

Introduction- Category 10

These Standards¹ have been developed to support the Aggregate Resources Act as amended by Bill 52, the Aggregate and Petroleum Resources Statute Law Amendment Act, 1996. There are three main headings:

- 1) Licences - subdivided into eight categories with respect to Class 'A'. Class 'A' licence is to remove more than 20,000 tonnes of aggregate annually and a Class 'B' is to remove 20,000 tonnes or less of aggregate annually;
- 2) Aggregate permits - subdivided into six categories; and
- 3) Wayside Permits - one category.

These categories were developed to provide more concise, user friendly and understandable minimum requirements for the delivery of the Aggregate Resources Act.

Each category has a template of six major topics and all categories are developed to be proponent driven. The proponent will refer to the appropriate categories depending on the type of undertaking being contemplated. The reason for 15 categories is to reflect the numerous types of applications that can be applied for. In order to accomplish an easy-to-follow format, the standards and categories are repetitive in some cases or have slight modifications between categories based on whether the application is for a pit or quarry, and whether extraction will occur above or below the water table.

The enabling authority in Bill 52 allows for six major topic areas to be reflected in the standards. They are:

- ◆ Site Plan Standards;
- ◆ Report Standards;
- ◆ Prescribed Conditions;
- ◆ Notification and Consultation;
- ◆ Operational Standards; and
- ◆ Annual Compliance Reporting.

Each category includes Site Plan Standards, Report Standards, Prescribed Conditions and Notification and Consultation. Operational and Compliance Standards for all categories are found at the back of this document.

Site Plan Standards

These standards have been developed to reflect the type of undertaking: application for a licence (pit vs. quarry) or aggregate permit (pit vs. quarry). The site plan requirements are all encompassing for each category and no additional information will be required.

¹ These standards will apply only to sites which go through the licensing or permitting process subsequent to the proclamation of Bill 52. The exceptions are the Annual Compliance Report requirement and compliance with Operational Standards which will apply to existing licences and permits.

Report Standards

The report standards have two components: a summary statement and technical reports. All categories of applications are required to submit these reports. The author of these reports may be:

- 1) the applicant for summary statements where the applicant possesses the qualifications or experience; and
- 2) qualified individuals for the technical reports.

For very unique issues on a site specific basis, additional information to that identified in the Report Standards may be requested.

Prescribed Conditions

The prescribed conditions are conditions that pertain to the individual category and cannot be varied or rescinded by either the Minister or the Ontario Municipal Board. However, on a site-by-site basis, additional conditions can be attached to the licence or site plan at the discretion of the Board or Minister, however, these conditions do not form part of the prescribed conditions.

Notification and Consultation

These standards identify the required steps for a proponent to process an application once an application has been accepted by the Ministry. It will be a requirement of the applicant to ensure that all aspects of the standards have been met. Ministry staff will no longer be facilitating and guiding proponents through the process.

Operational Standards

These standards identify the day-to-day operational requirements that are not part of an existing site plan. If the site plan requirements already deal with the same factors but in a different way, the site plan provision prevails over these operational standards.

Annual Compliance Reporting

These standards place the responsibility of reporting non-compliance items and remedial work on the licensee and permittee to self-assess their operation on a yearly basis. The information gathered will be evaluated by the Ministry of Natural Resources to ensure compliance is being achieved. Although the "Guide to Completion of the Assessment Report" is not part of the standards, it is advisable to read this guide in order to assist in the completion of the assessment report.

Terminology & Definitions

For the purpose of these standards reference should be made to the Provincial Policy Statement (Revised February 1, 1997) issued under Section 3 of the Planning Act for definitions and terms used in the Natural Environment Level 1 and 2 and Archaeology Resources Stage 1, 2 and 3.

Established Groundwater Table

For unconsolidated surficial deposits, the groundwater table is the surface of an unconfined water-bearing zone at which the fluid pressure in the unconsolidated medium is atmospheric. Generally the groundwater table is the top of the saturated zone.

For confined water bearing zones or consolidated bedrock materials, the groundwater table, or potentiometric surface, is a level that represents the fluid pressure in the water bearing zone and is generally defined by the level to which water will rise in a well.

Sensitive Receptor

Includes residences or facilities where people sleep (nursing homes, hospitals, trailer parks, camping grounds, etc.); schools; day-care centres.

Mitigate

To alleviate, moderate or reduce the severity of impacts.

Recommended References

When applying for a licence or aggregate permit and depending on the location of the proposed site, the applicant may wish to pre-consult with the affected agencies that will be involved.

In searching and/or preparing reports to accompany an application, reference should be made to the following documents and agencies:

- a) Provincial Policy Statement and Associated Training Manuals;
- b) Zoning by-law(s);
- c) Official Plan(s);
- d) Environmental Protection Act;
- e) Ontario Water Resources Act;
- f) Conservation Authorities Act;
- g) Niagara Escarpment Commission;
- h) Guide to Completion of the Compliance Assessment Report for licences and aggregate permits;
- i) Flow chart for the Notification and Consultation Standards for licences, aggregate permits, wayside permits, Category 13 and the annual compliance reporting;
- j) MOEE Guidelines including:
 - MOEE Guideline NPC-205, Sound Level Limits for Stationary Sources in Class 1 & 2 Areas (Urban);
 - MOEE Guideline NPC-232, Sound Level Limits for Stationary Sources in Class 3 Areas (Rural);
 - MOEE Guideline NPC-233, Information to be Submitted for Approval of Stationary Sources of Sound;
 - MOEE Guideline NPC-119, Blasting.
- k) Provincial and Federal references to endangered species;
- l) Federal Fisheries Act and Associated Guidelines;
- m) Environmental Assessment Act and Exemptions.

For further enquiries, please contact:

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Aggregate and Petroleum Resources Section
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Peterborough, Ontario K9J 8M5
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Application Standards for

Category 10: Aggregate Permit for a pit operation which intends to extract aggregate material from below the established groundwater table.

- ◆ Application Standards
 - ◇ Site Plan Standards
 - ◇ Report Standards
- ◆ Prescribed Conditions
- ◆ Notification and Consultation Standards

Category 10

1.0 Site Plan Standards for Below Groundwater Extraction of Pit Operations

The site plan accompanying an application for an aggregate permit which intends to extract aggregate material from below the established groundwater table must show the required information on the site plan. Two (2) copies of the site plan and reports must be submitted with the application. The site plan can be prepared by the applicant or any other person.

Any reference to the Ministry of Natural Resources shall be deemed to refer to the Ministry of Transportation for those permits that the Ministry of Transportation issues under subsection 37(1) of the Aggregate Resources Act.

- 1.1 each drawing must be numbered and indicate the total number of drawings submitted (e.g. 1 of 4), if more than one drawing;
- 1.2 a key map showing the location of the pit site;
- 1.3 in an organized township or municipality a general description of the site by lot, concession, geographic township, regional municipality or territorial district;
- 1.4 in an unorganized township the use of Universal Transverse Mercator (UTM) coordinates can be used;
- 1.5 a scale reference using both ratio and graphic methods between a scale of 1:1000 and 1:5000;
- 1.6 applicant's name, address and signature;
- 1.7 a statement that "this site plan is prepared under the Aggregate Resources Act for an Aggregate Permit, Category 10";
- 1.8 signature of a person under whose direction this plan was prepared, if different from applicant;
- 1.9 north arrow, normally pointing towards the top of the page;
- 1.10 a section for recording site plan amendments;
- 1.11 a legend or all site plan symbols must be clearly identified;
- 1.12 the boundary of the area to be permitted, including the dimensions, bearings or coordinates and hectareage of the site;
- 1.13 demarcation of the lot and concession lines;

- 1.14 identification of private land and other lands in which tenure has been granted by the Crown within 120 metres of the site;
- 1.15 the use and existing zoning of land on or within 120 metres of the site;
- 1.16 the topography of the site, illustrated by two metre contour intervals or spot elevations referenced to a permanent benchmark on the site;
- 1.17 the location and use of all buildings and other structures existing and proposed on or within 120 metres of the site;
- 1.18 the location of every existing and proposed entrance to and exit from the site;
- 1.19 existing and proposed surface water drainage and drainage facilities on and within 120 metres of the site;
- 1.20 the location of existing and proposed tree cover (i.e. wood lots and hedgerows) on the site and within 120 metres of the site;
- 1.21 the location of existing and proposed stockpiles of topsoil and overburden on the site;
- 1.22 the location of existing and proposed aggregate stockpiles, including any recyclable materials on the site;
- 1.23 existing and proposed scrap location(s) on the site;
- 1.24 existing and proposed fuel storage area(s) on the site;
- 1.25 significant natural features on and within 120 metres of the site;
- 1.26 significant man-made features on and within 120 metres of the site;
- 1.27 all existing excavation faces and rehabilitated areas;
- 1.28 the location of existing and proposed processing area(s) and whether or not the equipment is stationary and/or portable;
- 1.29 the general types of equipment that will normally be used on site;
- 1.30 the location of existing berms and the location and minimum height of proposed berms;
- 1.31 how the earth berms will be maintained;
- 1.32 the sequence and direction of the pit development;
- 1.33 the maximum number of lifts, the maximum height of the lifts;

- 1.34 details on how progressive rehabilitation will be conducted in relation to the operational sequences;
- 1.35 details on how the overburden and topsoil will be used to facilitate progressive rehabilitation;
- 1.36 any proposed water diversion and points of discharge to surface water on the site;
- 1.37 the area in hectares to be extracted on the site;
- 1.38 the location and labelling of all excavation setbacks from the permitted boundary;
- 1.39 the location and design of any proposed tree screens;
- 1.40 a section to record any variations from the operational standards that relate to the site;
- 1.41 a list of references, if any, which apply specifically to the preparation of the site plan drawing (e.g. air photo, technical reports or Ministry of Natural Resources district values maps);
- 1.42 the location and design of any vegetation that will be established on the site during progressive rehabilitation;
- 1.43 the general type of vegetation that will be established on the rehabilitated areas of the site;
- 1.44 the estimated final elevations of the site;
- 1.45 how the slope will be established on the excavation faces and the pit floor;
- 1.46 details on the hours of operation of the site taking into account all facets of the operation which involves the actual physical movement of aggregates;
- 1.47 final drainage pattern;
- 1.48 a cross section showing the following information:
 - (a) existing condition;
 - (b) final floor elevation;
 - (c) final slope gradients; and
 - (d) the water table;
- 1.49 details of how trees and stumps shall be disposed of or utilized;
- 1.50 a statement to indicate the maximum number of tonnes of aggregate to be removed from the site in any calendar year. This may be expressed as unlimited;
- 1.51 the elevation of the established groundwater table on site; and
- 1.52 any recommendation(s) and/or monitoring program(s) identified in the technical reports.

2.0 Report Standards for Category 10 Applications

2.1 Summary Statement

A summary statement accompanying an application for a permit must be signed by the author and provide information on the following:

- 2.1.1 if the present land use is agriculture, the agricultural classification of the proposed site, using the Canada Land Inventory classes. For the lands being returned to agriculture, the proposed rehabilitation techniques must be identified.

The summary statement may be prepared by the applicant and may include information previously submitted or referenced as part of the Forest Management Planning process.

2.2 Technical Reports

Technical reports accompanying an application for a permit must provide information on the following:

- 2.2.1 Hydrogeological Level 1: Preliminary hydrogeologic evaluation to determine the final extraction elevation relative to the groundwater table, and the potential for adverse effects to groundwater and surface water resources and their uses;
- 2.2.2 Hydrogeological Level 2

Where the results of Level 1 have identified a potential for adverse effects of the operation on ground water and surface water resources and their uses, an impact assessment is required to determine the significance of the effect and feasibility of mitigation. The assessment should address the potential effects of the operation on the following features if located within the zone of influence for extraction below the groundwater table, where applicable.

A technical report must be prepared by a person with appropriate training and/or experience in hydrogeology to include the following items;

- (a) waterwells;
- (b) springs;
- (c) groundwater aquifers;
- (d) surface water courses and bodies;
- (e) discharge to surface water;
- (f) proposed water diversion, storage and drainage facilities on site;
- (g) methodology;
- (h) description of the physical setting including local geology, hydrogeology, and surface water systems;
- (i) water budget;
- (j) impact assessment;

- (k) mitigation measures including trigger mechanisms;
 - (l) contingency plan;
 - (m) monitoring plan; and
 - (n) technical support data in the form of tables, graphs and figures, usually appended to the report;
- 2.2.3 Notwithstanding section 2.2.1 and 2.2.2 if the proposed site is remote or isolated and the following criteria has been satisfied, then a Hydrogeological Level 1 and Level 2 is not required:
- 2.2.3.1 if the excavation limit of the site is not within:
- a) 500 metres of a coldwater stream;
 - b) 1000 metres of a waterwell, whether dug or drilled; and
 - c) 5000 metres of a sensitive receptor.
- 2.2.4 Natural Environment Level 1: determine whether any of the following features exist on and within 120 metres of the site: significant wetland, significant portions of the habitat of endangered or threatened species, fish habitat, significant woodlands (south and east of the Canadian Shield), significant valley lands (south and east of the Canadian Shield), significant wildlife habitat and significant areas of natural and scientific interest;
- 2.2.5 Natural Environment Level 2: impact assessment where the level 1 analysis identified any features on and within 120 metres of the site in order to determine whether there will be any negative impacts on the natural features or ecological functions for which the area is identified and any proposed preventative, mitigative or remedial measures;
- 2.2.6 Cultural Heritage Resource Stage 1: determine if there are any known significant archaeological resources on the subject property and the potential of the site to have heritage resources;
- 2.2.7 Cultural Heritage Resource Stage 2: property survey by a licensed archaeologist if stage 1 identifies known resources or a medium to high potential for heritage resources on the site and mitigation, if recommended;
- 2.2.8 Cultural Heritage Resource Stages 3 and 4: detailed site investigation by a licensed archaeologist (e.g. test pits, plowing fields and survey) when recommended by stage 2 and mitigation through excavation, documentation, or avoidance, if recommended; and
- 2.2.9 Each report shall state the qualifications and experience of the individual(s) that have prepared the reports.

The technical report(s) must be prepared by a person with appropriate training and/or experience and may include information previously submitted or referenced as part of the Forest Management Planning process.

3.0 Prescribed Conditions that Apply to Category 10 Aggregate Permits

The permit is subject to the following conditions:

- 3.1 A Forest Resources Licence is required prior to harvesting the trees within the site boundary.
- 3.2 Dust will be mitigated on site if a sensitive receptor is within 2000 metres of the permitted boundary.
- 3.3 Water or another provincially approved dust suppressant will be applied to internal haul roads and processing areas as often as required to mitigate dust, if a sensitive receptor is within 500 metres of the site.
- 3.4 Processing equipment will be equipped with dust suppressing or collection devices, where the equipment creates dust and is being operated within 500 metres of a sensitive receptor.
- 3.5 Noise will be mitigated at source with appropriate noise attenuation devices in addition to appropriate site design when a sensitive receptor is within 2000 metres of the permitted boundary.
- 3.6 Fuel storage tanks will be installed and maintained in accordance with the Gasoline Handling Act.
- 3.7 Any recommendations and/or recommended monitoring program identified in the technical reports will be described on the site plan and all records will be retained by the permittee and made available upon request by the Ministry of Natural Resources for audit purposes.
- 3.8 If required, a Certificate of Approval will be obtained for the discharge system should water be discharged off site.
- 3.9 If required, a Certificate of Approval will be obtained for processing equipment to be used on site.
- 3.10 If required, a Permit to Take Water will be obtained for utilizing ground and/or surface water.
- 3.11 A Spills Contingency Program will be developed prior to site preparation.

4.0 Notification and Consultation Standards for Category 10 Applications

The applicant shall submit all required documentation to the Ministry of Natural Resources. Within fifteen (15) days, the Ministry of Natural Resources shall determine if the application is complete. Once the application is complete, the applicant may proceed with the following Notification and Consultation Standards.

4.1 Notification

- 4.1.1 if significant environmental impacts are recognized by the Ministry of Natural Resources, then additional consultation may be required (e.g. newspaper ads, open house, etc.) as per exemption 26/7 of the Environmental Assessment Act.
- 4.1.2 The applicant must provide by written notice delivered personally or by registered mail, to landowners within 120 metres of the proposed permit boundary according to the most recent assessment available at the time of application, the following:
 - 4.1.2.1 applicant's name, address and telephone number;
 - 4.1.2.2 proposed location of site;
 - 4.1.2.3 describe the operation - whether a pit or quarry; and
 - 4.1.2.4 asking the landowner(s) to respond in writing to the applicant, copy to Ministry of Natural Resources, identifying any concerns with regard to the proposal.
- 4.1.3 The applicant must circulate the complete application package and information on the proposed consultation process (if required) to the agencies and stakeholders identified below for comments. It is the applicant's responsibility to determine the appropriate contact office and person.
 - 4.1.3.1 the local municipality in which the site is located;
 - 4.1.3.2 the Region/County in which the site is located;
 - 4.1.3.3 Ministry of Transportation (MTO);
 - 4.1.3.4 Ministry of Agriculture, Food & Rural Affairs (OMAFRA)(only if prime agricultural land is not being restored to the same average soil quality);
 - 4.1.3.5 Ministry of Northern Development and Mines (MNDM);
 - 4.1.3.6 aboriginal organizations, as directed by the Ministry of Natural Resources;
 - 4.1.3.7 forest companies, as directed by the Ministry of Natural Resources; and
 - 4.1.3.8 utility corporations (if an easement exists on site or within 120 metres); and
 - 4.1.3.9 Ministry of Environment and Energy (based on Hydrogeological Level 1 recommendations).
- 4.1.4 Requirements under Sections 4.1.2 and 4.1.3 shall be conducted concurrently.
- 4.1.3 Comments must be received within 20 days of notification under Sections 4.1.2 and 4.1.3.

4.2 Resolution of Concerns

- 4.2.1 During the notification procedures, the applicant shall attempt to resolve any concerns within a reasonable time.
- 4.2.2 If all concerns have been resolved, the applicant must:
 - 4.2.2.1 amend the permit application, site plans or reports, if required, in consultation with the Ministry of Natural Resources based on the results of the notification;
 - 4.2.2.2 provide documentation that concerns have been addressed to the Ministry of Natural Resources; and
 - 4.2.2.3 submit documentation of landowner and stakeholder contacts and agencies circulation to the Ministry of Natural Resources.
- 4.2.3 If all concerns are not resolved;
 - 4.2.3.1 the applicant shall submit to the Ministry of Natural Resources:
 - (a) documentation of attempts to resolve issues;
 - (b) list of unresolved issues; and
 - (c) documentation of landowner and stakeholder contacts and agencies circulation.
- 4.2.4 Once the Ministry of Natural Resources has received:
 - 4.2.4.1 agency comments, if any;
 - 4.2.4.2 applicant's scoping and documentation as per section 4.2.3; and
 - 4.2.4.3 documentation of landowner and stakeholder contacts and agencies circulation.

they shall process the application within 20 days in accordance with Section 37 or 42 of the Aggregate Resources Act.
- 4.2.5 If the applicant does not submit the required information as noted in section 4.2.2 or 4.2.3 within six (6) months of the date the application has been accepted as complete by the Ministry of Natural Resources, or such other period of time as approved by the Ministry of Natural Resources, the application is considered withdrawn.

5.0 Operational Standards that Apply to Aggregate Permits

Unless the site plan provides otherwise through variations from these operational standards identified on the site plan, the permittee must comply with the following:

- 5.1 the permittee shall identify and maintain all boundaries of the site including all corners (e.g. flagging tape, etc.);
- 5.2 a gate is erected and maintained at each entrance to, and exit from, the site and that all such gates are kept closed when the site is not in operation;
- 5.3 each entrance to, and exit from, the site is located so as to provide, at the point of intersection with any highway, a clear view of the highway in both directions;
- 5.4 all topsoil or overburden that is stripped during the operation of the site will be stored separately with vegetated stable slopes;
- 5.5 adequate vegetation is established and maintained to control erosion of any berm or stockpile of topsoil or overburden;
- 5.6 topsoil must be stripped sequentially prior to aggregate extraction;
- 5.7 within the area to be extracted, all trees within five (5) metres of the excavation face must be removed;
- 5.8 the site is kept in an orderly condition;
- 5.9 all scrap is removed on an ongoing basis, and scrap shall include refuse, debris, scrap metal or lumber, discarded machinery, equipment and motor vehicles. Scrap cannot be located within 30 metres of any body of water, and 30 metres from the boundary of the site;
- 5.10 “excavation setback areas” means the area within:
 - 5.10.1 fifteen metres from the boundary of the site;
 - 5.10.2 thirty metres from any part of the boundary of the site that abuts:
 - 5.10.2.1 a highway,
 - 5.10.2.2 land in use for residential purposes at the time the permit was issued, or
 - 5.10.2.3 land restricted to residential use by a zoning by-law when the permit was issued; or
 - 5.10.3 thirty metres from any body of water that is not the result of excavation below the water table;
- 5.11 no excavation can occur within the excavation setback area of the site;
- 5.12 all excavation faces are to be stabilized in so far as is necessary to prevent erosion into the excavation setback area;

- 5.13 no person shall pile aggregate, topsoil or overburden, locate any processing plant or place, build or extend any building or structure:
 - 5.13.1 within thirty metres from the boundary of the site; or
 - 5.13.2 within ninety metres from any part of the boundary of the site that abuts:
 - 5.13.2.1 land in use for residential purposes at the time the permit was issued, or
 - 5.13.2.2 land restricted to residential use by a zoning by-law when the permit was issued;
- 5.14 berms that are intended to screen the adjoining lands from the operation on the site are exempt from section 5.13;
- 5.15 all berms shall be located at least three metres away from the boundary of the site;
- 5.16 removal of topsoil from the site shall not occur;
- 5.17 all topsoil or overburden stripped in the operation of the site is used in the rehabilitation of the site;
- 5.18 adequate vegetation is established and maintained to control erosion of any topsoil or overburden replaced on the site for rehabilitation purposes;
- 5.19 when the site is finally rehabilitated, all excavation faces:
 - 5.19.1 of any pit has a slope that is at least three (3) horizontal metres for every vertical metre;
 - 5.19.2 of any quarry has a slope that is at least two (2) horizontal metres for every vertical metre;
- 5.20 no aggregate or overburden, except material in a berm, may be moved from the excavation setback area;
- 5.21 rehabilitation of the site shall ensure that:
 - 5.21.1 adequate drainage and vegetation of the site is provided; and
 - 5.21.2 any compaction of the site is alleviated;
- 5.22 no person may detonate any explosives on the site on a holiday or between 6 p.m. on any day and 8 a.m. on the following day;
- 5.23 every permittee shall ensure that, on the site, no person contravenes section 5.10, 5.11, 5.12, 5.13, 5.14, 5.15, 5.16 or 5.22; and
- 5.24 a response to emergencies is not limited by the hours of operation shown on the site plan.

6.0 Annual Compliance Reporting for Aggregate Permits

- 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;
- 6.4 non-compliance with the Act, regulations, operational standards, site plan and the conditions of the permit must be noted on page 1 and 2 of the Report;
- 6.5 documentation of the action for non-compliance must be recorded on page 3 with the appropriate remedial action deadline date;
- 6.6 all remedial action documented on page 3 must be completed within a 90-day period from the date of filing, or such further period as may be allowed under subsection 40.1(4) of the Act;
- 6.7 the permittee must receive prior approval from the inspector to have the 90 day period extended before filing the report with the Ministry of Natural Resources;
- 6.8 every permittee must provide a sketch of the permitted site, with the Compliance Assessment Report documenting such standards as identifying boundaries, berms, tree screens, and setback requirements that require remedial corrective action as documented on page 3 of the Report;
- 6.9 the permittee must provide a sketch showing areas that have been progressively rehabilitated; and
- 6.10 pursuant to subsection 57(4) of the Aggregate Resources Act, it is an offence to furnish false information.