



Government
— of —
Saskatchewan

Ministry of Environment
Forest Service
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PRINCE ALBERT Canada S6V 6G1

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March 28, 2019

File: **10450-55-1-1**

Diane Roddy - General Manager
Sakaw Askiy Management Inc.
219 – 1061 Central Ave
PRINCE ALBERT SK S6V 4V4

Dear Diane:

AQUATIC HABITAT PROTECTION PERMIT # 19/20-PAFMA-SAKAW-AHPP01

Pursuant to Section 38 (5) of the *Environmental Management and Protection Act, 2010* (EMPA), authorization is hereby granted to **Sakaw Askiy Management Inc.** and/or its shareholders to construct, maintain, reclaim road crossings and remove beaver dams/blockages on water courses identified in the Ministry of Environment approved operating plan or as identified on the ground as part of road construction work. This authorization does not release the proponent from obtaining additional approvals that may be required under any federal or provincial legislation.

For any inconsistencies between this approval and stream crossing standards identified in the Forest Operating Standard this approval supersedes and takes precedent over the Forest Operating Standard.

This approval does not exempt the proponent from completing a Department of Fisheries and Oceans (DFO) self-assessment and getting required approvals when operating around Commercial, Recreational or Aboriginal Fisheries (CRA) waters or whereas the work is performed under the jurisdiction of Section 35 of the Federal Fisheries Act.

This Authorization is applicable to activities that are not carried out in accordance to Section 5 of *The Environmental Management and Protection (General) Regulations*.

Information Notes

Information notes have been included in this authorization to provide the authorization holder with further information or direction. Information notes are not part of the legal text of this authorization and are inserted for convenience of reference only.

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Information Note

As per EMPA 2010 and/or The EMPA 2010 General Regulations watercourses are defined as:

EMPA 2010

section (2) (jj) “surface water” means water that is above the surface of land and in a river, stream, lake, creek, spring, ravine, coulee, canyon, lagoon, swamp, marsh or other watercourse or water body, whether the water is there permanently or intermittently;

EMPA General Regulations 2010

Section (4)(c) “intermittent watercourse” means a watercourse that normally does not experience year-round flow, and includes ephemeral streams that are usually inundated during spring snow melt or following a heavy rain event;

Section (5)(e) “watercourse” includes a gully, valley floor, drainage ditch or any other channel, including any artificial channel, in which water flows either permanently or intermittently.

General Conditions:

- 1) Work to be performed under dry or low in-stream flow conditions unless deemed as an emergency re-installation. Under this circumstance, the Area Forester must be notified as soon as possible that the work is occurring.
- 2) Area and severity of disturbance for installation and maintenance shall be minimized.

Information Note

Minimize is defined as: to leave an impact that a reasonable person would consider appropriate for said activity.

- 3) The contractor(s) / operator performing the work must be given a copy of this authorization and it must be kept on site to ensure that all authorization conditions are met.
- 4) Fuel, oils, or lubricants shall not be stored / staged as per The Saskatchewan Environmental code and/or standards.
- 5) No machinery shall be cleaned or refueled within 100 meters of any water body / water course. Waste water containing oils, fuels or grease generated from cleaning equipment must be kept from contaminating soils, plant material and/or water.

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- 6) Machinery is to be cleaned and free of external grease and/or oil and any material that may hold or harbour exotic species, their seeds, eggs, or plant material from exotic species.
- 7) Crossing ledgers, reports, records or other relevant crossing information must be supplied upon request.
- 8) All rock used for rip rap, armament, gabions or retaining walls shall be free of deleterious substances including; sand, silt, loam, clay or any other debris or other deleterious materials.
- 9) Rock originating from upstream and downstream areas of the bed or bank of the water course shall not be used for any construction purpose.
- 10) All associated spills, construction materials, and debris (e.g., petroleum products, non - natural materials) must be immediately handled as per The Saskatchewan Environmental Code.
- 11) Any direct or indirect release of deleterious material including; oils, fuels, silt, sand, loam and/or clay, etc. into water or where its release will likely enter water that has an adverse effect or is likely to have an adverse effect on water quality or aquatic habitat must be reported to the Provincial Spill Line at 1-800-667-7525 as per Section 35 of *The Federal Fisheries Act* and The Saskatchewan Environmental Code.
- 12) All spoil materials and debris remaining from construction, maintenance, reclamation or removal activities shall immediately be placed above the high water mark in a location where they will not be subject to erosion into any waterbody.
- 13) In-stream work with crossings shall be limited to the placement of new piles or one-time crossing of equipment for installation. Silt curtains must be used when in-stream work is being done. Once work is completed approaches shall be stabilized with non-erodible materials.
- 14) Portable bridges shall free span the full width of the stream, with sills located beyond the stream's natural bank (not in water).
- 15) The Area Forester and/or Forest Ecological Protection Specialists will be notified in writing a minimum of 4 days, prior to commencement and completion of any in-stream work. This applies to new construction and reclamation of crossings except for ephemeral or intermittent water courses.

Information Note

Notification, as stated in condition 15, is to include all of the informational requirements as set out in conditions 20, 21, 22, 32 and 33 below.

16) The Area Forester may amend this authorization, as deemed necessary for the protection of habitat, stream banks, bed and channel.

Crossing Maintenance Conditions:

17) The responsible licensee and shareholder will semi-annually inspect crossings (spring & fall) and carry out maintenance work if necessary, for the duration that the water crossing is in place. Inspections should include but not limited to; maintenance and prevention (blockages, damage, erosion control and underpinning), the assurance of crossings safety, and crossing function.

18) Bridge or culvert cleaning including but not limited to; bridge deck cleaning, beaver dam, ice or other blockage material removal may be undertaken at any time through to the expiration of this permit.

19) A monthly report summarizing all water crossing maintenance will be submitted to the Area Forester within 30 days after the month in which the maintenance was completed. The report shall include the following information:

- i) name of road (or operating area)
- ii) UTM location
- iii) name of water course (if unnamed, state as such)
- iv) type of maintenance
- v) crossing permanency (i.e. seasonal, temporary or permanent)
- vi) start and completion dates of work
- vii) name of project supervisor

Crossing Installation Conditions:

Information Note

Applies to all crossings that fall outside of section 5 (b) of the Environmental Management and Protection General Regulations.

20) Unless the responsible licensee and/or shareholder can specifically demonstrate (supply sections) that the following information is within an Environmental Impact statement or assessment (EIS), Forest Management Agreement (FMA) or Forest Management Plan (FMP) or operating plan, they must prior to crossing installation for the below listed crossing situations, provide to the Area Forester information: respecting potential adverse effects to fish and wildlife species, vegetative cover, landforms, soil types and water bodies/water courses that are likely to be affected by the crossing installation.

- Crossings that require submission under this condition
 - All CRA watercourses or intermittent creeks and tributaries within 1km of a CRA, excluding ephemeral creeks that are dry or frozen at the time of installation
 - All mapped watercourses identifiable on a 1:12,500 or 1:15,000 maps
 - All water courses with defined channels at crossing site that are identified during planning / harvesting operations
 - Crossings that do not require submission under this condition
 - Drainages (cross drains) not meeting the above requirements
 - Winter crossings where no imbedded culvert installation or dirt work occurs
 - mapped water courses subsequently found not to be a watercourse during site visit shall be documented and kept on file and made available upon request)
- 21) Unless the responsible licensee and/or shareholder can specifically demonstrate (supply sections) that the following information is within an operating plan, they must prior to crossing installations for crossing situations as identified in condition 20 above, provide to the Area Forester information respecting:
- i) name of road (or operating area)
 - ii) UTM location
 - iii) name of water course (if unnamed, state as such)
 - iv) type of crossing (include number and size of culverts)
 - v) permanency (i.e. seasonal, temporary (winter only) or permanent)
 - vi) estimated start and completion dates of work
 - vii) name of project supervisor
- 22) Unless the responsible licensee and/or shareholder can specifically demonstrate (supply sections) that the following information is within an EIS, FMA, FMP or operating plan they must, prior to crossing installations for crossing situations as identified in condition 20 above, provide to the Area Forester proposed measures to mitigate or prevent any potential impact of the proposed installation on aquatic and/or riparian habitats, including erosion and/or sediment control plans. If the responsible licensee and/or shareholder wants to use their own standard operating procedures (SOPs) or best management practices (BMPs) to address the requirements they must supply SOPs/BMPs for approval in the operating plan.

Information Note

Condition 22 only limits reporting to the Area Forester, not the mitigation measures themselves being conducted.

- 23) Fall and winter installations of permanent structures (i.e., longer than 1 winter season) shall utilize non-frozen earthen fill for compaction purposes.
- 24) Culverts will be embedded below the natural channel bed by a depth equivalent to at least 20% of the culvert diameter.
- 25) Both the inlet and outlet shall be immediately protected from erosion and/or scouring with non-erodible materials e.g., rock rip rap, slash, matting, fabric, etc.
- 26) Pre-install site conditions for channel alignment, elevation and size (depth and width) shall be maintained.
- 27) Side slopes and back slopes associated with crossing installations/reinstallations shall be no greater than 2:1 and will be stabilized immediately by re-establishing vegetation and reforesting the disturbed area with species that are representative of pre-harvest site conditions and plant communities, clean rock riprap, ditch blocks, silt fencing, planting, slash spreading, erosion control blankets or a combination thereof to achieve long term erosion control.
- 28) All culverts shall be installed to maintain and conform to existing stream gradients and flows.

Crossing Reclamation:

- 29) Old culverts and/or construction materials shall be removed from the site to an approved landfill site or the responsible licensee and/or shareholder's storage facility by December 1st of each year.
- 30) Unless otherwise authorized, all crossing reclamation requires the site to be returned to a state consistent with the undisturbed channel, bank and boundary upstream and downstream from the crossing installation.
- 31) Restored sites must approximate the channel alignment and be re-established to the elevation, size (depth and width) and substrate of the pre-install site conditions of the watercourse.

- 32) Unless the responsible licensee and/or shareholder can specifically demonstrate (supply sections) that the following information is within an operating plan, they must prior to crossing reclamation for crossing situations as identified in condition 20 above, provide to the Area Forester information respecting:
- i) name of road (or operating area)
 - ii) UTM location
 - iii) name of water course (if unnamed, state as such)
 - iv) type of crossing (include number and size of culverts)
 - v) estimated start and completion dates of work
 - vi) name of project supervisor
- 33) Unless the responsible licensee and/or shareholder can specifically demonstrate (supply sections) that the following information is within an EIS, FMA, FMP or operating plan they must, prior to crossing reclamation for crossing situations as identified in condition 20 above, provide to the Area Forester proposed measures to mitigate or prevent any potential impact of the proposed reclamation on aquatic and/or riparian habitats, including erosion and/or sediment control plans. If the responsible licensee and/or shareholder the wants to use their own SOPs or BMPs to address the requirements they must supply the SOPs/BMPs for approval in the operating plan.
- 34) All disturbed shoreland shall be stabilized immediately by re-vegetating right of ways including road driving surfaces by re-establishing vegetation and reforesting the disturbed area with species that are representative of pre-harvest site conditions and plant communities. When re-vegetating exposed soils to reduce the likelihood of erosion and sedimentation, clean rock riprap, ditch blocks, silt fencing, planting, slash spreading, erosion control blankets or a combination thereof to achieve long term erosion control.

Information Note

In addition to “Native Species Recommended for Site Restoration within the Mid-Boreal Upland, Mid-Boreal Lowland and Boreal Transition EcoRegions of Saskatchewan” (Adam L. Kosowan and Jim R. Smith in January, 2004), other resources may be used to assist in determining the appropriate species for a site and seed source availability.

- 35) If crossing stabilization is not successful, the proponent shall monitor and continue to employ acceptable means of stabilization until banks become stable. (This does not apply if a third party has caused damage that would affect / or has affected the stabilization).
- 36) All fill material removed from crossings shall immediately be placed above the high water mark in a location where the material will not be subject to erosion into any water body or water course.

Temporary Crossings (winter only)

- 37) Subject to section 39, Snow and/or ice crossings with or without culverts will consist of clean snow and/or ice only. **No earthen fill, debris or logs, shall be used.**
- 38) Temporary crossings utilizing culverts do not require the culvert to be imbedded.
- 39) If logs are to be used in any temporary winter crossing, they must be limbed and cabled together. Logs must be scaled (if being utilized) or estimated in accordance with provisions of the proponents approved scaling plan (if being left as slash).
- 40) Temporary crossings must be removed prior to **March 31st, 2020**. If only ice and/or snow were used in crossing construction, removal shall be done in a manner that will ensure that water flow will not be impeded. Where cabled log bundles were used in the crossing, all logs must be fully removed from the crossing, unbundled and utilized or disposed of as slash.
- 41) After removal/reclamation of a temporary crossing the responsible licensee and/or shareholder shall provide to the Area Forester information respecting:
- i) name of road (or operating area)
 - ii) UTM location
 - iii) name of water course (if unnamed, state as such)
 - iv) type of crossing (include number and size of culverts)
 - v) start and completion dates of work
 - vi) name of project supervisor

Tolko Temporary Crossing Trial (winter only)

- 42) Tolko is approved to install up to 6 temporary crossings using culverts, log fill, geotextile and dirt fill to the following specifications:
- This approval only applies to crossings under the install administration of Tolko Industries Ltd. covered by the Sakaw AHPP and Tolko assumes liability for the crossings.

- Locations of the trial crossings must be provided to the appropriate Ministry of Environment staff prior to install.
- The trial must only occur on small permanent streams, intermittent streams, ephemeral streams or open water areas associated with floodplains.
- Unless otherwise approved, streams must be more than 1 km away from a CRA unless it is a dry ephemeral or floodplain without water.
- This trial must only occur on a class 3 or 4 road.
- A culvert is to be placed in the channel which is not required to be imbedded.
- Logs can be used to fill in around the culvert – logs are not required to be cabled but must extend out beyond both sides of the extent of the dirt fill.
- Geotextile placed immediately over the logs – geotextile must extend out beyond both sides of the extent of the dirt fill.
- Dirt fill may be placed on top of geotextile and must not extend beyond the geotextile and logs.
- The appropriate Ministry of Environment staff must be notified in advance of the install.
- The appropriate Ministry of Environment staff must be notified in advance of the reclamation.
- A joint site visit is required once the crossings have been removed and spring thaw has occurred.
- Temporary crossings installed under this trial must be removed and reclaimed by March 31, 2020 or spring thaw whichever comes first.

Information Note

This authorization does not negate or replace any other authorizations required pursuant to any other Provincial or Federal legislation especially that of *The Federal Fisheries Act and/or The Wildlife Regulations for the removal or destruction of nuisance wildlife (Beavers)*.

This permit expires March 31st, 2020. If you have any questions, please call me at 306-953-2879.

Yours sincerely,

Signature Redacted for Privacy



Area Forester – FMA
Forest Service
