if you are a corporation,
 - (i) a receiver or receiver-manager is appointed to administer or carry on your business, or
 - (ii) an order is made, a resolution passed or a petition filed for your liquidation or winding up;
- (e) if you are a society, you convert into a company in accordance with the *Society Act* without our prior written consent;
- (f) if this Agreement is taken in execution or attachment by any person; or
- (g) if we require the Land for our own use or, in our opinion, it is in the public interest to cancel this Agreement and we have given you 60 days' written notice of such requirement or opinion;

this Agreement will, at our option and with or without entry, terminate and your right to use and occupy the Land will cease.

- 8.2 If the condition complained of (other than the payment of any money payable by you under this Agreement) reasonably requires more time to cure than 60 days, you will be deemed to have complied with the remedying of it if you commence remedying or curing the condition within 60 days and diligently complete the same.
- 8.3 You agree with us that
 - (a) you will make no claim against us for compensation, in damages or otherwise, upon the lawful termination of this Agreement under section 8.1; and
 - (b) our remedies under this Article are in addition to those available to us under the Land

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ARTICLE 9 - DISPUTE RESOLUTION

- 9.1 If any dispute arises under this Agreement, the parties will make all reasonable efforts to resolve the dispute within 60 days of the dispute arising (or within such other time period agreed to by the parties) and, subject to applicable laws, provide candid and timely disclosure to each other of all relevant facts, information and documents to facilitate those efforts.
- 9.2 Subject to section 9.5, if a dispute under this Agreement cannot be resolved under section 9.1, we or you may refer the dispute to arbitration conducted by a sole arbitrator appointed pursuant to the *Commercial Arbitration Act*.
- 9.3 The cost of the arbitration referred to in section 9.2 will be shared equally by the parties and the arbitration will be governed by the laws of the Province of British Columbia.
- 9.4 The arbitration will be conducted at our offices (or the offices of our authorized representative) in Williams Lake, British Columbia, and if we or our authorized representative have no office in Williams Lake, British Columbia, then our offices (or the offices of our authorized representative) that are closest to Williams Lake, British Columbia.
- 9.5 A dispute under this Agreement in respect of a matter within our sole discretion cannot, unless we agree, be referred to arbitration as set out in section 9.2.

ARTICLE 10 - NOTICE

10.1 Any notice required to be given by either party to the other will be deemed to be given if mailed by prepaid registered mail in Canada or delivered to the address of the other as follows:

to us

MINISTRY OF FORESTS, LANDS AND NATURAL RESOURCE OPERATIONS 120 - 640 Borland St Williams Lake, BC V2G 4T1;

to you

TOLKO INDUSTRIES LTD. 180 Hodgson Rd Williams Lake, BC V2G 3P6;

or at such other address as a party may, from time to time, direct in writing, and any such notice

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will be deemed to have been received if delivered, on the day of delivery, and if mailed, 7 days after the time of mailing, except in the case of mail interruption in which case actual receipt is required.

- 10.2 In order to expedite the delivery of any notice required to be given by either party to the other, a concurrent facsimile copy of any notice will, where possible, be provided to the other party but nothing in this section, and specifically the lack of delivery of a facsimile copy of any notice, will affect the deemed delivery provided in section 10.1.
- 10.3 The delivery of all money payable to us under this Agreement will be effected by hand, courier or prepaid regular mail to the address specified above, or by any other payment procedure agreed to by the parties, such deliveries to be effective on actual receipt.

ARTICLE 11 - MISCELLANEOUS

- 11.1 No provision of this Agreement will be considered to have been waived unless the waiver is in writing, and a waiver of a breach of a provision of this Agreement will not be construed as or constitute a waiver of any further or other breach of the same or any other provision of this Agreement, and a consent or approval to any act requiring consent or approval will not waive or render unnecessary the requirement to obtain consent or approval to any subsequent same or similar act.
- 11.2 No remedy conferred upon or reserved to us under this Agreement is exclusive of any other remedy in this Agreement or provided by law, but that remedy will be in addition to all other remedies in this Agreement or then existing at law, in equity or by statute.
- 11.3 The grant of a sublicence, assignment or transfer of this Agreement does not release you from your obligation to observe and perform all the provisions of this Agreement on your part to be observed and performed unless we specifically release you from such obligation in our consent to the sublicence, assignment or transfer of this Agreement.
- 11.4 This Agreement extends to, is binding upon and enures to the benefit of the parties, their heirs, executors, administrators, successors and permitted assigns.
- 11.5 If, due to a strike, lockout, labour dispute, act of God, inability to obtain labour or materials, law, ordinance, rule, regulation or order of a competent governmental authority, enemy or hostile action, civil commotion, fire or other casualty or any condition or cause beyond your reasonable control, other than normal weather conditions, you are delayed in performing any of your obligations under this Agreement, the time for the performance of that obligation will be extended by a period of time equal to the period of time of the delay so long as
 - (a) you give notice to us within 30 days of the commencement of the delay setting forth the

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nature of the delay and an estimated time frame for the performance of your obligation; and

- (b) you diligently attempt to remove the delay.
- 11.6 You acknowledge and agree with us that
 - this Agreement has been granted to you on the basis that you accept the Land on an "as is" basis;
 - (b) without limitation we have not made, and you have not relied upon, any representation or warranty from us as to
 - (i) the suitability of the Land for any particular use, including the use permitted by this Agreement;
 - (ii) the condition of the Land (including surface and groundwater), environmental or otherwise, including the presence of or absence of any toxic, hazardous, dangerous or potentially dangerous substances on or under the Land and the current and past uses of the Land and any surrounding land and whether or not the Land is susceptible to erosion or flooding;
 - (iii) the general condition and state of all utilities or other systems on or under the Land or which serve the Land;
 - (iv) the zoning of the Land and the bylaws of any government authority which relate to the development, use and occupation of the Land; and
 - (v) the application of any federal or Provincial enactment or law to the Land;
 - (c) you have been afforded a reasonable opportunity to inspect the Land or to carry out such other audits, investigations, tests and surveys as you consider necessary to investigate those matters set out in subsection (b) to your satisfaction before entering into this Agreement;
 - (d) you waive, to the extent permitted by law, the requirement if any, for us to provide you with a "site profile" under the *Environmental Management Act* or any regulations made under that act;
 - (e) we are under no obligation, express or implied, to provide financial assistance or to contribute toward the cost of servicing, creating or developing the Land or the Improvements and you are solely responsible for all costs and expenses associated with your use of the Land and the Improvements for the purposes set out in this Agreement; and

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- (f) we are under no obligation to provide access or services to the Land or to maintain or improve existing access roads.
- 11.7 You agree with us that nothing in this Agreement constitutes you as our agent, joint venturer or partner or gives you any authority or power to bind us in any way.
- 11.8 This Agreement does not override or affect any powers, privileges or immunities to which you are entitled under any enactment of the Province of British Columbia.

The parties have executed this Agreement as of the date of reference of this Agreement.

SIGNED on behalf of **HER MAJESTY THE QUEEN IN RIGHT OF THE PROVINCE OF BRITISH COLUMBIA** by the minister responsible for the *Land Act* or the minister's authorized representative

Minister responsible for the *Land Act* or the minister's authorized representative

SIGNED on behalf of **TOLKO INDUSTRIES LTD.** by a duly authorized signatory

Authorized Signatory

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TOLKO INDUSTRIES LTD.

LANDFILL DEVELOPMENT PLAN

LAKEVIEW LUMBER DIVISION

(INCLUDING DESIGN, OPERATING AND CLOSURE PLANNING)

Prepared for:

Tolko Industries Ltd.

Prepared by:

TerraWest Environmental Inc.



TerraWest File: TFWL12-01

March 12, 2013

TERRAWEST ENVIRONMENTAL INC. PO Box 58, Cowichan Bay, BC, VOR 1N0 Tel. 1.866.500.1553 Fax 250.389.1554 Email info@TerraWest.ca



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EXECUTIVE SUMMARY

Tolko Industries Ltd. (Tolko) has retained TerraWest Environmental Inc. (TerraWest) to construct a Development Plan for the Tolko Wood Residue Landfill currently operating under Permit PR-7206 (the 'Permit'). Although the Landfill currently operates under the Permit, the Permit has been recently amended by the Ministry of Environment to reflect current conditions under which the Landfill is to comply, as detailed in that Draft Permit submitted to Tolko in the summer of 2011. The Draft Permit stated that Tolko retain a Qualified Professional to submit a Development Plan. This document herein referred to as the Development Plan details design, operating plans and closure/post-closure plans.



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Figure 1. Topographic Survey Site Plan

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- APPENDIX A. Landfill Permit PR-07206 & MoE Draft Permit 7206
- APPENDIX B. Site Photographs
- APPENDIX C. Domestic Well Search



1.0 INTRODUCTION

Tolko Industries Ltd.(Tolko) has retained TerraWest Environmental Inc. (TerraWest) to develop a Development Plan for the Tolko Wood Residue Landfill (the 'Landfill' or 'Site') currently operating under Permit PR-7206 (the 'Permit'). Although the Landfill currently operates under the Permit, the Permit has been recently amended by the Ministry of Environment (MoE) to reflect current conditions under which the Landfill is to comply, as detailed in that Draft Permit submitted to Tolko in the summer of 2011. The Draft Permit stated that Tolko retain a Qualified Professional to submit a Development Plan.

For further reference please refer to the Draft Permit in Appendix A.

The active filling is currently occurring in the northern portion of the Site while the remaining areas to the south contain the former landfilling areas in addition to gravel and aggregate extraction pits.

1.1 SITE LOCATION

The Site is located approximately 4.0 km west of Williams Lake and 4.0 km east of the Fraser River. The Site is geographically centered on latitude 52° 07' 31" N and longitude 122° 13' 30" W. The legal address of the site as described on the Landfill permit is as follows:

• District Lot 6995, Cariboo District (approx. 33.65 ha) - PR-7206.

The Site with approximate dimensional boundaries and features are depicted in Figure 1.

1.2 BACKGROUND

The Landfill was established as early as 1985 on the lot described above which also hosts three (3) gravel extraction pits, two (2) active and one (1) inactive. The Landfill accepts wood residue waste from Tolko's sawmill and log yard complex located in Williams Lake, British Columbia (legal address: District lot 71, Cariboo District) as authorized by the Permit. In addition, the Site currently contains a biocell for the temporary storage of contaminated soils. Please refer to Figure 1 for further detail and spatial reference.

1.3 WASTE TYPES

Tolko's predecessor companies Riverside Forest Products Limited and Lignum Limited were issued the original Permit to operate the Landfill on May 29, 1985. On July 17th, 1995, the Permit was amended with adherence to specifications which granted Tolko's predecessor companies permission to operate the Landfill with a maximum disposal capacity rate of 68,000m³ of waste per year. This included wastes described as "Wood residue with no linear dimension greater than 60cm; bark; soil; metal debris, including banding; and residue from open burning of wood".


Current allowable waste types specified by the Draft Permit (2011) include wood and wood fragments with a linear dimension not to exceed 60 cm, boiler ash and activated alumina. The maximum allowable disposal capacity rate remains the same at 68,000m³ of waste per year.

2.0 DESIGN

2.1 CURRENT LANDFILL STRUCTURE

The active landfill area is located in the northern portion of the Site and covers an area of approximately 5.4 hectares. The filled material is built up atop of the natural grade of the surrounding topography. There are two lifts of woody fill material each capped with sand and gravel. The active landfill area is constructed in somewhat of a radial design dispersing precipitation and surface waters outward towards the perimeter of the Landfill. The northern fill area was constructed with initial fill deposition beginning along northern property boundary of the Site and working its way towards the south. Please refer to Figure 1 for further details. The Landfill is composed of primarily woody debris waste capped with sand and gravel.

Little is known about the southern fill area's structure except for its approximate boundaries and the topographic shape and elevations. Anecdotal communication with the Site foreman facilitated the approximate south fill boundaries contained on Figure 1.

Based on the above information and Figure 1, the current volume of the Landfill is estimated at 432,808 m³ of material located in the northern active fill area and an additional 270,185 m³ of material located in the former southern fill area. The approximate total is 702,993 m³ of material. The volume estimations are calculated using topographic survey data to generate a three dimensional model of the fill areas while assuming the native ground underlying the fill areas is relatively flat. Supplemental assessment of the north and south landfill areas to further assess filled material composition, depth and boundaries will be conducted via boreholes as part of implementation of the proposed Monitoring Program as detailed in Section 5.

2.2 FUTURE LANDFILL STRUCTURE

The Landfill will continue to be developed in the northern fill area towards the south.

3.0 LANDFILL IMPACT ASSESSMENT

3.1 CURRENT CONDITIONS

Field observations indicate that the natural surface of the Site is slightly graded to the north-northwest towards the treed borders. The perimeter of the Landfill is comprised of treed cover area consisting of primarily coniferous species such as Lodgepole Pine with some Spruce. The surface cover over the Landfill has vegetative regeneration underway with native grasses. The Site has a gravel surface



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access road entering the Site from the south of the Site forming a ring road situated at the toe of the Landfill.

For representation of the Landfill surficial features and observations see Figure 1 and Appendix B: Site Photos.

Please note that during the Site Inspection conducted by TerraWest moderate erosion was observed slightly down grade of the crest of the Landfill in the northwest portion.

3.2 ENVIRONMENTAL RECEPTORS

Two (2) environmental receptors exist on the Site and within the surrounding adjacent areas. These include the perennial seepage identified near the north western corner the Site and the Fraser River located approximately 4km to the west of the Site.

The perennial seepage located in the northwest corner of the Site is likely fed by surface run-off originating atop the north fill area. This seepage is thought to grow into a stream and eventually discharge into the Fraser River which is approximately 4.0 kilometers to the west of the Site. Given the distance from the Site to the Fraser River, it is unlikely that the Site presents conditions of environmental concern to that resource.

The Fraser River situated to the west of the Landfill is in the inferred potentiometric regional groundwater flow direction (based on topographic data).

4.0 OPERATING PROCEDURES

Tolko will conduct monthly monitoring inspections of the landfill to monitor for fill development, waste segregation and dust control. In the event that these factors are observed to require maintenance as per Permit criteria then Tolko will immediately initiate remedial activities to adhere to the Development Plan.

4.1 FILL DEVELOPMENT

The material placement on the landfill will occur as per the 2H:1V slope criteria. These criteria will be monitored during the monthly inspections. All refuse will be confined to the smallest practical area and reduced to the smallest practical volume at the operating face of the landfill. Refuse must be deposited in horizontal lifts. Each lift will be compacted and covered as soon as completed. The maximum depth of the compacted refuse must not exceed 3 metres, prior to the application of a minimum of 0.3 m of intermediate cover material.

4.2 FINAL COVER

Final cover will be applied to all completed areas of the landfill. This cover shall be sloped to prevent



standing surface water in addition to erosion by runoff. When final cover is complete, it will be planted with appropriate vegetation, under the direction of a qualified professional (i.e. Forest Professional).

4.3 WASTE TYPE MANAGEMENT

Waste segregation will occur at the source site (i.e. the Sawmill). Wood residue and wastes defined in the criteria outlined in the Permit and section 1.3 of the Development Plan (i.e. Wood & Wood Fragments less than 60 cm, boiler ash and activated alumina) will be transferred into transport vehicles for drop off within the Site at the active fill slope. In the event that non-permitted materials are found in waste deposited at the Landfill it will be sorted and removed and placed in a segregated area of the Site designated for immediate off-site transfer or further processing within the temporary stockpile area. No wastes shall be landfilled which is not specified in the Permit and include, but are not limited to, wood residue contaminated with wood preserving chemicals or antisapstain chemicals, demolition debris, tires, metals, putrescible wastes or hazardous wastes as defined by the *Hazardous Waste Regulation*. Woody debris greater than 60 cm in linear dimension mixed with incoming waste will be segregated and then reprocessed to meet size requirements at the temporary storage area or taken off site. Metals must be excluded from the Landfill and will be set aside for storage, recycling, and off site disposal.

4.4 FUGITIVE PARTICLE EMISSIONS

Tolko will take all reasonable measures to control fugitive particulate emissions generated from the landfill operation. However, based on operations at the Site there is low likelihood of fugitive emissions being generated.

4.5 MAINTENANCE AND INSPECTION

The Landfill is monitored monthly by Tolko personnel and involves implementation of the Development Plan.

4.6 DUST CONTROL

Active faces and access roads shall be wetted down via water truck during the dry season to control dust if needed, based on site conditions as observed by the operator.

4.7 SITE ACCESS

The Site is accessed from the southeast corner of the property boundary which runs north beyond the gravel pit towards the landfill and utilizes many various loop roads to facilitate material drop off. Provision of fencing, site access control, vehicle safety barriers, firebreaks as required, shall be carried out to the satisfaction of the Director.



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4.8 SURFACE WATER DIVERSIONS AND DRAINAGE CONTROLS

Surface drainage will be diverted away from the landfill and completed sections of the Landfill must be properly graded to allow drainage from the landfill and prevent standing surface water on the Landfill. Should the offsite migration of leachate or surface drainage become a concern, Tolko will take diversionary measures to reduce the impact on the environment.

4.9 CLIMATE

Precipitation records from Environment Canada's Climate Normal's database¹ include data collected for the Williams Lake Airport from 1971 to 2000. This data indicates an average annual precipitation total for the area of approximately 450.3 mm.

4.10 GEOLOGY

Surficial geology of the Site area has been generally mapped as Sandstone, conglomerate, argillite, coal; mafic to intermediate volcanics, minor black chert. as indicated on Geosciences Map 2005-3: Geology of British Columbia, provided by the British Columbia Geological Survey².

4.11 TOPOGRAPHIC SURVEY

The topograhic survey was conducted by Meridian Mapping and was accomplished by the use of a Trimble R8 RTK (Real Time Kinematic) survey using a control point established via the Canadian Spatial Reference System (CSRS) Precise Point Positioning (PPP) service with tie in legal survey benchmark corner pin. Control point coordinates were averaged between the PPP solution given for two days base collection or approximately 12 hours. Elevations are based on the Canada HT2.0 vertical datum.

The topo data was collected with a Trimble R8 receiver (rover) and a Trimble R8 RTK base station and radio link. Standard preparation of a truly accurate volume assessment is done with a topographic survey of the terrain prior to deposition of materials and then after deposition with comparison of volume differences between known surfaces. In this case the surface before deposition was unknown and therefore the calculation for volumes below were created assuming a flat surface below the Landfill.

The resultant Map was created using ESRI ArcMap software which converted the data points to geospatially corrected polygons consisting of contour lines. Volume estimates for the North and South piles are also included on the map, and are within +/-10-20% deviation. Without an intrusive investigation to establish the true bottom of the piles and subsequent true surface gradient,

¹ Environment Canada, Canadian Climate Normals 1971-2000; http://www.climate.meteo.ec.gc.ca/climate_normals

² BC Geological Survey, http://www.empr.gov.bc.ca/Mining/Geoscience/PublicationsCatalogue/Maps/GeoscienceMaps/Pages/2005-3.aspx



assumptions have been made regarding the actual surface gradient and also fill volumes. The volume estimates for the North and South piles are 432,808 m³ and 270,185m³, respectively.

4.12 HYDROLOGY/HYDROGEOLOGY

A water well search was conducted using the MoE's *BC Water Resource Atlas* within a 0.5 km radius of the Site. No water wells were reported present within this radius. Due to the observed stratigraphy in the area, surface water is assumed to flow to ground via infiltration with slight preferential down-gradient movement to the west; towards the Fraser River.

Surface water on-site drains directly to the treed boundaries to the west and southwest, or through the gravel surface to ground, while upgradient surface waters drain into diversion ditches to the north and into the densely treed boundary.

Assessing the hydrogeologic context of the Landfill will form the basis of the Landfill Monitoring Program (Monitoring Program) and will be covered in a Development Plan amendment following the intrusive investigation works conducted during monitoring well installation and sampling works. See Section 5.0. for further details of the proposed Monitoring Program.

4.13 GAS & EMISSIONS CONTROL

Fumaroles were not observed during Site visits. It is not expected that significant methane or CO₂ gas production will occur at the Site. However, observations of the Landfill will be performed during future monitoring events to address fumarole concerns as they arise. Furthermore, in accordance with the requirements of the MoE Landfill Gas Management Regulation, and based on known information of the Landfill, it is anticipated that the threshold limits of 100,000 tonnes of waste volume will be generated at the Landfill. Therefore, a Landfill Gas Generation Assessment shall be conducted during the annual reporting phase.

4.14 RODENT & NUISANCE WILDLIFE CONTROL

Vector controls are not anticipated to be an issue due to the materials stored in the Landfill. Materials such as ash, unburned wastes and sand and gravel layers do not produce attractants for animals. There has been no observed evidence of Landfill disruption by animals during Site visits with the exception of cattle migration onto the Site from the surrounding range lands. These cattle are not considered to be a hazard to the landfill, and given the apparent benign nature of the fill material the landfill is considered to pose low concern of health to the livestock.

4.15 SIGNAGE – PUBLIC NOTIFICATIONS

Public signage notification will be installed at the Site to clearly indicate the use of the Site as a landfill, with clear demarcation of waste streams. Signs will be posted prohibiting the disposal of any hazardous materials not accepted at the landfill. Access to the Landfill is via a locked gate.



4.16 **EROSION AND SETTLEMENT**

Moderate erosion and settlement has occurred along the north east portion of the landfill; however, considering the generally gentle grades throughout the rest of the Site, no foreseeable concerns are anticipated in terms of erosion and settlement at the Landfill; however, during the Monitoring Program the Landfill will be monitored for signs of erosion and settlement.

4.17 LEACHATE MANAGEMENT

Potential contaminants of concern and characteristics of wood waste leachate generation can typically be described by the following parameters: total metals, phenols, pH, dissolved oxygen, biological oxygen demand, nitrate, nitrite, and tannins & lignins.

Leachate management should be considered if impacts on groundwater and surface water are identified based on the Monitoring Program findings. Leachate management measures may include leachate collection and recirculation, diversionary measures and slope modification works.

5.0 WATER QUALITY MONITORING PROGRAM

As part of the ongoing management of the Landfill, a groundwater and surface water Monitoring Program will be conducted bi-annually on the Site starting in winter of 2013. This will involve the installation of at least five (5) groundwater monitoring wells strategically placed around the Landfill to cover the entire catchment area and determine the soil and groundwater conditions of the Site. In addition, surface water sample locations will be established at the upgradient and downgradient points of the drainage ditch and adjacent surface water bodies (if water is available). Initial borehole soils and subsequent groundwater and surface water samples will be analyzed for parameters of concern as detailed below.

5.1 **REGULATORY ASSESSMENT STANDARDS & GUIDELINES**

5.1.1 GROUNDWATER & SURFACE WATER

As described above in section 3.2, a seepage located in the northwest corner of the Site is likely fed by surface run-off originating atop the north fill area. This seepage appears to be tributary to a stream and eventually discharges into the Fraser River which is approximately 4.0 kilometers to the west of the Site. As per MoE Technical Guidance 6, *Water Use Determination*, sensitive aquatic receptors should be considered if within 500m of the Site. Considering the location and distance to the nearest aquatic receptors (i.e. the perennial seepage), the Aquatic Life standards of the CSR (CSR-AW) are deemed applicable for assessing the environmental compliance status of groundwater and/or surface water at the Site.

With respect to potential drinking water use, a domestic water well search was conducted using the BC Water Resource Atlas, and indicated approximately zero (0) domestic water wells are within a 0.5 km



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radius of the Site. A copy of the water well search map is presented in Appendix C. However, a formal groundwater assessment has not been conducted on the Site, and therefore the drinking water standards of the CSR (CSR-DW) are applied for due diligence.

5.1.2 SOIL

Applicable CSR soil standards primarily depend upon current and historical land use practices and current municipal zoning. Given the Site's land use an industrial use landfill, Industrial Land standards of the CSR (CSR-IL) are deemed applicable for assessing the environmental compliance status of soils. The CSR-IL standards are specifically provided by the Schedule 4 – Generic Numerical Soil Standards and CSR Schedule 5 – Matrix Numerical Standards (including the lowest of applicable site-specific Environmental Protection factors of 'Toxicity to soil invertebrates and plants' and/or 'Groundwater flow to surface water used by aquatic life [Freshwater]', and Human Health Protection factors of 'Intake of contaminated soil' and/or 'Groundwater used for drinking water').

5.2 ANALYTICAL TEST PARAMETERS

The Monitoring Program will require intrusive investigations as part of the installation of the monitoring wells. Borehole soils will be submitted for analytical testing along with groundwater from the wells. Testing to be conducted on the soils, groundwater and surface water are as follows.

Borehole soils will be analyzed for Potential Contaminants of Concern (PCOCs) to include Extractable Petroleum Hydrocarbons (EPH 10-19 and EPH 19-32), BTEXs, VPH, PAHs, Chlorinated Phenols, and metals. These chemical parameters are chosen based on the potential composition of the material, and additional parameters may be added to the analytical scheme based on analytical results and site specific factors (i.e. field observations etc.).

Groundwater and/or surface water samples will be analyzed for direct and indirect leachate parameters of specific conductivity total metals, phenols, pH, dissolved oxygen, nitrate, nitrite, and tannins & lignins. Again, these chemical parameters are chosen based on the potential composition of the material, additional parameters may be added to the analytical scheme based on analytical results and site specific factors (i.e. field observations, etc).

5.3 WATER SAMPLING METHODOLOGIES - WELL PURGING & SAMPLING

Water sampling procedures will be carried out in general reference to MoE protocols outlined in the following document:

 British Columbia Field Sampling Manual – for Continuous Monitoring and the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment and Biological Samples; Ministry of Water, Land and Air Protection, January 2003.



As per the *British Columbia Field Sampling Manual*, all wells will be subjected to a purge of three well volumes to induce flow of fresh formational representative groundwater into each well. Field utility of a multi-meter device will be utilized for field measurements of physical and chemical water parameters of pH, Total Dissolved Solids (TDS), salinity, temperature, Dissolved Oxygen (DO) and Electro-Conductivity (EC). These parameters will be monitored prior to sampling to ensure stabilization of the groundwater column within each observation well in order to gain representative water samples. Surface water samples will be collected via direct bottle submersion and multi-meter measurements will also be recorded.

5.4 **REPORTING**

Analytical results of the initial soil borehole tests will be summarized and compared to the CSR Schedule 4 and 5 of the CSR. Groundwater and surface water (if available) analytical results will be summarized following each sample event with a trend analysis and comparison to the relevant Schedule 6 standards of the CSR. Results will be compiled and summarized in an annual report with field observations of the Landfill described and overall trend analysis of the data and recommendation, if any, submitted to the Client and MoE for review no later than January 31st of the following year. The first report shall be submitted by January 31, 2014 (detailing initial monitoring data from Fall 2013).

5.5 **PROPOSED END USE OF SITE**

The current and future proposed end land use of the Site is to be reforested with native tree species and function as a tree farm or plantation.

5.6 SURFICIAL RECLAMATION

After final cover is applied, compacted, and sloped to prevent standing surface water in addition to erosion by runoff, the surface will be planted with appropriate native vegetation, under the direction of a qualified professional (i.e. Forest Professional).

6.0 ANNUAL REPORTING

An annual report will be prepared by a qualified professional and submitted to the Director. The report will include, but will not be limited to, the following items:

- volume (quantity) of refuse discharged in the reporting period;
- volume (quantity) of each major refuse component discharged;
- portions of the landfill that are closed and remaining landfill capacity;
- landfill gas generation assessment as per the MoE Landfill Gas Management Regulation (Spring 2014)



- summary of monitoring data obtained during the reporting period, and interpretation;
- any changes in the monitoring program, or landfill operation from the preceding period;
- review of the closure plan;
- An annual inspection report prepared by a qualified professional which discusses operation of the site and makes an evaluation of compliance with the development plan ;(and),.
- Annual reports are due by January 31 of the following year covering the previous twelve month period.

7.0 ANTICIPATED TOTAL VOLUME AND LIFE OF LANDFILL

The Landfill has been receiving material as early as 1985. It is assumed in the late 1980s to mid 1990s the majority of the woody debris and capping material was deposited in the southern fill area (approx. 270,185m³ fill) and from 1995 to the present woody debris and capping material has been deposited in the north fill area (approx. 432,808m³ fill) with a total combined volume between the north and south fill areas of approximately 700,000m³. Therefore over a 27 year period Tolko has deposited approximately 26,000m³ per annum, which is well within the maximum authorized discharge rate of 68,000m³ per annum. Based on the topographic survey of the Site, TerraWest assumes that there is ample area to continue filling between the north and south fill areas and projects another 400,000m³. Based on this assumption Tolko may continue depositing fill material at their current rate of 26,000m³ per annum for an additional 15 years.

8.0 LANDFILL CLOSURE & POST CLOSURE PLAN

8.1 GENERAL CONSIDERATIONS

The prominent foundational goal of any Landfill Closure Plan is to minimize the potential impacts of the Landfill on the surrounding environment and to protect the health of all species inhabiting that environment. Potential Landfill impact sources include leachate, gas production, surface erosion, sedimentation and slope failure. This Landfill Closure Plan has been developed to address the potential impacts from all these sources. The objective of this Closure Plan is to minimize all potential impacts of the Landfill and to restore the land to a productive and healthy state.

With respect to final cover and capping of the Landfill, historical practices have resulted in adequate proliferation of native grass species after seeding newly capped areas. This includes a final cover material of inert soil, constructed with slopes between 4% and 33% with appropriate run-on/run-off drainage controls and erosion controls.



After consideration of the requests and requirements from the MoE, TerraWest makes the following recommendations in regards to the closure/post-closure period for the Site:

- 1. Ongoing bi-annual (Spring & Fall) surface and groundwater water monitoring program for a period of at least 3 years for trend analysis to assess potential for leachate effects on surrounding surface water and groundwater resources. Groundwater samples are to be collected from at least five (5) monitoring wells to be installed at the Site: one (1) upgradient of the Landfill, and four (4) downgradient surrounding of the Landfill. Surface water samples will be collected where possible from at least one (1) upgradient ditch location and one (1) downgradient drainage location. Reporting and trend analysis will follow all sample events with an annual summary report submitted to Tolko and MoE no later than January 31st of the following year. If required, amendments will be made to the current sampling requirements based on an overall evaluation of historical analytical results and value exceedances of the relevant standards of *Schedule* 6 of the *CSR*. Factors that will be considered may involve an increase or decrease in measured analytical parameters, or an increase in sample points if feasible, with MoE consultation and approval in the event of a decrease in overall parameters. Recommended analyses to be performed on the samples will follow the parameters identified above in Section 5.2.
- 2. Assessing the hydrogeologic context of the Landfill will form the basis of the Landfill Monitoring Program (Monitoring Program) and will be covered in a Development Plan amendment following the intrusive investigation works conducted during monitoring well installation and sampling works. This work will include hydraulic conductivity testing on groundwater and soil and groundwater flow calculations which aid in further planning for the Site.
- 3. During installation of ground water monitoring wells, further intrusive investigation (i.e. boreholes) will be conducted to provide supplementary information regarding the depth and the volume of fill on the Site.

After 3 years a review of the monitoring data shall be completed to determine if potential Landfill leachate is influencing downgradient water quality, and based on the data, recommendations will be made to facilitate the closure of the Landfill and cancellation of the Permit.

9.0 CLOSURE & LIMITATIONS

TerraWest Environmental Inc. (TerraWest) has prepared this report for the exclusive use of the Tolko, and for review by the BC Ministry of Environment. Any other third party use of this report, or reliance placed on it, or decisions taken based on it, is the responsibility of such parties. TerraWest accepts no responsibility for any damages suffered by any third party, or any claims made by any third party as a result of decisions made or actions taken, based on this report.



Investigations described by this report were initiated on the Site, at the Tolko. TerraWest's investigations were conducted in accordance with generally accepted practices of such environmental investigations. No other warranties are made, either expressed or implied.

The findings of this report are partially based on information provided to TerraWest by other thirdparty sources. While TerraWest believes that information was provided in good faith and has attempted to verify information where possible, TerraWest does not accept any responsibility for any inaccuracies, deficiencies or omissions contained in this report, based on the use of such information.

The findings of this report are partially based on TerraWest's observations of Site conditions, limited to specific dates of inspection and/or investigation. Conditions may vary over time and between observation points. TerraWest offers no warranty, either expressed or implied, as to the presence or potential presence of any chemical substances or contamination on the Sites mentioned in this report.

A signed paper copy of this report constitutes the official and complete deliverable document of record in this matter. The complete report includes the main report text, Attachments and Appendices, as identified in the Table of Contents. Should this report be distributed by means of digital transmission, or copied in paper hardcopy form, TerraWest bears no liability for the completeness, accuracy or digital compatibility of the files provided.



Tyler Schon; AScT, R.B.Tech, RFT Environmental Consultant



Erich Bell, AScT, R.B.Tech, EP Environmental Consultant





FIGURES





APPENDIX A

LANDFILL PERMIT PR-07206 & MOE DRAFT PERMIT 7206



Environmental Protection Ste 400 - 640 Borland Street Williams Lake British Columbia, V2G 4T1 Telephone: (604) 398-4533

MINISTRY OF ENVIRONMENT, LANDS AND PARKS

PERMIT PR 07206

Under the Provisions of the Waste Management Act

Riverside Forest Products (Williams Lake) Limited

and

Lignum Limited

are authorised to discharge refuse to the ground from two sawmill/log yard complexes located in Williams Lake, British Columbia, subject to the conditions listed below. Contravention of any of these conditions is a violation of the Waste Management Act and may result in prosecution.

This permit revokes and replaces all previous versions of Permit PR 07206 issued under Part. 2 Section 8 of the Waste Management Act.

1. <u>AUTHORISED DISCHARGES</u>

- **1.1** The discharge of refuse to which this subsection is applicable is from TWO SAWMILL/LOG YARD COMPLEXES. The site reference number for this discharge is E210038.
 - 1.1.1 The maximum rate at which refuse may be discharged is 68000 m³/year.
 - 1.1.2 The characteristics of the discharge shall be:

Wood residue with no linear dimension greater than 60 cm; bark; soil; metal debris, including banding; and residue from the open burning of wood.

Date Issued: May 29, 1985 Amendment Date: (most recent) JUL 1 7 1995 Page: 1 of 5

Doug McIntosh Assistant Regional Waste Manager

PERMIT NO. : PR 07206

- 1.1.3 The works authorised are a wood residue landfill and related appurtenances, approximately located as shown on the attached Site Plan A.
- 1.1.4 The location of the facilities from which the discharge originates is a portion of District Lot 71, Cariboo Land District.
- 1.1.5 The location of the point of discharge is Unsurveyed Crown Land, located approximately 1513 metres north and 810 metres west of District Lot 12381, Cariboo District.
- 1.2 The discharge of contaminants to which this subsection is applicable is from AN OPEN BURNING OPERATION. The site reference number for this discharge is E210038.
 - 1.2.1 The maximum rate at which refuse may be charged to the open burn operation is 120 m'/year.
 - 1.2.2 The characteristics of the discharge shall be:

Typical products of combustion from the open burning of wood residue.

- 1.2.3 The works authorised are an open burning operation and related appurtenances, approximately located as shown on the attached Site Plan A.
- 1.2.4 The location of the facilities from which the discharge originates and the location of the point of discharge is the same location as set out in Subsection 1.1.

Date Issued: May 29, 1985 Amendment Date: JUL 1 7 1995 (most recent) Page: 2 of 5

Doug McIntosh Assistant Regional Waste Manager

PERMIT NO. : PR 07206

2. <u>GENERAL REQUIREMENTS</u>

2.1 Landfill Operation

The Permittee shall compact the refuse and apply cover material at least once every 60 days. The Regional Waste Manager may vary the frequency of covering when freezing conditions adversely affect normal operation or when sufficient quantities of soil material are incorporated with the waste.

2.2 Final Closure

Upon the completion of landfilling, the site shall be covered with a minimum of 60 centimetres of soil. The surface shall be contoured and graded so as to prevent erosion and/or ponding of surface water. The final cover shall be planted with grasses or other suitable vegetation to the satisfaction of the Regional Waste Manager.

2.3 Segregation of Metallic Wastes

Segregate metallic waste, such as banding, for disposal in a separate area of the site.

2.4 Operational Requirements For Regulated Open Burning

2.4.1 Area

The operation shall be restricted to an area on the site which is satisfactory to the Regional Waste Manager. If required, this area shall be fenced to restrict access to the burn area stockpile.

2.4.2 Quantity and Frequency

The maximum quantity of wastes to be treated is 120 m^3 per year, at a frequency not to exceed 6 burns per year. Each burn shall comprise one continuous period not exceeding 96 consecutive hours. If, after 96 hours, smoke is still being released from more than 5% of the debris that was initially ignited, the piled debris must be broken apart, scattered or re-piled. Portions of the piled debris still burning may be re-piled or used to ignite new piles. Open burning initiated in this manner will be considered a separate burn period and must comply with all of the foregoing.

Date Issued: May 29, 1985 Amendment Date: JUL 1 7 1985 (most recent) Page: 3 of 5

Doug McIntosh Assistant Regional Waste Manager

PERMIT NO. : PR 07206

2.4.3 Nature of Wastes

Generally, no waste shall be burned which is unacceptable to the Regional Waste Manager. Acceptable materials may include wood residue, bark, selected demolition refuse, and similar materials, but excluding nuisance causing combustibles such as rubber, plastics, tars, insulation, etc.

2.4.4 <u>Timing</u>

Burning shall take place only when an attendant is on duty and when conditions promote rapid combustion and dispersion of combustion products. Materials shall be charged to the facility in a manner to promote best combustion and restrict the uplift of lighter constituents. No burning shall take place during periods of fire hazard nor when burning is prohibited by other government agencies. Burning shall only take place if the Venting Index (VI) is forecast as 'good' for the first day of the proposed burn and 'good' or 'fair' for the second day of the burn. The VI is available from Environment Canada's VI Forecast Line at 1-900-451-5009.

2.4.5 Fire Control

Burning shall take place only when approved by Ministry of Forests who will determine whether it is safe to burn and may specify conditions under which burning may take place.

2.4.6 <u>Auxilary Air</u>

The permittee shall provide auxiliary air, or other measures, as necessary, to assist the efficiency of the open burn, to the satisfaction of the Regional Waste Manager.

2.4.7 <u>Residue of Combustion</u>

As soon as the residue of combustion has cooled to ambient temperature, it shall be incorporated into an area of the landfill, separate from the wood residue disposal area.

Date Issued: May 29, 1985 Amendment Date: JUL 1 7 1995 (most recent) Page: 4 of 5

Source Stant Segional Waste Manager

PROVINCE OF BRITISH COLUMBIA

3. MONITORING AND REPORTING REQUIREMENTS

3.1 Discharge Monitoring

The permittee shall conduct monthly visual inspections of the perimeter of the landfill site for evidence of leachate. If any such evidence is found, it shall be reported to the Regional Waste Manager, within 60 hours of it's discovery. The manager may require measures be taken to control or treat any leachate streams.

3.2 Reporting

The permittee shall submit an annual report showing: the volume of refuse discharged monthly; the portion of the site which is full, including size of the area and location; the frequency of intermediate covering; the volume of material burned, and the frequency of open burns. The report shall also include the steps taken during the year to reduce the volume of refuse being landfilled. The report shall be submitted within 30 days of the end of the calendar year.

Date Issued: May 29, 1985 Amendment Date: JUL 1 7 1995 (most recent) Page: 5 of 5 Doug McIntosh Assistant Regional Waste Manager





Tracking Number:

Authorization Number: 7206

REGISTERED MAIL

[sign]TrackingNumber

[sign]CurrentDate

Tolko Industries Ltd. Lakeview Lumber Division 180 Hodgson Road Williams Lake BC V7X 1T2

Dear Permittee:

Enclosed is Amended Permit 7206 issued under the provisions of the *Environmental Management Act*. Your attention is respectfully directed to the terms and conditions outlined in the permit. An annual fee will be determined according to the Permit Fees Regulation.

This permit does not authorize entry upon, crossing over, or use for any purpose of private or Crown lands or works, unless and except as authorized by the owner of such lands or works. The responsibility for obtaining such authority rests with the permittee. This permit is issued pursuant to the provisions of the *Environmental Management Act* to ensure compliance with Section 120(3) of that statute, which makes it an offence to discharge waste, from a prescribed industry or activity, without proper authorization. It is also the responsibility of the permittee to ensure that all activities conducted under this authorization are carried out with regard to the rights of third parties, and comply with other applicable legislation that may be in force.

This decision may be appealed to the Environmental Appeal Board in accordance with Part 8 of the *Environmental Management Act*. An appeal must be delivered within 30 days from the date that notice of this decision is given. For further information, please contact the Environmental Appeal Board at (250) 387-3464.

Administration of this permit will be carried out by staff from the Cariboo Region. Plans, data and reports pertinent to the permit are to be submitted to the Regional Manager, Environmental Protection, at Ministry of Environment, Regional Operations, Cariboo Region, Suite 400 - 640 Borland St., Williams Lake, BC V2G 4T1.

Yours truly,

[sign]image:SigningAuthoritySignatureId

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Ministry of Environment

Environmental Protection Division Suite 400 - 640 Borland St. Williams Lake, BC V2G 4T1 Cariboo Region Telephone: (250) 398-4530 Facsimile: (250) 398-4214 for Director, *Environmental Management Act* Cariboo Region

Enclosure

cc: Tolko Industries Ltd. (900 Waterfront Centre, 200 Burrard St, Vancouver BC V7X 1T2) Environment Canada



MINISTRY OF ENVIRONMENT

PERMIT

7206

Under the Provisions of the Environmental Management Act

TOLKO INDUSTRIES LTD.

180 Hodgson Road Williams Lake BC V2G 3P7

is authorized to discharge refuse to ground from a sawmill and logyard complex located in Williams Lake, British Columbia, subject to the terms and conditions listed below. Contravention of any of these conditions is a violation of the *Environmental Management Act* and may lead to prosecution.

This permit supersedes and amends all previous versions of permit 7206 issued under Part 2, Section 14 of the *Environmental Management Act*.

1. AUTHORIZED DISCHARGES

1.1 Wood Residue Landfill

This section applies to the discharge of wood residue from a sawmill and logyard complex. The site reference number for this discharge is E210038.

- 1.1.1 The maximum authorized rate of discharge is $68,000 \text{ m}^3/\text{year}$.
- 1.1.2 The characteristics of the discharge shall be wood and wood fragments with a linear dimension not to exceed 60 cm and boiler ash.
- 1.1.3 The authorized works are a wood residue landfill and related appurtenances approximately located as shown on the attached site plan.
- 1.1.4 The location of the facilities from which the discharge originates is a portion of District Lot 71, Cariboo District.

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1.1.5 The location of the point of discharge is District Lot 6995, Cariboo District, located approximately as shown on the attached site plan.

2. GENERAL REOUIREMENTS

2.1 Maintenance of Works and Emergency Procedures

The authorized works shall be inspected regularly and maintained in good working order. In the event of an emergency or condition beyond the control of the permittee, including, but not limited to, unauthorized fires arising from spontaneous combustion or other causes, or detection of leachate, the permittee shall take appropriate remedial action and notify the Director within 60 hours. The Director may reduce or suspend operations to protect the environment until the authorized works have been restored, and/or corrective steps taken to prevent unauthorized discharges.

2.2 Process Modifications

The Director shall be notified prior to implementing changes to any process that may adversely affect the quality and/or quantity of the discharge.

2.3 Site Preparation and Restoration

Provision of fencing, site access control, vehicle safety barriers, surface water diversionary works, firebreaks and site restoration as required, shall be carried out to the satisfaction of the Director.

2.4 Landfill Operation

The following requirements apply to the landfill operation unless varied by an approved development plan submitted pursuant to clause 2.7.

2.4.1 All refuse must be confined to the smallest practical area and reduced to the smallest practical volume at the operating face of the landfill. Refuse must be deposited in horizontal lifts. Each lift is to be compacted and covered as soon as completed. The maximum depth of the compacted refuse must not exceed 3 metres, prior to the application of a minimum of 0.3 m of intermediate cover material.

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2.4.2 Surface drainage must be diverted away from the landfill and completed sections of the landfill must be properly graded to allow drainage from the landfill and prevent ponding on the surface of the landfill.

Should the offsite migration of leachate or surface drainage become a concern, the Director may require the permit holder to take measures to reduce the impact on the environment.

- 2.4.3 The completed fill faces must have a maximum slope of 2H:1V.
- 2.4.4 Final cover must be applied to all completed areas of the landfill. This cover shall be sloped so as to prevent ponding of surface water and to prevent erosion by runoff. When final cover is complete, it must be planted with appropriate vegetation, under the direction of a qualified professional
- 2.4.5 After June 30, 2012, daily landfill operation must be overseen by a person certified as either a Manager of Landfill Operations or a Qualified BC Landfill Operator by the Solid Waste Association of North America or equivalent certification as approved by the Director. Proof of certification must be submitted to the Director upon request.

2.5 Prohibited Waste

No waste shall be landfilled which is unacceptable to the Director. Prohibited materials include, but are not limited to, wood residue contaminated with wood preserving chemicals or antisapstain chemicals, demolition debris, tires, metals, putrescible wastes or hazardous wastes as defined by the Hazardous Waste Regulation.

2.6 Fugitive Particulate Emissions

The permittee must take all reasonable measures to control fugitive particulate emissions generated from the landfill operation. The Director may require the permittee to undertake additional measures and/or curtail operations if fugitive emissions impact adjacent properties.

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2.7 Development Plan

The permittee must have a qualified professional prepare and maintain a development plan that addresses design, operation, and closure of the landfill, including:

- 1. Site hydrogeology.
- 2. Leachate generation and management.
- 3. Landfill design, including fill plan drawings, site preparation, and designation of areas excluded from filling.
- 4. Surface water management.
- 5. Facility operations plan, including waste segregation procedures, procedures for controlling fill development, dust control, maintenance and inspection procedures and site access control.
- 6. Anticipated total volume and life of the landfill.
- 7. Landfill closure plan and post closure maintenance.

A development plan must be submitted for the Director's approval by December 31, 2012. Any subsequent updates to the development plan must be submitted for the Director's approval not less than 30 days prior to adoption. Once the development plan is approved, the landfill must be operated in accordance with the development plan and with any conditions of approval of the development plan.

2.8 Management of Metal and Large Woody Debris

Metals must be excluded from the landfill. Woody debris greater than 60 cm in linear dimension which is mixed with incoming waste must also be excluded from the landfill. Areas must be set aside at the landfill site for the collection and storage of metals. Metals and large woody debris must be removed from the landfill regularly for recycling.

3. MONITORING AND REPORTING REOUIREMENTS

3.1 Monitoring Plan

A plan for monitoring potential impacts to groundwater and surface water, must be prepared by a qualified professional. This monitoring plan must be submitted for the Director's approval by December 31, 2012. Any amendments to the monitoring plan must be submitted for the Director's

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		Cariboo Region

approval not less than 30 days prior to adoption. Once the monitoring plan is approved, the landfill must be monitored in accordance with the plan and with any conditions of approval of the plan.

3.2 Monitoring Procedures and Quality Assurance

Sampling shall be carried out in accordance with the procedures described in "British Columbia Field Sampling Manual for Continuous Monitoring Plus the Collection of Air, Air-Emission, Water, Wastewater, Soil, Sediment, and Biological Samples, 2003 Edition (Permittee)", or most recent edition, or by suitable alternative procedures as authorized by the Director

Analyses are to be carried out in accordance with procedures described in the latest version of "British Columbia Laboratory Methods Manual for the Analysis of Water, Wastewater, Sediment, Biological Materials and Discrete Ambient Air Samples (2003 Permittee Edition)", or the most recent edition, or by suitable alternative procedures as authorized by the Director.

Copies of the above manuals may be purchased from Queen's Printer Publications Centre, P. O. Box 9452, Stn. Prov. Govt. Victoria, British Columbia, V8W 9V7 (1-800-663-6105 or (250) 387-6409). A copy of the manual is also available for inspection at all Environmental Protection offices.

Analyses of samples for parameters designated in the Environmental Data Quality Assurance Regulation shall be at a laboratory registered for the designated parameter under the Regulation. In addition, the Permittee shall participate in quality assurance audits as required by the Regulation.

3.3 Annual Report

An annual report shall be prepared by a qualified professional and submitted to the Director. The report shall include, but is not limited to, the following items:

- volume (quantity) of refuse discharged in the reporting period;
- volume (quantity) of each major refuse component discharged;
- portions of the landfill that were closed and remaining landfill capacity;
- summary of monitoring data obtained during the reporting period, and

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		Cariboo Region

interpretation;

- any changes in the monitoring program, or landfill operation from the preceding period;
- review of the closure plan; and
- An annual inspection report prepared by a qualified professional which discusses operation of the site and makes an evaluation of compliance with the development plan.

Based on the results of the monitoring program and/or other information obtained in connection with this discharge, the permittee may be required by the Director to provide additional information. Annual reports are due by June 30^{th} for the previous twelve month period.

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Environmental Protection

SITE PLAN



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APPENDIX B

SITE PHOTOGRAPHS



Landfil Development Plan Permit 720 Wood Reidue Landfi Tolko Industries Lidt. Loveview Lumber Divisio TerroWest File No: TPWL12-0 Page 1 of



Photo 1. A panoramic image of the Site from the Northeast corner of the Land





Environmental Management and Consulting



Landfill Development Pian Permit 7200 Wood Residue Landfil Toliko Industries Ltd. Laveview Lumber Division TerraWest File No: TPWL1201





hoto 6. Perimeter ditch along the eastern boundary of the



Photo 7. Erosion of cap material a result of Intense rainfall surface water flow.



Photo 8. Ditching and capped fil slopes along the western boundary of the Landfil.



Photo 9. Soil biocel located along the southern boundary of the Site.

Environmental Management and Consulting



Page 3 of 3



Photo 10. Legal survey corner pin to the Site.



APPENDIX C

DOMESTIC WELL SEARCH





Planning Application Advisory Planning Commission Comment Form

Date of Meeting: Location of Meeting:

OFFICE. CR

KO

File Number: Application Type: **Electoral Area:** Legal Description: **Property Location:** 3015-20/E20250001 Soil or Fill Use E District Lot 6995, Cariboo District North of Bysak Rd

Allen Sa

andace

Jerry

ATTENDANCE

Present:

Chair: Members:

Lamb-Yorski

Recording Secretary: Owners/Agent: □Contacted but declined to attend

Absent:

Also Present: Staff Support:

Electoral Area Director: Melipada Newfold
RESOLUTION be SUPPORTED / REJECTED for THAT application with File Number _3015-20/E20250001 the following reasons: 1) Very well managed plan No change to previous operations. 2) For: (Against: CARRIED DEFEATED Termination: That the meeting terminate. Moved: 3:40. Candace Staffind. Seconded: Allen Schood

Time:

Recording Secretary



CARRIED



February 25, 2025

Connor Ikoma Planning Officer 1, Cariboo Regional District **Sent by email: cikoma@cariboord.ca**

Re: ALC File #102739; Local Government File #3015-20/E20250001– Soil or Fill Use, at District Lot 6995 – unaddressed parcel (No PID) – The Subject Property

Dear Connor Ikoma,

Thank you for providing the opportunity for Ministry of Agriculture and Food (Ministry) staff to comment on File #3015-20/E20250001, that proposes to operate a wood and dirt waste landfill within the Agricultural Land Reserve (ALR) on the Subject Property. From a land use planning perspective, Ministry staff offer the following comments:

- The application proposes an extension of historic approval (ALC File #D-20862 issued in 1997 as an extension of the original decision issued in 1987) that permitted previous companies to use the Subject Property as a landfill for the disposal of non-prohibited wood and soil waste.
- The Subject Property has been the site of a landfill to dispose of material from the nearby sawmill and log yard since the 1980s. Gravel has also been extracted from the Subject Property, but the application states that this has not happened since 2016, and there are no immediate plans for any further gravel extraction.
- The application anticipates wood and dirt waste disposal to take place on the Subject Property for the next 15 years with an anticipated fill volume of 1,100,000 m³.
- Ministry staff are concerned that the Landfill Development Operation and Closure Plan submitted with the application was created in 2013 and thus, can be considered out of date. It is recommended that CRD staff request a

new plan, as site conditions and concerns may have changed over the past 12 years.

• Ultimately, while the application is unlikely to provide a benefit to agriculture on the Subject Property, Ministry staff recognize the landfill has existed in this location for approximately 40 years and was previously approved by the ALC.

Please contact Ministry staff if you have any questions regarding the above comments.

Sincerely,



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