

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 1 of 2

Environmental Management System

1.0 Purpose:

To ensure any specific requirements are followed for forest operations regarding the two types of aggregate pits 1) Forestry Aggregate Pits (formerly category 14) or 2) Category 9 Aggregate Pits, and to the the consistent construction and reclamation of aggregate pits and that aggregate operations adhere to:

- The Aggregate Resources Act;
- The Aggregate Resources of Ontario Provincial Standards; or
- The Forestry Aggregate Pit sections of the Forest Management Planning Manual for Ontario's Crown Forests, MNR 2009.

1.0 Scope:

This procedure applies to all Contractors and Sub-Contractors for Obishikokaang Resources (ORC) and Overlapping License Holder (OLLs) or Designates that establish the two types of aggregate pits 1) Forestry Aggregate Pits (formerly category 14) or 2) Category 9 Aggregate Pits.

2.0 Responsibilities:

3.1 ORC Operations Forester or Designates

3.2 Domtar Operations Forester Contractor or Designates (Domtar)

3.3 All Contractors and Sub-Contractors for ORC and OLL

3.4 Overlapping License Holder or Designates (OLL)

3.5 All ORC Staff and Contractors involved with aggregate removal from Forestry Aggregate Pits or Category 9 Aggregate Pits for the purpose of:

- road construction;
- road maintenance;
- sanding operations;
- surfacing and resurfacing of roads;
- watercourse crossing installations and maintenance;
- any other aggregate extraction.

2.1 Procedure for Forestry Aggregate Pits:

- Follow procedures as outlined in Appendix 1 and Appendix 2 at the end of this document as per FMPM, 2009. This includes the FMP-19 conditions on Road Crossings, Landings and Forestry Aggregate Pits in Areas of Concern (Part C. Forestry Aggregate Pits).
- Follow procedures as outlined in Conditions on Roads, Landings and Aggregate Pits that are not in areas of concern as per the main text of the latest Forest Management Plan. For the Lac Seul Forest Phase II 2016-2021 FMP this is located in Section 8.5.2.1 Conditions on Roads, Landings and Aggregate Pits.

CONTROLLED DOCUMENT *Users must ensure copy is current.*

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 2 of 2

Environmental Management System

All Contractors, Overlapping Licensees and ORC Staff are to maintain and record for purposes of reporting in the Annual Report. The reports will be submitted by January 31 of each year. The report will contain the following information:

- Unique aggregate pit identifier
 - Location of pit/ UTM Coordinate
 - Pit opening date
 - Tonnes Removed
 - Area requiring rehabilitation (ha)
 - Area rehabilitated (ha)
 - Date rehabilitation completed or forecast of completion or required next year
- **ORC Operations Forester or Designates** will on an annual basis enter the location and establishment date of new or approved Forestry Aggregate pits into GIS.
 - **ORC Operations Forester or Designates** will on an annual basis delete the location and establishment date of old or unapproved Aggregate Forestry pits out of GIS

3.0 Definitions and Procedure

3.1 Definitions:

- 3.1.1 Forestry Aggregate Pits (formerly category 14)** - Allow for extraction of aggregate only without a permit provided extraction is for forest operations on Crown land under an approved Forest Management Plan (FMP) in accordance with:
- 3.1.1.1** the criteria defined in the *Forest Management Planning Manual for Ontario's Crown Forests, MNR 2009* (FMPM Sec 1.3.6.6 Forestry Aggregate Pits p A-60)- see Appendix 1 at the end of this document.
 - 3.1.1.2** Operational Standards for Forestry Aggregate Pits (FMPM Appendix VII p APP-23)- see Appendix 2 at the end of this document.

Procedure:

1. All Contractors and Sub-Contractors for ORC and Overlapping License Holder (OLs) or Designates must follow the policies and procedures set out in their company's own Aggregate Pits SOP where that SOP meets or exceeds legal requirements and the requirements set out in the ORC Resources SOP. In the absence of a company's own SOP the following practices must be followed:

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 3 of 2

Environmental Management System

Procedural Documentation **Aggregate Pits**

2. All Contractors and Sub-Contractors for ORC and Overlapping License Holder (OLLs) or Designates will follow the best management practices identified below in addition to any conditions associated with a specific aggregate extraction area.
3. Extraction of aggregate is completed within 10 years from commencement of the pit.
4. Located within a Primary or Branch corridor; or an area of operations; or an Operational Road Boundary; or an Aggregate Extraction Area located within 500m of an existing forest access road, as shown on the “operations map” in the FMP and is included in the AWS.
5. Previously operated Forestry Aggregate Pits may be used for the 10 year period from its initial origin, as long as it remains in the road corridor or area of operations identified in the AWS at the time of establishment.
6. Aggregate is extracted:
 - a. no closer than 1.5 m above the established groundwater table; or
 - b. closer than 1.5 m above the established groundwater table if:
 - I. the proposed site is remote or isolated; and
 - II. the excavation limit of the site is not within;
 - 500 m of a coldwater stream
 - 1,000 m of a water well, whether dug or drilled; and
 - 5,000 m of a receptor;
7. Topsoil and overburden, where present, must be stripped and stored on site.
8. Aggregate material may be removed only within areas where access, harvest, renewal, or aggregate extraction has been planned and approved, with no removal occurring within 15 metres of the boundary of any planned area.
9. Aggregate material must not be removed from an area of concern or within 15 metres of the boundary of an area of concern.
10. When operating within 15 metres of a proposed roadside ditch, no excavation is to take place below the elevation of the planned depth of the proposed ditch; all excavations must be immediately sloped to no steeper than a 2:1 (horizontal: vertical) angle.

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 4 of 2

Environmental Management System

Procedural Documentation **Aggregate Pits**

11. During extraction, no undercutting of the working face is permitted and:
 - the working face must be sloped at the angle of repose; or
 - the vertical height of the working face must not be more than 1.5 metres above the maximum reach of the equipment.

12. All trees within 5 metres of the excavation face must be removed.

13. The maximum disturbed pit area (harvested area including excavation area) must not exceed 3 ha. When a pit or a portion of a pit is rehabilitated (silviculturally treated), it is no longer part of the pit.

14. When the site is inactive, all pit faces must be sloped at the angle of repose.

15. Within the excavation area, no ponding is allowed and offsite drainage must be designed to prevent sediment from entering any water feature.

16. Unless an aggregate permit (e.g. Category 9) has been issued, by the end of the 10-year period starting from the commencement of the Forestry Aggregate Pit:
 - buildings, structures, or processing equipment must be removed from the site; and
 - rehabilitation of the site must be completed.

17. Final rehabilitation must include:
 - sloping of all pit faces to a minimum of 3:1(horizontal: vertical);
 - re-spreading of any topsoil and overburden that was stripped from the site; and
 - mitigative measures, to the satisfaction of MNR, to prevent erosion (e.g. establishment of vegetation).

18. Progressive rehabilitation of the site must be ongoing during the 10-year period, starting from the commencement of the Forestry Aggregate Pit.

19. All tonnage removed must be reported to the ORC office immediately after equipment is removed from the pit and it becomes inactive.

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 5 of 2

Environmental Management System

Procedural Documentation **Aggregate Pits**

17. Category 9 pits do not allow blasting or the creation of a quarry. If blasting is necessary apply for a Category 11 pit.

18. No excavation can occur within the excavation setback.

19. Operations within a Category 9 pit must be in compliance with the site plan.

3.1 Definitions:

3.1.2 Category 9 Aggregate Pits - Any area where aggregate is extracted under an approved and active Permit and its associated conditions through the Ministry of Natural Resources and Forestry (MNRF) and the Ontario Resources Aggregate Center (TOARC). Category 9 pits do not allow blasting or the creation of a quarry.

3.1.3 Both types of pits allow for extraction of aggregate only (i.e. no blasting or quarrying of bedrock). If blasting is necessary, required refer to the *Aggregate Resources of Ontario Provincial Standards* and apply for a Category 11 pit.

3.2 Procedure for Category 9 Aggregate Pits:

- **All Contractors, Overlapping Licensees and ORC Staff** are to maintain annual Summary Reports of all pits they have operated in on the management unit. The Summary Report will contain the following information:
 - Unique aggregate pit identifier
 - UTM Coordinates
 - Tonnes Removed
- **All Contractors, Overlapping Licensees and ORC Staff** are to ensure the following is completed for Category 9 permitted aggregate pits:
 - Submit completed compliance inspection reports to MNRF by September 30th each year as per the *Guide to The Compliance Assessment Report For Licensees* (see <http://www.toarc.com/permits-licenses/prod-rep-handbook.html>).
 - Pay permit fees to The Ontario Resources Aggregate Center (TOARC) by end of February annually.
 - Submit completed production reports to TOARC by January 31st each year.
 - Maintain TOARC records for a 7-year period (see <http://www.toarc.com/permits-licenses/prod-rep-handbook.html>).

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 6 of 2

Environmental Management System

Procedural Documentation **Aggregate Pits**

- Pits are rehabilitated prior to closure.
- The **ORC Silviculture Forester or Designates** is provided a schedule of pits that are eligible for planting a minimum of 1 growing season prior to the required pit closure date.
- **All Contractors, Overlapping Licensees and ORC Staff** are to utilize the Category 9 Aggregate Pit Provincial Standards including Section 1.0 Site Plan Standards and Section 2.0 Reporting Standards (see: http://files.ontario.ca/environment-and-energy/aggregates/provincial-standards/mnr_e000034.pdf).

Additionally, **All Contractors, Overlapping Licensees and ORC Staff** are to pay particular attention to Section 5.0 Operational Standards that Apply to Aggregate Permits and Section 6.0 Compliance Reporting:

6.1 every permittee must annually complete Form #590 known as the Compliance Assessment Report with respect to their compliance with the Act, regulations, operational standards, site plan and the conditions of the permit;

6.2 every permitted site must be assessed pursuant to section 40.1(1) of the Aggregate Resources Act once during the period May 1 to September 15 of each year;

6.3 the permittee shall ensure that a copy of the Compliance Assessment Report Form #590 is received by the local office of the Ministry of Natural Resources, and the clerk of each regional municipality or county and the local municipality in which the site is located, no later than September 30 of each year; Category 9 permitting fees are due annually on January 31.

- **ORC Operations Forester or Designates** will on an annual basis enter the location and establishment date of new or approved Forestry Aggregate pits into GIS.
- **ORC Operations Forester or Designates** will on an annual basis delete the location and establishment date of old or unapproved Aggregate Forestry pits out of GIS.

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 7 of 2

Environmental Management System

Appendix 1 - Section 1.3.6.6 Forestry Aggregate Pits (FMPM, 2009 p A-60)

By regulations under the Aggregate Resources Act, a person engaged in forest operations on Crown land is exempt from subsection 34(1) of that Act, as amended from time to time (i.e., the requirement for an aggregate permit to operate a pit), if the criteria set out in this Forest Management Planning Manual are satisfied. Those criteria are the following:

- *A Forest Management Plan (FMP) for the management unit has been approved;*
- *The aggregate is required for a forest access road in a management unit;*
- *Aggregate is extracted:*
 - (a) no closer than 1.5 metres above the established groundwater table; or*
 - (b) closer than 1.5 metres above the established groundwater table if:*
 - (i) the proposed site is remote or isolated; and*
 - (ii) the excavation limit of the site is not within:*
 - *500 metres of a coldwater stream;*
 - *1000 metres of a waterwell, whether dug or drilled; and*
 - *5000 metres of a receptor;*
- *Aggregate extraction will be completed within 10 years from the commencement of the pit; and*
- *The pit is or has been established within:*
 - (a) An approved new primary or branch road corridor in the Forest Management Plan and the Annual Work Schedule;*
 - (b) An approved area of operations in the Forest Management Plan and in the Annual Work Schedule;*
 - (c) An approved operational road boundary in the Forest Management Plan and in the Annual Work Schedule; or*
 - (d) An approved aggregate extraction area in the Forest Management Plan and in the Annual Work Schedule that is located within 500 metres of an existing forest access road.*

Aggregate pits that satisfy these criteria are hereafter referred to as “Forestry Aggregate Pits”.

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 8 of 2

Environmental Management System

Appendix 2 - Appendix VII: Operational Standards for Forestry Aggregate Pits

The following operational standards apply to the extraction of aggregate resources for Forestry Aggregate Pits:

- 1. Topsoil and overburden, where present, must be stripped and stored on site.*
- 2. Aggregate material may be removed only within areas where access, harvest, renewal, or 9 aggregate extraction has been planned and approved, with no removal occurring within 15 metres of the boundary of any planned area.*
- 3. Aggregate material must not be removed from an area of concern or within 15 metres of the boundary of an area of concern, except:*
 - a. for a cultural heritage landscape or historic Aboriginal value, as defined in the Forest Management Guide for Cultural Heritage Values, if,*
 - i. FMP-19 of the forest management plan documents conditions on location, construction or use of the Forestry Aggregate Pit, as per the advice of a qualified individual as defined by the Forest Management Guide for Cultural Heritage Values, and*
 - ii. the aggregate material is removed in accordance with such conditions; and*
 - b. for all other values, if,*
 - i. FMP-19 of the forest management plan documents conditions on location, construction or use of the Forestry Aggregate Pit, and*
 - ii. the aggregate material is removed in accordance with such conditions.*
- 4. Notwithstanding standard 3 above, aggregate material must not be removed from an area of concern or within 15 metres of the boundary of an area of concern for the following values, as defined in the Forest Management Guide for Cultural Heritage Values:*
 - a. archaeology site;*
 - b. cemetery; or*
 - c. archaeological potential area.*
- 5. When operating within 15 metres of a proposed roadside ditch, no excavation is to take place below the elevation of the planned depth of the proposed ditch; all excavations must be immediately sloped to no steeper than a 2:1 (horizontal: vertical) angle.*
- 6. During extraction, no undercutting of the working face is permitted and:*

Tier 2
ORC-2PR_810-D-17
Revision Original
Page 9 of 2

Environmental Management System

Procedural Documentation **Aggregate Pits**

- a. the working face must be sloped at the angle of repose; or*
 - b. the vertical height of the working face must not be more than 1.5 metres above the maximum reach of the equipment.*
- 7. All trees within 5 metres of the excavation face must be removed.*
- 8. The maximum pit area must not exceed 3 ha. When a pit or a portion of a pit is rehabilitated, it is no longer part of the pit.*
- 9. When the site is inactive, all pit faces must be sloped at the angle of repose.*
- 10. Within the excavation area, no ponding is allowed and offsite drainage must be designed to prevent sediment from entering any water feature.*
- 11. Unless an aggregate permit (e.g. Category 9) has been issued, by the end of the 10-year period starting from the commencement of the Forestry Aggregate Pit:*
 - a. buildings, structures, or processing equipment must be removed from the site; and*
 - b. rehabilitation of the site must be completed.*
- 12. Notwithstanding standard 11 above, MNR may direct that a Forestry Aggregate Pit be rehabilitated prior to the end of the above-noted 10-year period where the responsibility for the road and associated Forestry Aggregate Pit is being transferred back to MNR.*
- 13. Final rehabilitation must include:*
 - a. sloping of all pit faces to a minimum of 3:1(horizontal: vertical);*
 - b. re-spreading of any topsoil and overburden that was stripped from the site; and*
 - c. mitigative measures, to the satisfaction of MNR, to prevent erosion (e.g. establishment of vegetation).*
- 14. Existing or proposed Forestry Aggregate Pits within areas of concern, or in the vicinity of features that are addressed by conditions on operations, as described in MNR's forest management guide(s) relating to conserving biodiversity at the stand and site scales, must not be constructed or operated except in circumstances as identified in the conditions on operations in the forest management plan. This includes any restrictions on the construction of new Forestry Aggregate Pits and timing of aggregate extraction, rehabilitation, or other associated operations in existing pits.*

Environmental Management System

Procedural Documentation **Aggregate Pits**

15. Progressive rehabilitation of the site must be ongoing during the 10-year period, starting from the commencement of the Forestry Aggregate Pit.

References

Document / Form	I.D.#

Revisions

#	Purpose	Prepared by	Approved by	Date
N/A	Original version	EMS Team	Chantal Alkins Certification Coordinator	November 23, 2016
A				
B				
C				
D				
E				