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LARGE FILL PROCEDURAL GUIDELINE

These guidelines provide additional guidance for the review of permit applications made under Ontario Regulation 167/06, Development, Interference with Wetlands and Alterations to Shorelines and Watercourses, the Otonabee Region Conservation Authority's regulation under Section 28 of the Conservation Authorities Act.

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1.0 LARGE FILL PLACEMENT

The provisions of these guidelines only apply to those lands that are within the regulatory jurisdiction of the Otonabee Region Conservation Authority (ORCA) as determined by Ontario Regulation 167/06. In accordance with Ontario Regulation 167/06, any proposed development within a regulated area requires permission from this Authority. Permission may be granted if in the Authority's opinion, the control of flooding, erosion, dynamic beaches, pollution or the conservation of land will not be affected by the development.

As is the case with all proposed developments in areas subject to Ontario Regulation 167/06, proponents are encouraged to contact ORCA staff directly to pre-consult regarding their proposal and to confirm permit requirements.

Large fill sites are classified by ORCA as those sites that involve the importation of for 500 cubic metres or more of excess soil that has been excavated/removed, mainly during construction activities that cannot be reused at the site and must be moved off site.

This guideline, however, is not strictly limited to large fill volumes. ORCA staff can use this guideline for other applications where deemed appropriate (i.e. applications that are for fill volumes less than 500 cubic metres or cumulative fill placement over numerous years).

These guidelines do not change the normal ORCA permitting process; the intent is to clarify ORCA requirements that are specific to large fill applications made under Ontario Regulation 167/06. The permit approval process is detailed in Section 4.1.3 of ORCA's 'Watershed Planning & Regulations Policy Manual'.

Where large fill sites are proposed in a regulated area that contains more than one regulated feature/area, all of the policies that pertain will be applied, and where applicable, the most stringent policies applied.

For the purpose of these guidelines, soil is defined as: substantially unconsolidated naturally occurring mineral particles and other naturally occurring material resulting from the natural breakdown of rock or organic matter by physical, chemical or biological processes that are generally smaller than 2 millimetres in size of that pass the US #10 Sieve. Other incidental amounts of inert fill material may also be accepted.

2.0 GENERAL POLICIES

ORCA will be guided by the following policies when assessing applications for the placement of large amounts of fill:

- ***In general, large fill sites should be directed away from areas that are subject to Ontario Regulation 167/06.***
- ***In general, large fill sites will be prohibited in:***
 - ***Watercourses;***
 - ***Wetlands;***
 - ***Hazardous lands;***
 - ***Areas of Natural and Scientific Interest (ANSIs);***
 - ***Key natural heritage features such as significant valleylands; and,***
 - ***Natural Core Areas and Landform Conservation Areas 1 and 2 as defined in the Oak Ridges Moraine Conservation Plan.***

3.0 APPLICATION/PERMIT REQUIREMENTS

Upon the receipt of an application submitted under Ontario Regulation 167/06 for development activities associated with the placement of large quantities of fill, Authority staff will ensure that the application is complete and all the necessary supporting documentation has been submitted. Supporting documentation must include:

- Four copies of a plan of survey of the subject property prepared by a certified Ontario Land Surveyor (OLS) showing the subject property and the specific location(s) of the subject property where development activities are being proposed. The certified plan shall show a minimum of the following:
 - i. Key map;
 - ii. Confirmation that it is drawn to scale;
 - iii. Location of the subject property including property lines, north arrow, and nearest roadways/intersections;
 - iv. Location and dimensions and use of existing and proposed buildings or structures;
 - v. Existing topography - elevations and proposed elevations (pre- and post-fill elevations) within and adjacent to the area where development (fill) is being proposed at 0.5 metre contour intervals using a geodetic datum. The plan must show the subject property and locations of each fill envelope being proposed on the property;
 - vi. Multiple cross sections through each fill envelope;

- vii. Location and dimensions of all temporary fill stockpiles, staging areas and access routes;
 - viii. Total fill quantity shown on the plans in cubic metres. No filled slopes are to exceed a gradient of 3(horizontal): 1 (vertical);
 - ix. A specified limit on the depth of fill material is indicated;
 - x. The regulatory floodplain of any watercourse;
 - xi. Location of all environmentally sensitive features that may include, but is not limited to the following: watercourses, wetlands, valleylands (including extent of associated floodplain and/or erosion hazard), unstable soil or unstable bedrock, areas of natural and scientific interest, significant woodlands, significant wildlife habitat, threatened or endangered species habitat, sensitive hydrogeological features (e.g. aquifers, intake protection zones, springs, seeps, etc.);
 - xii. The Authority's regulatory limit as prescribed by O. Reg. 167/06;
 - xiii. Other known site features and structures such as access roads, culverts, utilities, poles, pavement, curbs, etc.
- Start and finishing dates of project including sequencing and revegetation;
 - Sediment and erosion control plan indicating the measures to be taken. The plan shall include the type, location and sequencing of the proposed measures ;
 - Drainage patterns pre- and post-development that verifies the fill will not alter drainage patterns and volume in such a way to have an adverse effect on upstream, downstream and adjacent properties;
 - A restoration plan including details for site stabilization measures such as topsoil, seed, sod, hydroseed, and associated timing for the implementation of these measures
 - A soil report prepared by a qualified environmental/geotechnical engineer and/or Professional Geoscientist demonstrating that the control of pollution and conservation of land will not be adversely affected by the fill placement. The report(s) should contain, at a minimum:
 - Baseline information detailing the existing soil and water conditions (surface and subsurface) at the receiving site that is of sufficient quality to determine if the control of pollution will be affected by the proposed fill; and,
 - For each origin site:
 - The municipal address(es) of soil origin;
 - A description of the origin(s) of the fill and its history, past and present uses of the land including any processes involved in the generation of the fill and an assessment of any potential concerns of fill quality and possible contamination;
 - Verification that the fill material is inert (i.e. meeting either Table 1 or Table 2 Site Conditions Standards referenced in the Environmental

Protection Act), based on distributed samples across the site with a focus on the areas of the highest risk. A detailed description of the sampling procedure and rationale shall be provided; and,

- Verification that the fill material is in conformity with the pertinent Ministry of the Environment and Climate Change and Climate Change guidelines.
- A plan demonstrating how the site will be supervised and controlled to ensure the origin and quality of the fill material arriving is acceptable. In some cases where site supervision and control cannot be demonstrated (e.g. multiple suppliers and origins of fill), it may be necessary, at the applicant's expense, to acquire the services of a qualified third party.
- Where site specific conditions/concerns are warranted (e.g. areas within close proximity to the floodplain, erosion hazards or other areas of key natural heritage and hydrologic feature(s), the Authority may require that an Environmental Impact Study (EIS) and/or hydrological study be completed verifying that the proposed fill will not have an adverse impact on natural resources and will not create or exacerbate natural hazards. The study shall assess potential impacts and provide recommendations on the appropriateness of placing fill on the subject lands and any setbacks and/or mitigation measures to the satisfaction of ORCA. Once an application is submitted by the authorized agent/owner, the Authority will review the proposal and, if deemed necessary, a Terms of Reference will be provided outlining the requirements of the study. It will be the sole responsibility of the authorized agent/owner to pay for and complete the EIS. Site specific issues may include, but not be limited to, proximity to or presence of one or more of the following:
 - River or stream valley;
 - Wetland;
 - Watercourse;
 - Features identified by the Clean Water Act (2006)(i.e, intake protection zones, wellhead protection areas, significant groundwater recharge areas, and highly vulnerable aquifers;
 - High water tables;
 - Other hydrogeologically (i.e., significant discharge areas, springs, seeps, etc.,) and/or other environmentally sensitive features.
- The Authority may require additional studies and reports as deemed necessary to ensure that the proposed fill site will not result in an adverse impact on the control of flooding, erosion, pollution or the conservation of land. ORCA may also require a final grade survey or inspection report from a qualified professional be completed.

- It will be the responsibility of the agent/owner to ensure that a final inspection with ORCA staff is coordinated. A final site inspection and review of permit conditions shall be completed prior to the expiry date on the permit to ensure compliance with the terms of the permission. Within 30 days of the final inspection, the applicant shall submit a post elevation and drainage plan/report prepared by a certified Ontario Land Surveyor and confirmed by a qualified professional that the final elevations and drainage patterns are in accordance with the approved plans and will not result in increased or new drainage off-site that will pose a risk to human health, property or the environment.

Please note: It is the responsibility of the applicant to pay for and complete the required survey and/or reports. The Authority reserves the right to retain a qualified consultant(s), at the applicant's expense, to review all reports and studies to determine if they satisfactorily meet the requirements listed in this guideline.

4.0 APPLICATION ADMINISTRATION

- A completed ORCA permit application may be submitted by an authorized agent acting on behalf of the property owner provided that the authorized agent has been granted permission in writing by the property owner (copy of permission shall be provided with the application). The permit application will not be deemed complete until it is signed by the registered property owner(s) and/or principal of the numbered company.
- It is the responsibility of the authorized agent/owner to provide written authorization/consent from the respective municipality(ies) in which the proposed fill site is located regarding their approval of the large fill site, prior to permit issuance. Municipal partner agencies may be concerned with one or more of the following:
 - Oak Ridges Moraine Conservation Plan, Green Belt Plan, Official Plan and Zoning;
 - Condition of municipal roadways and site entrance;
 - Haul route from fill removal location to proposed fill site location;
 - Mud mat, dust control schematics from fill site and removal location;
 - Noise;
 - Timing.

Where fill is being imported from one municipality to another, it will be the responsibility of authorized agent/owner to provide written authorization/consent from both municipalities.

- The term of written permission from ORCA consenting to a large fill operation will be for a period of 2 year maximum. In accordance with Ontario Regulation 167/06, permit extensions will not be granted. Subsequent applications will be subject to the

requirements and stipulations of this procedural guideline including any updates and/or amendments and any additional requirements as may be deemed necessary by the Authority. ORCA acknowledges the cumulative impact of filling and will take into account previous filling activities on the site. The fee will be attributed to the total cumulative amount of filling on site.

- Only one active ORCA permit for fill placement per municipal address can exist at any one time.
- Following issuance of a permit from the Authority, ORCA staff will conduct routine site inspections of large fill sites in order to ensure compliance with permit conditions subsequent to this policy.

5.0 POTENTIAL PERMIT CONDITIONS

The Authority will apply conditions to the permit to ensure that there is no adverse effect on the control of flooding, erosion, dynamic beaches, pollution or the conservation of land. These conditions may include but are not limited to:

- Prior to the expiry of the permit, the submission of post elevation and drainage plan/report, prepared by a certified Ontario Land Surveyor and confirmed by a qualified professional that final elevations and drainage patterns are in accordance with the approved plans and will not result in increased or new drainage off-site that will pose a risk to human health, property or the environment.
- A specified limit of the volume of soil that is permitted.
- A specified limit of the depth of soil material that is permitted.
- Adherence to the requirements of the submitted soil report(s);
- That a qualified on-site manager monitor the receiving site on a monthly basis to ensure maintenance of drainage patterns and that all sediment and erosion control measures are working and provide reports to ORCA advising of the results of the on-site monitoring;
- Monitoring requirements for on-site testing of fill, surface and/or groundwater to ensure that the material is inert and meets specified contaminant quality standard (sampling procedures should be provided to ORCA for review and ORCA may retain a qualified peer review consultant at the permit holders expense to review the sampling procedures and/or testing results;
- Acknowledging the provision of access to the receiving site to ORCA staff and if applicable, the peer review consultant to undertake independent sampling;
- The submission of soil records by a designated on-site manager identifying soil location. On a daily basis, the on-site manager shall confirm all incoming soil is from an approved originating site, and record on the site where alteration activities have occurred. The

location of the loads will be tracked and recorded on a daily basis through the development of a locational grid tracking system for the property. The on-site manager shall inspect incoming material at the receiving site and shall confirm by signed documentation that the soil quality meets the requirement of the sites soil report;

- Records will be retained and made available to ORCA on a monthly basis;
- A daily summary log to be maintained for loads shipped to the site, including date, daily total # of trucks entering the site and the location from where the soil was loaded into each truck;
- The site be gated a signs posted prohibiting access to unauthorized person(s)/trucks, and other such measures that may be necessary to ensure effective site supervision/control (e.g. independent third party);
- Identify a 24 hour contact person who would be in a position of responsibility and could respond to public inquiries and complaints; and communicate the contact information through appropriate means (e.g. posted contact sign at fill site).
- Measures related to the implementation of erosion and sedimentation controls applicable to the placement of the fill and/or temporary stockpiles (if necessary) including: type, location and timing; and/or,
- Requirements for a final report at the conclusion of fill placement including such items, for example, as a final as-built survey, a determination of the final fill volume placement, recommendations for ongoing monitoring of the site, etc.
- Sediment and erosion control measures are to be monitored on a weekly basis and after storm events, any deficiencies reports, a record kept of monitoring and made available to ORCA upon request.