

## 1.0 GENERAL PROPOSAL INFORMATION

This form prescribes the nature and sequence of the information required to file a proposal for a development pursuant to subsections 10(3), 11(7), and 12(3) of *The Environment Act*.

<b>Name of the development:</b> Tolko construction of the Dickstone South Road (includes Grass River Bridge)		
<b>Legal name of the proponent of the development:</b> Tolko Industries Ltd. Manitoba Solid Wood Division		
<b>Location of the development:</b> Dickstone South Road route extends northward from PTH 39 to the Chisel Lake Rail Bed Forest Management Unit 60 Grass River Provincial Park Highrock Forest Section	<b>Legal description:</b> Dickstone South Road and Grass River Bridge:  Twp 65w22 – sections 3, 10, 15, 22, 23, 26, 35 Twp 66w22 – sections 2, 11, 12, 13, 14, 23, 25, 26	
<b>Name of proponent contact person for purposes of the environmental assessment:</b> Doug Hunt, Acting Woodlands Manager Tolko Industries Ltd. Manitoba Solid Wood Division		
<b>Mailing address:</b> P.O. Box 5200 The Pas, MB		
<b>Postal code:</b> R9A 1S1	<b>Telephone:</b> (204) 623-8542	<b>Fax:</b> (204) 623-4560
<b>Date:</b> March 10, 2008	<b>Signature of the proponent, or corporate principal of the corporate proponent:</b>  <i>Original signed by Doug Hunt</i>  <b>Printed name:</b> Doug Hunt	

## 2.0 DESCRIPTION OF THE DEVELOPMENT

The proposed development is to take place on Manitoba provincial Crown land. The classification of these Crown lands is described in the Manitoba Forest Inventory and within the Grass River Park Management Plan (Manitoba Natural Resources 1984).

The Dickstone South Road is proposed as an all-weather road (Tolko Class 2 Road) for which the road corridor right-of-way (ROW) as shown on Map 1 (Appendix A) and the aerial photograph mosaic provided in Appendix B will be contained within the lands included within the legal description provided in this application.

The bridge site location is at the intersection of the Dickstone South Road corridor with the Grass River as illustrated on Map 1.

The southern portion of the Dickstone South Road route (kilometre 0 to 7.2), including the portion of the road in the immediate vicinity of the proposed Grass River bridge crossing site (at kilometre 1.5 north of PTH 39) is contained within the general recreation zone of FMU 60 which is the Grass River Provincial Park. The northern portion of the Dickstone South Road (kilometre 7.2 to 16.9) is contained within the commercial resource/recreation zone of the Park. This commercial resource/recreation zone is included in Forest Management Licence (FML) Area No. 2 for which Tolko Industries Ltd. (Tolko) is licenced to plan and conduct forest management activities.

### 2.1.1 Certificate of Title

The certificate of title was provided to Tolko Industries Ltd. by way of a Forest Management License (FML) Agreement which specifies the rights and responsibilities of Tolko with respect to the area of Manitoba assigned as Forest Management License Area No. 2. Section 8 A of the FML Agreement references the title as follows:

8. (A) *The minister and the Company hereby enter into a Forest Management License Agreement in respect of the Forest Management License Area comprising Provincial Crown lands herein described and illustrated on plan Number 19634 filed in the office of the Director of Surveys, at Winnipeg. Which has been subdivided in accordance with the purpose and intent of Sections 9.01 and 9.02 of the Share Purchase Agreement as follows:*

- (i) *Area I consisting of the Portion of Forest Management Unit 12 lying north of Townships 47 inclusive, the portion of Forest Management Unit 47 lying north of Township 47 and west of Range 13 W.P.M inclusive, the portion of Forest Management Unit 51 lying west of Range 13 W.P.M inclusive, all of the Forest Management Units 52, 53, 54, 55, and 56, all of the Highrock Forest Section and Forest Management Units 83, 84, 85, 87, and 89.*

It is also clearly stated within the Forest Management License Agreement that the company shall be entitled to those portions of timber resources within the limits of Provincial Parks which are included in the FML Area in accordance with Provincial Park policy and plans. (Section 19 A, FML Agreement)

### **2.1.2 Legal Description**

The Dickstone South Road is located in Forest Management Unit (FMU) 60 which is the Grass River Provincial Park. The road is routed northward from PTH 39 through townships 65w22 – sections 3, 10, 15, 22, 23, 26, 35 and 66w22 – sections 2, 11, 12, 13, 14, 23, 25, 26.

### **2.1.3 Maps of Proposed Development**

As requested, please find attached a detailed plan of the proposed road route and the crossing site of the Grass River illustrated on Map 1 and on the attached aerial photographs.

Appendix A – Maps:

Map 1: Proposed Dickstone South Road Development - Grass River Park

Appendix B - Aerial Photograph Mosaic of Proposed Dickstone South Road Development

Our review of the Grass River Provincial Park Management Plan has led us to route the proposed road between Loucks Lake and Reed Lake.

## **2.2 Name of the owner of Mineral Rights beneath the Land**

There are currently four groups that have claims staked along the proposed Dickstone South Road (Table 1). As noted in Section 14 of the Company's FML Agreement there will be access made for community, industrial operation or other facility deemed to be in the public interest. As such, within the limitations imposed to mitigate potential impacts of the road, including access control actions, it is anticipated that the groups having mineral claims in the area will have use of this road to conduct and develop their mineral rights.

**Table 1: Staked Claims Beneath Proposed Dickstone South Road Route**

Name	Number	Holder	Staked	Recorded	Expires	Hectares
LEAK 5221	MB5221	VMS VENTURES INC	9/19/2007 18:00	9/24/2007	11/23/2009	186
ROSS 3	MB7965	INTERNATIONAL SAMUEL HOLDING CORP.	10/4/2007 15:40	10/22/2007	12/21/2009	169
RAC 6624	MB6624	WILDCAT EXPLORATION LTD.	1/18/2006 10:30	1/20/2006	3/20/2008	256
RAC 6622	MB6622	WILDCAT EXPLORATION LTD.	1/14/2006 16:30	1/20/2006	3/20/2008	193
RAC 6623	MB6623	WILDCAT EXPLORATION LTD.	1/14/2006 14:50	1/20/2006	3/20/2008	120
KRUG 4	MB8034	WILDCAT EXPLORATION LTD.	11/5/2007 9:30	11/9/2007	1/8/2010	250
KRUG 3	MB8033	WILDCAT EXPLORATION LTD.	11/5/2007 17:00	11/9/2007	1/8/2010	220
KRUG 2	MB8032	WILDCAT EXPLORATION LTD.	11/3/2007 9:00	11/9/2007	1/8/2010	170
KRUG 1	MB8031	WILDCAT EXPLORATION LTD.	11/2/2007 16:00	11/9/2007	1/8/2010	196
WINE 1	MB5377	W.S FERREIRA LTD	9/26/2004 16:25	10/14/2004	12/13/2017	256
WINE	MB3964	W.S FERREIRA LTD	12/18/2002 15:03	1/8/2003	3/9/2018	256

**Source: Manitoba Mines Branch**

### 2.3 Description of Existing Land Use

It is planned to route the Dickstone South Road in a north/ south corridor through a portion of FMU 60 which is the Grass River Provincial Park. The proposed development will be undertaken on Crown lands within this corridor. As described in the Grass River Park Management Plan, developed in 1984, the Park is classed as a Provincial Natural Park (Manitoba Natural Resources 1984). Under this plan the allowed land uses are described based upon the zone within which the land area is contained.

The Grass River Provincial Park Management Plan was reviewed as part of the preparation of this application and the corresponding assessment of the potential impacts. Section 13 of the Management Plan for the Grass River Park outlines the four zoning categories within the Park. The four categories are:

1. Special Areas Zone, reserved for significant and sensitive features requiring strict protection from human disturbance. This may be on a year round, seasonal, or short term basis as required.
2. Developed Recreation Zone, includes existing and planned recreational developments and their associated facilities and infrastructure
3. General Recreation Zone, set aside primarily for a wide range of recreational activities and, secondarily, for a number of commercial activities deemed generally compatible with those recreational uses.
4. Commercial Resource/Recreation Zone, intended to provide opportunities for both general recreation and intensive commercial resource uses.

The proposed Dickstone South Road is a total of 16.9 kilometres (kms) in length; of this total there are 7.2 kms located in the General Recreation Zone (Closed) and 9.7 kms located in the Commercial Resource/Recreation Zone (Open). This latter portion of the proposed road route within the commercial resource/recreation zone is included as a portion of the Forest Management Licence (FML) Area No. 2 for which Tolko is licenced to plan and conduct forest management activities.

Review of the Grass River Provincial Park Management Plan indicates the following key items which are identified as being relevant to this development proposal:

- a. It is noted that a forestry access/utility corridor allowance has been identified on Map 1 of the park plan, with several associated text references describing the location, to allow for resource sector access through the park to timber resources north of the Grass River Park.
  - The allocated route, foreseen at the time of the park plan development in 1984, indicates crossing of the Grass River just east of Loucks Lake.
  - The park plan indicates that this allocated corridor provides a mechanism to limit crossing of the Grass River to a single location and to coordinate the clearing of right-of-way for forestry access road and utility corridor purposes to the same location north of the river.
  - This access/utility corridor is clearly addressed in the plan in terms of allowance for this foreseen future infrastructure within the General Recreation Zone through which it will pass from PTH 39 northward to the Commercial Resource/Recreation Zone through which the rail bed passes. It is noted that conditional use permission may be granted for such a right-of-way through the General Recreation Zone.
- b. Grass River Park is classified as a Provincial Natural Park, recognizing its relatively large size and capacity to host a wide range of outdoor recreational activities while being adaptable to multiple-use management. One of the park's precepts is to accommodate commercial use of resources where this does not lessen future recreational use or unduly compromise the park's primary purposes.
- c. The land use zoning that applies to the Grass River Provincial Park recognizes its value for both recreation values and for commercial resource uses as reflected within the descriptions that apply to the areas through which the forestry access/utility corridor pass:
  - The general recreation zone, starting at PTH 39, the park plan acknowledges that the forestry access road/utility corridor is an accepted use in this zone, under a special use condition and,
  - The commercial resource/recreation zone, through which the northern half of the route passes, is intended to accommodate recreation uses as well as "intensive" commercial or resource uses.

Tolko would like to note that there has been resource access through this area in the past in the form of a winter road servicing the Dickstone Mine site. Sections of this route, which has been out of service for a number of years, came within approximately 1 kilometre of Reed Lake. It is noted, however, that the route proposed for this all-weather road will be more isolated and will

be located away from both Reed Lake and Loucks Lake, excepting the approach to the Grass River crossing site.

## **2.4 Land Use Designation**

The land use zoning that applies to the Grass River Provincial Park recognizes its purpose to accommodate both recreation values and for commercial resource uses as reflected within the descriptions that apply to the areas through which the forestry access/utility corridor pass. The following points summarize key provisions outlined in the Grass River Park Management Plan:

- For the general recreation zone, through which the southern portion of the proposed road is routed, starting at PTH 39, the Park Management Plan acknowledges that the forestry access road/utility corridor is an accepted use in this zone, under a special use condition (see mitigation);
- The commercial resource/recreation zone, through which the northern half of the route passes, is intended to accommodate recreation uses as well as “intensive” commercial or resource uses;
- The allocated access/utility corridor route, foreseen at the time of the Park Plan development in 1984, indicates crossing of the Grass River just east of Loucks Lake;
- The Park Plan indicates that this allocated corridor provides a mechanism to limit crossing of the Grass River to a single location and to coordinate the clearing of right-of-way for forestry access road and utility corridor purposes to the same location north of the river; and,
- This access/utility corridor is clearly addressed in the Park Plan in terms of allowance for this foreseen future infrastructure within the General Recreation Zone through which it will pass from PTH 39 northward to the Commercial Resource/ Recreation Zone through which the connecting rail bed passes. It is noted that conditional use permission may be granted for such a right-of-way through the General Recreation Zone.

Under this proposed development, there is 9.7 kms of the proposed road that will be routed through an area of the park that has been set aside as a place to provide general recreation and commercial development. The southern 7.2 kms of the road route that is located in the closed zone has been provided for through the Grass River Park Management Plan. The proposed crossing of the Grass River is located in the closed zone of the park, approximately 1.5 km north of PTH 39.

## **2.5 Description of Previous Studies**

There have been several previous studies that are relevant to the proposed development of the Dickstone South Road and the Grass River Bridge. These include the following:

- Grass River Park planning process by the government of Manitoba (Manitoba Natural Resources Parks Branch)
- Tolko route selection process including examination of alternatives
- Forest Management Plan (1997 – 2009 FMP) and Annual Harvest and Renewal Plan development by Tolko

- Sustainable Forest Management Plan development and implementation by Tolko
- Environmental Management System (EMS) development and implementation by Tolko
- Heritage Resources Impact Assessment
- Public consultation processes have occurred

### **2.5.1 Grass River Provincial Park Management Plan**

The management plan for the Grass River Provincial Park was published in December 1984 as a guide for the conservation, management, and development of the park's resources. The plan provides clear indication that recreational and commercial development is allowed for within the boundaries of the park while managing to maintain the natural environment. It is clear from the park management plan that the planning team had contemplated and made allowance for the future requirement for construction of an access/utility corridor through the park in order to access timber and other resources north of the park. This contemplated need is noted in the park management plan as a foreseen allowable use for this purpose. The development of the access/utility corridor is illustrated on Map 1 of the Grass River Park Management Plan and referenced in several supporting references in the plan text. A portion of the planned Dickstone South Road is routed through the General Recreation Zone of the park, following this previously contemplated access/utility corridor which was indicated as an allowable use exception to the general goal for this zone of not creating roads or other infrastructure. The contemplated corridor included the crossing site of the Grass River being proposed in this proposed development.

Further detail of the allowed uses and the access/utility corridor itself as referenced by the Grass River Park Management Plan have been described earlier in this application within the description of existing land uses and the land use designation.

### **2.5.2 Tolko's Route Selection**

As a part of the Company's planning process we routinely assess what potential options may best be pursued for access and delivery of wood from operating areas being developed.

For the Dickstone South Road, the selection of this route has been based upon several key factors:

- a. The inclusion of this route as an access/utility corridor in the Manitoba Conservation (MC) Grass River Provincial Park Management Plan (Manitoba Department of Natural Resources Parks Branch, December 1984) to allow for timber access to areas north of the Grass River Park;
- b. The directness that this route provides to the timber in the Loonhead Lake/Wheadon River Operating Area, thus enabling economically viable delivery of this timber resource; and,
- c. Input received from the public through our public consultation processes which identified a preference for this option for hauling of timber from the area as opposed to hauling via the Snow Lake area.

The cost noted for each of the possible routes is focused only on the loading, hauling, gravel road maintenance and capital road/bridge depletion. The cost to harvest the timber was not included because it was the same for each route selection. The cost implications of the Dickstone South Road route as related to the other options examined by Tolko must be considered over the life of the road and the volume that is planned to be hauled from the Loonhead Lake/Wheaddon River Operating Area which is 3 million cubic metres.

In addition to cost considerations, it is also important to note that several of the other route options that were examined would also have environmental implications including replacement of rail trestles over the Grass River or bridge construction over the File River. The alternate routes that were examined are shown on Map 2 in Appendix A.

### **Preferred Route: Current Proposal for the Dickstone South Road – Grass River Crossing**

This haul route will move timber south from the Loonhead Lake/Wheaddon River area to Highway 39 via an all-weather road through the Grass River Park. A bridge over the Grass River is required just east of Flag Lake. This corridor was identified in the provincial government Grass River Park Master Plan. It is the preferred route for the Company because of the shorter distance to a Road Transportation Association Canada (RTAC) rated Highway. Estimated cost to move wood via this route is \$19.36 per cubic metre (m<sup>3</sup>).

### **Alternate Route Option 1**

Haul timber from the Loonhead Lake/Wheaddon River area west on the Chisel Lake rail bed road and then through the Grass River Park via the Wedge Lake road. The estimated cost to move wood via this route is \$22.47/m<sup>3</sup>. This route would require the replacement of the current eastern rail trestle and the construction/upgrade of 23 km of all-weather road through the Grass River Park. Over the lifetime of the planned operation this alternative route would cost an additional \$9.3 million above the cost of wood delivery via the proposed Dickstone South Road route.

### **Alternate Route Option 2**

Link the Loonhead Lake/Wheaddon River road infrastructure to the Limestone road that runs to the Jungle Lake spur on the Keewatin rail line. This route includes the capital cost for the Loonhead Lake/Wheaddon River area along with the construction of a bridge over the File River and the upgrading of the Limestone road and the Jungle Lake spur. The estimated cost to move wood via this route is \$25.02/m<sup>3</sup>. Over the lifetime of the planned operation this alternative route would cost an additional \$17.0 million above the cost of wood delivery via the proposed Dickstone South Road route.

### **Alternate Route Option 3**

Haul timber west on the Chisel Lake rail bed road to the Keewatin rail line and then onward to The Pas via an all-weather road to Highway 10. This route will require the replacement of two railway trestles currently in place over the Grass River. The estimated cost to move wood via this route is \$28.58/m<sup>3</sup>. Over the lifetime of the planned operation this alternative route would cost an additional \$27.7 million above the cost of wood delivery via the proposed Dickstone South Road route.

#### **Alternate Route Option 4**

Haul timber east on the Chisel Lake rail bed road (towards Snow Lake) to Provincial Highway 395 and then onward to The Pas via Highway 392, and 39. The estimated cost to haul via this route is \$28.80/m<sup>3</sup>. Highway 392 is limited to A1 weights year round. Over the lifetime of the planned operation this alternative route would cost an additional \$28.3 million above the cost of wood delivery via the proposed Dickstone South Road route.

#### **Alternate Route Option 5**

Haul timber east on Chisel Lake rail bed road (towards Snow Lake) and then onward to the Wekusko rail siding via Highways 395, 392, 39, and 596. The estimated cost to move wood via this route is \$31.38/m<sup>3</sup>. Highway 392 is limited to A1 weights year round. Over the lifetime of the planned operation this alternative route would cost an additional \$36.1 million above the cost of wood delivery via the proposed Dickstone South Road route.

The findings of the alternate route study are that the Dickstone South Road route is required to enable delivery of timber from the Loonhead Lake/Wheadon River Operating Area in an economically viable manner in terms of delivery costs and scheduling from feeder roads running from the abandoned Chisel Lake rail bed route (which Tolko has subsequently acquired) into the operating area. Tolko has acquired the use of the abandoned Chisel Lake rail bed to assist in providing access to this operating area. However, the rail bed alone does not provide an adequate option for timber hauling operations from the area. Use of such a route would dramatically increase the haul distance and resulting cycle (roundtrip) time and thus the cost of delivery of wood from the area (increases the distance by 230 kilometres over use of the proposed Dickstone South Road). The Chisel Lake rail bed route also requires the use of PR 392 which includes several bridge crossings that are rated only for A1 load weights. This reduces the load size for the trips and increases the cost per cubic metre of delivery as compared to the RTAC loading that would normally be applied. The cost analysis indicates that these two factors will result in a substantial increase in the cost of delivered wood from the operating area as described above as compared to a route using a north-south corridor through the Grass River Park.

### **2.5.3 Tolko Forest Management Plan & Annual Harvest and Renewal Plans**

Prior to any harvesting, access development or forest renewal operations taking place Tolko undertakes strategic long-term (FMP) planning and operational level (Annual) planning. These processes include ongoing consultations with both the public and with the Manitoba government via the Regional Integrated Resource Management Team (IRMT) of Manitoba Conservation. Our planning staff has undertaken both aerial and ground reconnaissance of the proposed Dickstone South Road route and the crossing site of the Grass River as part of our standard planning process for all road development.

It is noted that the bridge crossing of the Grass River was identified in the 2007/08 Annual Harvest and Renewal Plan submission to Manitoba Conservation (submitted March 21, 2007), with a Watercourse Crossing Data Sheet included which provided some preliminary planning level information, including photographs of the site. An updated copy of this Watercourse Crossing Data Sheet has been included in Appendix C of this application.

#### **2.5.4 Sustainable Forest Management Plan & Environmental Management System**

Tolko has committed to The Sustainable Forest Management (SFM) process and has achieved and maintained certification under the Canadian Standards Association (CSA) Z809-02 Standard. This includes the application of an adaptive management process for management of the FML Area as part of its SFM Plan implementation along with corresponding implementation of an Environmental Management System (EMS) for the woodlands activities. In taking this approach, it is recognized by the Company that it does not have all of the answers available to it at the present time to address all of the issues present on the FML Area, including those such as woodland caribou management in Manitoba. In keeping with the adaptive management approach however, Tolko thinks that the Company and the government of Manitoba need to move forward, making use of the best knowledge currently available upon which to make the needed decisions.

Tolko believes that by making best efforts to take mitigative actions as described in this response, while continuing to work together with MC and the local IRMT, development of the Dickstone South Road can proceed while addressing the values of the Grass River Provincial Park and the woodland caribou.

A key part of the SFM Plan implementation is the tracking of progress made by Tolko as compared to targets that have been set for a series of indicators that have been established through a public process for the FML Area.

As a component of the SFM Plan implementation, Tolko will continue, as it has to date, to stay abreast of research and studies that may be applicable to the management of the FML Area, including effects on woodland caribou and heritage resources.

For additional information on Tolko's SFM system, including the SFM Plan the reader is referred to the Company's forest management and SFM public website at [www.tolkomanitoba.com](http://www.tolkomanitoba.com). The original SFM Plan and subsequent updates to indicators is available for viewing on this site.

#### **2.5.5 Heritage Resources Impact Assessment**

Tolko Industries Ltd. contracted Stantec Consulting Ltd. to conduct a heritage resource impact assessment (HRIA) of the proposed Dickstone South and Norris all-weather roads. The objective of the HRIA was to record the nature, extent, and significance of any intact heritage resources within the proposed all weather road right-of-way. The entire proposed route was flown by helicopter and moderate or high risk areas visited on the ground. The banks of the Grass River were examined through pedestrian surveys and shovel testing. The recommendations from the report are that:

- No further research is required at the east and west approaches of the Grass River prior to construction of the all weather road
- The vault door recorded approximately 115 metres west of the Grass River should be avoided during vegetation clearing and should be left in place during construction
- In the event that heritage resources or suspected heritage resources are exposed during vegetation clearing, Tolko is to retain a qualified archaeologist to examine the site and the heritage resources to determine heritage significance
- A post-impact survey be conducted when the all-weather road has been completed to record the status of the two known archaeological sites and to record and collect any additional heritage resources that may have been exposed during construction of the road

A copy of the Heritage Resource Impact Assessment report and recommendations is included in Appendix D of this application.

### **2.5.6 Public Consultation**

As part of the process for identifying potential concerns and developing mitigation measures, Tolko has conducted several public consultation processes to obtain input on the proposed Dickstone South Road. These discussions were conducted in conjunction with meetings to present and review the Tolko 2007/2008 and the 2008/2009 Annual Harvest and Renewal Plan:

- a. Public open house meetings held in Snow Lake, Flin Flon, Cranberry Portage and Sherridon (January/February 2007 and 2008);
- b. Forest Management License (FML) Area Forest Resource Advisory Committee (FRAC) Meetings held on March 14, 2007, June 6, 2007 and September 26, 2007;
- c. Snow Lake FRAC Meeting held on March 29, 2007;
- d. Use of a mail-out information circular provided to all households via mailbox delivery in the Town of Snow Lake (April 2007) and;
- e. Use of an annual newsletter (Woodworks) to the FRAC and all interested parties on the Tolko mailing list which included a description of the proposed Tolko FMP amendment for the Loonhead Lake/Wheadon River Operating Area (which has subsequently been approved) and the Dickstone South Road and crossing of the Grass River (September 2007) (the newsletter is included in Appendix E).

The public consultation that occurred in 2007 is included in Appendix E. The 2008 public consultation is not complete and will be available upon request in the spring of 2008.

The general consensus received from our discussions with the public regarding the development of the Dickstone South Road is supportive. In particular, Snow Lake community members indicated that this route would be preferable from their perspective as opposed to the alternative whereby the timber from this area would need to be hauled down PR 392 which is also the route for access to the community by townspeople and tourists.

Tolko acknowledges that Manitoba Conservation will need to undertake Crown public consultation with First Nations and/or Aboriginal communities that they view to be potentially affected by this proposed development in order to understand how the proposed development may infringe on the exercise of a Treaty or Aboriginal rights. Should MC require additional

information from Tolko in order to support this consultation process, the Company is prepared to assist as required.

## **2.6 Description of Proposed Development**

The Company limits road construction activity to only that required for sustained operations as a normal course of practice to minimize environmental impacts and the effects of roads on forest productivity while also minimizing construction costs.

The construction, operation and decommissioning of the Dickstone South Road and the bridge crossing of the Grass River will be conducted per the general road development process as outlined in section 5.2 of the approved 1997 – 2009 Forest Management Plan (the FMP). All terms and conditions of approval of the resulting Environment Act Licence 2302 E will be met.

The Dickstone South Road is located in Forest Management Unit (FMU) 60 which is the Grass River Provincial Park. The road runs northward from PTH 39 through townships 65w22 and 66w22.

The Dickstone South Road will be built to the standards of a Category 2 All-weather Secondary Road, as described in Table 5.2 of the FMP and Table 5 of the Tolko Forest Management Planning and Operating Practices (FMPOPs). The road construction standards as presented in these tables are provided in Appendix F. The intent is for this road to provide for economical deliveries of harvested wood from the Loonhead Lake/Wheadon River Operating Area.

The road will be controlled by a locked gate that will only be opened during times of active log haul. Tolko and MC will develop road use agreements with outside parties, who may gain access to this road. Tolko Industries Ltd. anticipates using this road for the next 20 years.

Tolko has been to the proposed crossing site and conducted a preliminary crossing assessment. The assessment indicates that to cross the Grass River with a clear span crossing will require about a 32 metre bridge to span the crossing. Photographs illustrating the proposed bridge location are provided in Appendix G. Upon approval Tolko will have an Engineer ensure that the design of this crossing does not harm fish habitat and addresses any navigable waters concerns. The bridge design will include description of mitigation requirements to address the Canadian Department of Fisheries and Oceans (DFO) Manitoba Operating Statements as applicable.

Though a final design has not yet been completed, Tolko will ensure that the final design and the constructed bridge will be a single lane, clear span with no constriction of the river banks at the crossing site. The height of the bridge above the high water level will allow continued navigation by canoes which are the only type of watercraft using this portion of the Grass River due to existence of rapids along the watercourse.

## **2.7 Identification of Any Storage of Gasoline or Associated Products**

During construction of the Dickstone South Road and the Grass River Bridge, all contractors working on the development will be required to ensure that all equipment is properly maintained to prevent leaks and spills of fuel and motor fluids. Refueling of equipment will not be within 100 m of a water body, stream or wetland. It is recognized that storage of fuels, grease and lubricating oils during construction has the potential to impact water quality of the surface water and shallow ground water. During bridge construction all fueling of equipment will take place at a designated area to ensure the protection of water quality. All construction contractors will be required to have a spill contingency plan in place prior to initiating any construction. All spills will be reported to the appropriate authority and remedial action taken in accordance with applicable regulations. All contractors will follow Tolko's Environmental Management System (EMS) procedures while working on this road and bridge project.

## **2.8 Description of Potential Impacts of the Proposed Development**

To assist us to address the requirement to provide a description of potential environmental impacts of construction, operation and decommissioning of the Dickstone South Road and the Grass River Bridge, we have reviewed the Environmental Impact Statement (EIS) conducted on the Tolko 1997 – 2009 Forest Management Plan. The EIS was prepared by Geomatics International Inc. and was submitted in 1997 along with the 1997 – 2009 FMP for subsequent licensing under the Environment Act.

By reviewing the EIS and the associated recommendations pertaining to all-weather road and water crossing development, in conjunction with the public consultation process that has occurred and our review of the Grass River Park Plan, we can provide MC with a reasonable assessment of potential environmental impacts upon which to base our proposed mitigation actions.

In addition, our planning staff has undertaken both aerial and ground reconnaissance of the route which is part of our standard planning process for all road development. This assists us in determining the mitigation actions that will be applied for this road project. Through this reconnaissance we have noted that aside from the old winter road, which is sometimes used for snowmobiling, there are no other identifiable user features present along the proposed road route. It is also noted that aside from the Grass River there are no other open flowing watercourses crossed by the route. There are drainages present which will require cross-drainage mitigation.

The environmental effects, along with the mitigation actions that the Company proposes to undertake, or that are already in place, to deal with them are described below.

### ***Geology, Topography and Landforms***

Potential environmental effects:

- May require blasting or backfilling to achieve acceptable road bed grades.
- Drilling of the bedrock for pile supports may be required.

Mitigation measures will include as appropriate:

- Road construction effects will be localized to the approved ROW corridor and any approved borrow pit locations.
- The road will be routed to minimize the need for blasting and backfilling.
- Road construction materials will be obtained from within the approved ROW and/or approved borrow pit locations.
- Bridge construction effects will be localized to the approved crossing site.
- Any required materials for bridge approaches will be obtained from within the approaching ROW or approved borrow pits.

### ***Surface Waters, Groundwater, Drainages and Navigation***

Potential environmental effects:

- The main environmental effect of concern pertains to the potential for erosion of soil exposed during road and bridge construction activities resulting in sedimentation into the Grass River.
- The bridge crossing of the Grass River may have a potential effect on navigation of the river at that point.
- Any environmental effects on groundwater would be anticipated to be limited to those potentially resulting from fuel spills related to construction equipment fueling

Mitigation measures will include as appropriate:

- Road construction effects will be localized to the crossing site location at the Grass River in terms of effects on watercourses due to the routing of the road.
- Borrow pits will not be located on the downslope to any watercourse.
- Stumping of the ROW will be minimized at the crossing site, particularly on the downslope to the river.
- Use of erosion control measures (use of granular materials, road crowned to promote drainage, ditching and cross drains installed as needed for drainage, deflection berms as needed to deflect water flow into adjacent vegetation, seeding of exposed steep slopes/ditch areas to stabilize soils, placement of rip-rap and the use of silt fences where needed ).
- The road will be routed to avoid encroaching upon any lakes or other open flowing watercourses.
- Smaller drainages will be mitigated through use of culverts to maintain flows.
- Avoid placing any foreign substance into the watercourse.
- Bridge design and construction will meet the requirements of the *Manitoba Stream Crossing Guidelines* and the federal *Navigable Waters Protection Act* and the *Fisheries Act*.
- The crossing design will be engineered to meet appropriate safety and environmental standards, and will make use of a clear-span type bridge with no support structures entering the watercourse.
- No constriction of the river will occur.
- Application will be made to, and discussions will be held with, Transport Canada, Canadian Department of Fisheries and Oceans and Manitoba Water Stewardship, and Manitoba Conservation Fisheries and Parks staff

- A Forest Road Development Plan (FRDP) will be developed for the Dickstone South Road in consultation with the regional MC IRMT to include final routing location with respect to lakes and other watercourses and features along the route
- The bridge construction and maintenance will follow the requirements as described in the DFO Habitat Management Program Operational Statements for Manitoba for Clear-Span Bridges ([http://www.dfo-mpo.gc.ca/regions/central/habitat/os-co\\_prov-terr/mb/os-co05\\_e.htm](http://www.dfo-mpo.gc.ca/regions/central/habitat/os-co_prov-terr/mb/os-co05_e.htm)) and for Bridge Maintenance ([http://www.dfo-mpo.gc.ca/regions/central/habitat/os-co\\_prov-terr/mb/os-co04\\_e.htm](http://www.dfo-mpo.gc.ca/regions/central/habitat/os-co_prov-terr/mb/os-co04_e.htm))
- During decommissioning, control measures will be utilized as needed to minimize any erosion and sedimentation into the watercourse.
- Any installation and future decommissioning work that will require “in-stream” work will be undertaken within the approved “in-stream work window” as per MC and/or DFO approval.
- Appropriately sized clean rock will be used where needed to re-enforce and stabilize the stream bank.
- Any excavated material and debris will be moved sufficiently away from the watercourse to minimize erosion into the water.
- No refueling of equipment within 100 metres of any water body
- Fueling of equipment during bridge construction will be limited to a designated fueling area away from the river
- All contractors will be required to have a spill contingency plan in place prior to starting work
- All construction contractors will be required to follow the direction provided by the Tolko EMS
- A follow-up inspection will be held after spring thaw or at the earliest opportunity to ensure a successful installation and decommissioning project
- Annual road and bridge inspections are routinely conducted as an element of the Tolko EMS to identify any concerns and ensure that mitigation measures that have been implemented remain effective
- Road and bridge maintenance practices are conducted with input from the inspection process to maintain the effectiveness of mitigation measures, including those to maintain surface and sub-surface drainage.

As noted above, Tolko notes that there is canoe watercraft navigation of the Grass River at the point at which the bridge crossing site has been proposed. As such, Tolko will make application to Transport Canada for a permit under the Navigable Waters Protection Act.

It is also noted that the Company is aware of the need to meet DFO requirements under the Fisheries Act for the Grass River bridge crossing. In this regard, as noted above, the Company will meet all requirements of the DFO Manitoba Operational Statements for a Clear-span bridge structure installation.

With respect to information requirements of Transport Canada and DFO, the reader is directed to the additional information that is now included in the Appendices for this application:

Appendix A: Map I: Proposed Dickstone South Road Development - Grass River Park

Appendix B: Aerial Photograph Mosaic of Proposed Dickstone South Road Development

Appendix C: Updated Watercourse Crossing Data Sheet – Grass River Crossing Site

Appendix G: Photographs illustrating the proposed Grass River Bridge location

### ***Soils***

Potential environmental effects:

- Construction of the road itself necessitates removal of organic layers and compaction of granular materials for the roadbed; along with similar effects for borrow pit areas, thus taking this area out of productive land status for the life of the road.
- Exposure of soils along the ROW area could lead to erosion effects.
- Crossings of wet/peatland areas could interrupt drainage patterns and disturb these soils

Mitigation measures will include as appropriate:

- The addition of the Dickstone South Road will continue to maintain the level of all-weather roads across the FML Area well below the target set for SFM Indicator 3.1.1.1.3/4.1.1.1.1 B to keep the level of all-weather roads in the FML Area to less than 0.5% of productive land
- The Company is continuing in its program to close/decommission roads in discussion with MC to reduce the overall effect across the FML Area
- Use of erosion control measures (use of granular materials, road crowned to promote drainage, ditching and cross drains installed as needed for drainage, deflection berms as needed to deflect water flow into adjacent vegetation, seeding of exposed steep slopes/ditch areas to stabilize soils, placement of rip-rap and the use of silt fences where needed ).
- Ditching and deflection berms as needed will assist to control water movement along the ROW area to minimize erosion effects.
- The road will be routed to avoid wet ground/peatland areas to the extent possible and practical.
- Where crossings of wet ground are required retention of the root mat, use of geotextile materials for re-enforcement support along with application of cross-drainage culverts to maintain surface and sub-surface flow will be used.

### ***Vegetation and Trees***

Potential environmental effects:

- Clearing of the ROW for the road necessitates removal of vegetation and trees for the roadbed and ROW, along with similar effects for borrow pit areas, thus taking this area out of productive land status for the life of the road.
- Ongoing maintenance operations will necessitate maintaining the ROW clear of vegetation that will impede line-of-sight and that would prevent drying of the roadbed.

Mitigation measures will include as appropriate:

- The addition of the Dickstone South Road will continue to maintain the level of all-weather roads across the FML Area well below the target set for SFM Indicator 3.1.1.1.3/4.1.1.1 B to keep the level of all-weather roads in the FML Area to less than 0.5% of productive land
- The Company is continuing in its program to close/decommission roads in discussion with MC to reduce the overall effect across the FML Area
- ROW maintenance clearing operations will be limited to only those required to maintain safe haul operations. Mechanical or manual methods will be used for vegetation control.

### ***Fish and Wildlife, particularly Woodland Caribou***

Potential environmental effects:

- The main concern pertains to the potential for access to the area, and potential unregulated hunting and disturbance of the woodland caribou, which is put into place via the road and bridge crossing
- Also establishes a potential access point to the Grass River for fishing

Mitigation measures will include as appropriate:

- Access control is discussed as a key recommendation in the thesis paper: Distribution and Movement of Woodland Caribou on Disturbed Landscapes in West-Central Manitoba: Implications for Forestry (C. Lander 2006), based on work that included the Naosap Operating Area.
- The Company will work with MC and the local IRMT to establish gates at both ends of the road (PTH 39 and Chisel Lake rail bed) to provide access control to the area, which will provide mitigation with respect to hunting and fishing activities on this route
- Use of the road from PTH 39 will be limited to logging operations only
- The wood haul occurs on an intermittent basis, and in addition, the road will be kept gated at all times except for the passage of individual trucks during the haul. Hauling does not normally occur during the spring or fall.
- To enhance contractor awareness, Tolko will make contractors operating in the area aware of the special importance of operating conditions for use of the Dickstone South Road in terms of the use of the area by woodland caribou, the designated status of this species in Manitoba, and the route of the road passing through a provincial park. This will include instructions that the gate is to be closed and locked at all times once each truck has passed. Signs will be erected to assist in this regard at both end entry points to the road, and these factors will be discussed at the Annual Contractors Meeting to heighten awareness.
- The road will be decommissioned and made impassable from both the north (Chisel Lake rail bed) and the south (PTH 39) access points once harvesting, delivery and forest renewal operations have concluded in the operating areas being accessed by this road.
- Decommissioning will include the removal of the bridge structure over the Grass River thus eliminating this access route.

### *Heritage Resources*

Potential environmental effects:

- The construction of the road has the potential to disturb heritage resources that may exist along the route.

Mitigation measures will include as appropriate:

- The Company contracted a qualified archeologist to conduct a heritage resource assessment of the road prior to road construction; this is a standard operating procedure for the Company in development of all all-weather roads.
- Recommendations arising from the archeologist's report have been incorporated as part of the mitigation strategy for planning the construction of the road
- The Company holds ongoing meetings with the IRMT each year as part of the mitigation process, with particular focus on discussing and developing mitigation for non-timber values, such as heritage resources. This provides an ongoing avenue for inter-government consultation should the IRMT feel that further detailed review of any particular area is necessary with respect to heritage resources for development of the Dickstone South Road.

### *Air Pollution and Quality (Benefits)*

Potential environmental effects (**benefits**):

- Delivery of wood harvested at Loonhead Lake/Wheadon River Operating Area via the Dickstone South Road will result in decreased emissions and decreased fuel use as compared to delivery of the wood via the Snow Lake route due to the decreased haul distance
- At current fuel consumption levels it is estimated that construction and use of the Dickstone South Road would save 7.8 million liters of diesel fuel from being consumed over the next 20 years.
- The use of the Dickstone South Road would also reduce the truck trip frequency that would otherwise occur via the Snow Lake route, which would be compounded by the higher number of trips that would be required due to lower weight limitations allowed on the Snow Lake Highway PTH 392.

Mitigation measures will include as appropriate:

- The construction and use of the Dickstone South Road offers the opportunity to apply the shortest distance haul route, thus minimizing emissions and fuel use
- Ensure RTAC loads can be hauled from this location

### *Socio-Economic Impacts - Aesthetics and other Grass River Park Uses*

Potential environmental effects:

- The road and bridge over the Grass River have potential to affect the aesthetic values of the park at those localized locations.
- Should the road intersect snowmobile trails there could be an effect at these intersection points.
- Should the road route come into proximity with fishing lodges in the area there could be an effect.

Mitigation measures will include as appropriate:

- The designation of the Grass River Provincial Park and the park plan both recognize the corridor that has been set aside for this road route, and recognize timber harvesting and related activities as acceptable activities within the park, based upon zoning and special use designation
- The road corridor and the crossing of the Grass River are localized in terms of effect
- The placement of access control via the gates at each end of the road will limit the access of the general public to these areas, thus assisting in mitigation of hunting and fishing activities
- Should any snowmobile trails intersect the road route, the Company will work with the snowmobile club or other representative to ensure the trail is not blocked and a route of passage is provided for
- In consultation with the IRMT, Tolko will design the road and clear the right-of-way (ROW) such that a variable width buffer is maintained along the road to the extent that terrain and vegetation conditions permit. The buffer will incorporate terrain features, non-merchantable trees and other vegetation, as well as merchantable trees as needed to provide a visual barrier from the road. The minimum width of this buffer will be determined in discussion with the IRMT in developing the FRDP.
- The road alignment will follow terrain features to the extent that safe operating conditions will permit, helping to reduce sightlines along the roadway.
- Tolko, as part of its on-going public consultation process, will communicate with fishing lodge owners in the area to make them aware of the access control mitigation that is to be put in place on the road
- Contact lodge owners and outfitters in the area prior to construction to address any timing concerns

### ***Socio-Economic Benefits – Contribution to Stable Operation at The Pas***

Potential effects (Benefits):

- Construction of the Dickstone South Road enables delivery of a source of timber that will make a significant positive contribution in terms of reducing the overall wood cost of the operation at The Pas as compared to the result of using alternative delivery routes for this timber
- Improves competitiveness in what is currently an extremely difficult operating environment for the forest industry
- Allows for economically feasible harvest of timber from this portion of the FML Area, which if otherwise not harvested, places additional pressure on other areas
- In the reverse situation, should the Dickstone South Road not be built, the operation at The Pas will face higher wood costs to replace this volume resulting in adverse economic conditions
- Also in the reverse situation, should the Dickstone South Road not be built, a requirement to deliver the wood via the Snow Lake route will result in more log trucks traveling on public highways and through communities

Mitigation measures will include as appropriate:

- A key factor that needs to be considered is that within the Grass River Provincial Park Management Plan there is recognition of the need for the corridor that has been set aside for this road route, and recognition that timber harvesting and related activities are acceptable activities within the park, based upon zoning and special use designation.
- It should also be noted that the wood haul on this route will occur on an intermittent basis, and in addition, the road will be kept gated at all times except for the passage of individual trucks during the haul. Hauling does not normally occur during the spring or fall.

## **2.9 Description of Proposed Environmental Management Practices**

In following the format of the application form, the reader is referred to Item 2.8 above, within which the planned mitigation actions have been described, including those pertaining to construction, operation and decommissioning activities. This format has been utilized in order to document the mitigation actions in relationship to the potential environmental impacts to which they relate. In addition there is some further information that we wish to summarize at this point relative to the mitigation process which follows:

- Mitigation for public considerations and consultation conducted
- Mitigation actions relating to the Grass River Provincial Park Management Plan
- Use of the Tolko EMS system to support mitigation actions

### **Compilation of Best Management Practices for Erosion and Sediment Control**

As a member of FP Innovations, FERIC Division, Tolko Industries Ltd. has recently received an up-to-date handbook on erosion and sediment control practices. This handbook has been compiled by FERIC from best management practices (BMPs) across Canada. This handbook is very comprehensive for application to the development and construction of forest roads and stream crossings. The document covers a number of areas including:

- Soil erosion and sediment and how it occurs
- Field identification and planning
- Riparian areas and fish habitat
- Erosion prevention techniques
- Sediment containment techniques
- Practical mitigation procedures
- Culverts
- Clear-span bridges

This document provides the Company with comprehensive resource to complement the processes already developed at Tolko for mitigation of resource values in construction of roads and stream crossings. The document is referenced below:

FP Innovations FERIC. 2007. Erosion and sediment control practices for forest roads and stream crossings: A practical operations guide. Advantage Vol. 9 No. 5. 88 p. It can be obtained from FP Innovations.

### **Public Considerations and Consultation Conducted**

Further to the public consultation process described under Item 2.5.6, it is noted that public input on the operation and future decommissioning of the road will continue through the mechanisms offered by the Company's ongoing Forest Resource Advisory Committee (FRAC) process, annual public meetings in support of our Annual Harvest and Renewal Plan preparation, and the documentation and follow-up of any received concerns from the public through our Public Concerns Table as developed within our SFM system.

As noted earlier in this application, Tolko acknowledges that Manitoba Conservation will need to undertake Crown public consultation with First Nations and/or Aboriginal communities that they view to be potentially affected by this proposed development in order to understand how the proposed development may infringe on the exercise of a Treaty or Aboriginal rights. Should MC require additional information from Tolko in order to support this consultation process, the Company is prepared to assist as required.

### **Review of the Grass River Provincial Park Management Plan**

Further to the assessment of environmental effects of the development and use of the Dickstone South Road and bridge crossing of the Grass River as related to the Grass River Provincial Park Management Plan, the following are the key items that we have identified in terms of any required mitigation:

- a. Tolko has proposed the route for the Dickstone South Road to correspond to the forestry access/utility corridor identified on Map 1 of the park plan in place to allow for resource sector access through the park to timber resources north of the Grass River Park.
- b. Tolko recognizes that a special use conditional approval will be necessary in order to develop the Dickstone South Road in the forestry access/utility corridor. Tolko is prepared to meet with MC to discuss and develop all necessary mitigation for development and use of the road, and to develop a FRDP as is normal practice for all major road development. As described in the park plan, the development of this road within the park may include some special conditions which the Company anticipates will be covered off in the FRDP (and which the mitigation actions listed in this document will contribute to).
- c. Tolko recognizes the high value that is placed upon the Grass River in terms of water quality, fisheries, canoeing and visual values. Design, construction and use of the proposed bridge crossing over the river will reflect these values:

### **Tolko EMS System**

The Company employs an Environmental Management System (EMS) which has been certified to the ISO 14001 standard in managing its woodlands operations. The EMS provides for the use of a number of forms (used to document and track directions provided to contractors), standard operating procedures (SOPs) and operating guidelines (OGs) to achieve compliance with all Manitoba legislation and regulations and to meet the environmental policy of Tolko.

The EMS will be used to assist the Company in meeting requirements for mitigation throughout the development and use of the Dickstone South Road and bridge, including construction, operation and decommissioning. The table below outlines the components of the Tolko Manitoba EMS that will provide support to the Company in mitigating the environmental effects of constructing, operating and decommissioning the Dickstone South Road and the bridge at the crossing of the Grass River:

Tolko Manitoba EMS	
Reference Number	Title/Theme
Forms	
WL001	Contractor Orientation Record (COR)
WL101	Project Tailgate check List
WL201	Operations Inspection Form
Standard Operating Procedures	
MB-SOP-WL032	Road Management Planning
MB-SOP-WL033	Road Construction
MB-SOP-WL050	Working Near Water Bodies
MB-SOP-WL051	Water Crossing
MB-SOP-WL110	Public Consultation
Operational Guidelines	
MB-OG-WL0901	Forest Management Planning & Operating Practices - FMPOP*
MB-OG-WL0903	FMPOP Operators Guide
MB-OG-WL0905	Road & Water Crossing Monitoring
MB-OG-WL0907	Road Maintenance
MB-OG-WL0909	Soil Disturbance Guidelines

\* Only sections applicable to applications are included: Section 5.3 Access Planning, Section 6.1 Road Development and Section 6.4 Road and Crossing Maintenance.

The contractor orientation record (COR – WL001) documents discussions held with each contractor respecting the contractor’s planned operations, including Tolko’s environmental policy, environmental risks and potential impacts of the contractor’s operations, the application of Tolko SOPs and other preventative measures, emergency preparedness plans and the general environmental responsibilities of the contractor.

Through the tailgate check list (WL101) road construction (and future decommissioning) contractors are advised of construction standards and pertinent work permit conditions. In addition, the tailgate check list includes review of any applicable road closure controls, which would be applicable to this operation. Similarly, the contractors operating the wood haul are informed of standards applicable to that phase of the operation (such as any gate/other road closure requirements). Review of non-timber values for the area include other resource users (lodges, cabins, snowmobile trails, etc.), as well as heritage resource values as applicable. Mitigation practices for protection of water and soil resources is discussed and documented as well as spill response and emergency preparedness. Follow-up on these operations is accomplished via the operations inspections process and documented on form WL201.

Operational Guideline MB-OG-WL0901 (FMPOPs Section 6.0) outlines the Company's road construction criteria, including road drainage and erosion protection during road construction projects, slopes to be applied for embankment for borrow pits and gravel pits, and maximum sustained adverse grade and erosion control in ditches (see description under Item 2). The FMPOPs are used by Tolko staff in designing and implementing road construction in order to address soil, water, other resource use and other non-timber values before and during road and water crossing development. Similarly, the Operators Guide (MB-OG-WL0903) provides increased detail to contractors and operators in the implementation of the FMPOPs including direction and guidelines for road development as described earlier under Item 2.8. The road and water crossings monitoring guidelines (MB –OG-WL0905) provide direction for ongoing monitoring of the Dickstone South Road and the Grass River bridge crossing. In addition, the road maintenance guidelines (MB –OG-WL0907) provide for inspections and follow-up actions to maintain erosion control measures in place. The soil disturbance guidelines (MB – OG – WL0909) apply principally to harvest operations; however such guidelines also apply generally to road clearing operations, particularly in proximity to water bodies. Information from each of these operational guidelines has been used in describing our proposed mitigation (see Item 2.8).

A series of specific standard operating procedures (SOPs) have been developed and implemented for particular components of operations to provide for mitigation and control of environmental effects during certain activities. These include road management planning (MB-SOP-WL032) the purpose of which is to ensure that agreement be reached with MC on the road access plan prior to construction proceeding. This SOP includes requirements to address regulatory needs with the Transport Canada (for navigable waters) and DFO (for fisheries values). A public consultation process is required, as described earlier, to provide input to the access management plan. In addition, this standard requires that a decommissioning plan be established, and that the road management strategy be signed off by Tolko and the IRMT. A road construction standard (MB-SOP-WL033), has been developed for the purpose of addressing and reducing the risks of water quality, fish habitat and soil erosion. This SOP contains a series of measures to control risks and minimize effects of road construction activities on soil and water, including those outlined earlier under Item 2.8. An additional standard has been put in place to cover all forest management activities while working near water bodies (MB-SOP-WL050). This standard is in place to maintain a consistent approach from planning through to operations in terms of forest management activities that have potential to affect water and fish habitat, as outlined earlier under Item 2.8. A standard for water crossings has been developed to deal with both the installation and decommissioning of watercourse crossings (MB-SOP-WL051). This SOP provides supporting direction related to prevention of environmental impacts during the bridge construction and will also be applicable for the future decommissioning of the bridge and any other stream crossings that may be needed on the road. Work permits to be developed for the construction of the Dickstone South Road and the Grass River Bridge can include specific direction with reference to provincial guidelines from the IRMT as applicable. No construction or decommissioning activities will commence until a work permit has been issued by MC. MB-SOP-WL032 includes reference to the requirement to develop a FRDP with MC including an access management plan. These SOPs are reviewed with the road and bridge construction and decommissioning contractors and a copy is maintained at the work site.

Public consultation processes, detailed earlier, are identified in the EMS as a key mechanism for providing input to the Company on identification of non-timber values and concerns (MB-SOP-WL110). The public concerns table, initiated in 2004, is maintained as a way to capture public input and to document the manner in which the Company intends to provide for mitigation as appropriate. As part of the public consultation program the Company has addressed road decommissioning in response to public concerns, with increasing focus on this in the past couple of years whereby road decommissioning plans are addressed generally at the annual AOP public meetings. Roads scheduled for closure are also identified each year in the AOP. Road management planning (MB-SOP-WL032) includes a specific element of public consultation to address public concerns and issues, including any related to decommissioning, as part of the development of road access plans for each major road.

The forms, standard operating procedures and operating guidelines from the EMS referenced in this application have been included as Appendix H.

### **3.0 SCHEDULE**

#### **3.1 Construction**

Winter 2008/09:

- Clear the road right-of-way (ROW), with harvest of the road ROW occurring from both the north (via the Chisel Lake rail bed) and from the south (from entry point with PTH 39).
- Application for the water crossing of the Grass River and detailed bridge design with Transport Canada (*Navigable Waters Protection Act*), Department of Fisheries and Oceans (DFO) and MC.
- The bridge will be a clear-span engineered design, anchored to the bedrock to avoid requirements for cribbings.

Summer 2009

- Road construction work occurring from the north and south entry points for a total of approximately 17 kilometres

Fall 2009/Winter 2010

- Bridge construction of the Grass River Crossing

Winter 2010 Onward until Decommissioning

- Operations commencing with use of the Dickstone South Road for deliveries from the operating areas
- Road maintenance operations will be conducted to include road surface grading, spreading road maintenance gravel as needed, snow clearing, drainage maintenance upkeep activities, erosion control upkeep measures, and maintaining line-of-sight as needed for safe operations.

- Road, bridge and culvert inspections, both regular annual inspections, as well as ongoing checks while operations are ongoing; to ensure mitigation actions are in place and safe operating conditions.

Road duration:

- Planned operations will be conducted over a period of 20 years.

Further detail will be provided in the Forest Road Development Plan (FRDP) to be jointly developed with MC following up on approval for this amendment to the FMP. The FRDP will include key items such as road class and lifespan, access control, maintenance and decommissioning. We have attached a template illustrating the detailed information anticipated to be developed and provided in the FRDP (See Appendix I).

It is noted that the above schedule is dependent upon several factor including:

- Timing of receiving government approvals for this project
- Availability of contactors and people available to work in the construction of the road and bridge crossing
- Any subsequent limitations placed on completion of harvest of the operating areas being accessed that may effect the duration of the lifespan of the Dickstone South Road.

### **3.2 Maintenance and Inspections**

The Sustainable Forest Management (SFM) Plan and associated EMS system employed by Tolko includes a performance framework consisting of a number of indicators and targets. A monitoring process is in place to provide for annual reporting of the performance of the Company relative to the targets established in the SFM Plan. This SFM system includes a number of indicators which are relevant to the monitoring of the Dickstone South Road and the associated crossing of the Grass River. The SFM System and related monitoring and reporting processes will include this road and crossing. In particular, annual inspection is conducted on all roads and water crossings to document any concerns and required follow-up. This includes noting any maintenance needed in order to maintain the integrity of the mitigation processes put into place during road construction such as erosion control measures.

Within the EMS, any problem areas that may appear after construction will be identified during the completion of the annual road inspection process (MB-SOP-WL0905) with appropriate follow-up implemented. Road maintenance practices as per MB-OG-WL0907) assist in prevention of impacts, including those to surface and sub-surface drainage through ongoing maintenance practices.

Some examples of SFM system indicators which will have application to monitoring of the Dickstone South Road and crossing include:

- Track any enforcement actions that arise related to soil and water in terms of the condition of roads and related water crossings (Indicator 3.2.1.1.1- access [www.tolkomanitoba.com](http://www.tolkomanitoba.com) for details).

- Inspection/monitoring of roads and crossings for subsequent follow-up within the road maintenance program (3.2.1.1.2).
- Public consultation process captures public input and enables dissemination of information on road development, operation and decommissioning to interested participants, including concerns related to heritage resources and woodland caribou (5.1.3.1.1, 5.2.1.2.1, 6.1.1.2.1, 6.2.1.1.1).
- The Dickstone South Road, as with all major road routes will receive a heritage review assessment as part of the planning process (5.1.4.1.1).
- FRAC process provides mechanism for obtaining input and dissemination of information to resource users, First Nations, and other interested groups through representatives taking part in the process (6.4.1.1.3).
- Annual contractor meeting provides the opportunity for review of key SOPs and guidelines which helps to maintain awareness of the requirement to adhere to the EMS and SFM processes (6.4.1.1.1).

As noted earlier, for additional information on Tolko's SFM system, including the SFM Indicators referenced here, the reader is referred to the Company's forest management and SFM public website at [www.tolkomanitoba.com](http://www.tolkomanitoba.com). The SFM Plan and subsequent updates to indicators is available for viewing on this site.

#### **FUNDING:**

The construction and maintenance of this road will be privately funded by Tolko Industries Ltd. The funding for this project will be made available upon approval.

## APPENDICES

### Appendix A: Maps

Map 1: Proposed Dickstone South Road Development - Grass River Park

Map 2: Alternative Haul routes

### Appendix B: Aerial Photograph Mosaic of Proposed Dickstone South Road Development

### Appendix C: Updated Watercourse Crossing Data Sheet – Grass River Crossing Site

### Appendix D: Heritage Resource Impact Assessment report and recommendations

### Appendix E: 2007 Tolko Public Consultation Related to Application

### Appendix F: Tolko 1997 – 2009 FMP Road Standards (Table 5.2) and Tolko Forest Management Planning and Operating Practices Road Construction Standards (Table 5)

### Appendix G: Photographs illustrating the proposed Grass River Bridge location

### Appendix H: Relevant Tolko Manitoba EMS Forms and Standard Operating Procedures

### Appendix I: Manitoba Conservation - Forest Road Development and Decommissioning Plan (FRDP) Templates