

Large-Scale Fill Operations Policy Discussion Paper

Introduction

Conservation Authorities (CAs), as defined under the *Conservation Authorities Act*, have a broad mandate as watershed managers. The objects of an Authority are to establish and undertake, in an area over which it has jurisdiction, a program designed to further the conservation, restoration, development and management of natural resources. In order to accomplish its objects, an Authority may study and investigate the watershed and determine a program whereby the natural resources of the watershed may be conserved, restored, developed and managed. Section 28 of the *Conservation Authorities Act* outlines the Authority's ability to make regulations in its jurisdiction. These regulations allow a Conservation Authority to prohibit, regulate or require permission for straightening, changing, diverting or interfering in any way with the existing channel of a river, creek, stream or watercourse, or for changing or interfering in any way with a wetland and for development if, in the opinion of the authority, the control of flooding, erosion, dynamic beaches or pollution or the conservation of land may be affected by the development. These regulations also apply to lands adjacent to these features.

Recently many CAs have received applications for or have encountered non-compliance situations dealing with large-scale fill operations. For those with large-scale fill policies, CAs have defined large-scale fill operations as those involving the importation of volumes of fill typically between 250 and 500 cubic metres (approximately between 20 and 40 truck loads). For the purposes of this discussion paper, large-scale fill operations are those where the fill originates off-site and is brought to a new site. It does not refer to cut and fill situations on a single landholding or fill placement related to subdivision development. Experience to date has shown that these large-scale fill sites typically have no *Planning Act* application associated with them and therefore, when occurring in a regulated area, CAs must consider these applications using their regulatory authority as described in Section 28 of the *Conservation Authorities Act*.

While transportation of fill is not a new issue for CAs, there has been a recent change in scale and scope of this issue in the context of large-scale fill operations. The movement of large quantities of fill represents a significant commercial activity with the potential for large profit. Given the potential for large profit, fill material is now traveling further, often ending up in a different watershed from its point of origin. Some contractors are now hiring fill brokering companies to move the material, resulting in a convoluted chain of custody. These factors have compounded and resulted in CAs often dealing with fill activities in a reactive manner through reviewing applications made under the *Conservation Authorities Act* or at times, through responding to non-compliance situations. It is now more challenging for CAs to deal with the entire lifecycle of projects, from excavation to deposition, as fill often leaves their watershed(s) and their regulatory scope.

Excess fill is generated as a result of a variety of activities including infrastructure projects and site development. In the coming years there is an anticipated growth in demand for fill placement sites given a large number of Greater Toronto Area infrastructure projects such as Pan Am Games facilities, Highway 407 expansion and the expansion of the subway system. As a legitimate commercial activity,

trucking and disposal of fill does generate jobs and employment income. At the same time however the cost of trucking and disposal of fill, is driving up the cost of infrastructure projects, a cost which is passed onto taxpayers. CAs responding to non-compliance issues as a result of large-scale fill operations also represents a significant cost to CAs, a cost, which is in part recuperated through municipal levies. In addition to being a potentially significant environmental issue, large-scale fill sites can result in use of significant staff resources related to permit application review and on-going compliance monitoring with equivalent effects on the local ratepayer.

While CAs work within a broader watershed management context, these large-scale fill operations often result in quality of life issues that are beyond the CA mandate. CAs must make decisions based on their regulation and regulatory concerns and cannot refuse a permit due to social considerations associated with the activity (e.g. truck traffic, noise). Decisions around large-scale fill sites evoke emotional concerns; considerable community pressure may be put on CA staff and Board members to refuse an application for reasons not related to Section 28 of the Act.

Purpose of the Paper

The goal of this paper is to make Conservation Authority staff aware of the emerging issues and complications associated with large-scale fill operations and to encourage CAs to complete strategic work within their watershed in advance of facing a challenging large-scale fill operation. To this end, this paper is intended to help identify the issues and the principles which Conservation Authority staff should consider in the establishment of large-scale fill policies that guide the issuance of permissions under the *Conservation Authorities Act*. Given that this is an emerging issue, CAs are in the process of learning from experience. The direction provided is not intended to be static and will necessarily change as our collective knowledge increases. Moreover, the best practices provided within this paper may not apply to all CAs given the differences in size and complexity of applications and variance in capacity of Conservation Authorities.

In an effort to raise the collective knowledge of CA staff and to build towards a more consistent approach to review of large-scale fill applications this paper will focus on the most commonly faced issues around large-scale filling and the creation and application of large-scale fill policies. There is no provincially accepted CA policy for large-scale fill operations and variation exists across Ontario. For the most part, CAs have had little opportunity to apply their large-scale fill policies and as a result, the best management practices for these policies will evolve over time.

Municipalities and Large-Scale Fill Sites

The control of fill and grading is a responsibility shared among many agencies, with gaps in responsibilities, legislative authority and/or area of coverage. There is no single provincial legislation that applies directly to the definition, removal, transportation, placement and grading of fill in the context of addressing the total potential impacts associated with this activity.

Municipalities have a broad mandate through their site alteration by-laws and may consider most aspects of fill placement and grading that may negatively impact the quality of life in communities and the natural environment. However, the municipalities are restricted in the application of site alteration by-laws through Section 142(8) of the *Municipal Act*, which states that such by-laws have no effect where *Conservation Authorities Act* regulations are applicable. Section 142 of the Act is included as Appendix 1. However, Section 142(8) specifically states:

By-law ceases to have effect

(8) *If a regulation is made under section 28 of the Conservation Authorities Act respecting the placing or dumping of fill, removal of topsoil or alteration of the grade of land in any area of the municipality, a by-law passed under this section is of no effect in respect of that area. 2001, c. 25, s. 142 (8).*

Some municipalities have voiced their concerns with respect to the limitations of the CA permit process to address issues that are important to their municipality such as noise, dust, hours of operation, haul routes, road damage, visual impacts and impacts to the character of the landscape/landform (for an example, please see Appendix 2). As a best practice, a Conservation Authority should consider providing a coordinated application, review and approval for large-scale fill operations between CAs and municipalities where large-scale fill issues have become prominent and/or in cases where both the municipal by-law and the CA's regulation apply to different sections of the same property. Coordinated approaches include everything from: (a) references in CA procedural documents suggesting joint pre-consultation between municipal and CA staff and applicants; (b) circulation of information to municipalities; (c) formal circulation to municipalities with requests for comments; and, (d) discussion around the possibility that a municipality may be able to apply other by-laws which are not affected by S. 142 (8) of the Act. Each of these approaches seeks to open dialogue between the CA and municipality. Such an approach would also allow for scoping and coordination of reports and undertakings to address both the CA permit process and the municipal site alteration by-law. As a caution, coordinated approaches should be undertaken within clearly defined limits as the *Conservation Authorities Act* does not encourage third party involvement in review of applications.

CAs are encouraged to engage their municipal partners in discussions around how best to address these large-scale fill operations within their local context. In some cases, Memorandums of Understanding similar to those used by CAs and municipalities for review of *Planning Act* applications, may be a useful tool for addressing these large-scale fill sites. During the discussions CAs should articulate the parameters with which they review applications and be clear with their municipal partners and the public that some of the larger social considerations, such as noise, dust, time of activity, etc cannot be included as conditions of a CA approval. It should be emphasized that the permit is a technical permission to satisfy specific requirements of the regulation with no legislative authority or requirement for public consultation or to incorporate the considerations of municipal by-laws. Through the *Policies and Procedures for Conservation Authority Plan Review and Permitting Activities* document, CAs have an obligation to provide a timely review of all applications. Given the complexity of large-scale fill operations, the major application review time should be applied and efforts should be made to complete the review within the specified 90 day period. Although CAs should not withhold a decision on an application due to municipal process or concerns that are outside a CA's regulatory requirements, it

is a best management practice to ensure municipal involvement in dealing with watershed residents' concerns.

Control of Pollution and Large-Scale Fill Sites

Conservation Authorities evaluate applications in regulated areas to ensure that the proposed development will not affect the control of flooding, erosion, dynamic beaches or pollution or the conservation of land. As it relates to large-scale fill applications, the control of pollution tends to be a common concern amongst CA staff, municipalities and the public. The quality of surplus fill varies depending on the origin of the material, its locations and land use history. The Ministry of the Environment (MOE) is responsible for the quality of fill material under the *Environmental Protection Act* in terms of contamination, but does not address social or economic issues. If there is contaminated fill, MOE will respond to complaints, examine the material and take appropriate action as required. When appropriate, MOE staff may have to take a lead role in individual cases involving contaminated fill.

The proponent is obligated to prove to the CA that they will not adversely affect the test of the control of pollution through their application for a Section 28 permission. Should the proponent fail to provide evidence that the control of pollution would not be adversely impacted, a CA staff member may choose to recommend refusal of an application. While MOE has the mandate for addressing fill quality through the EPA, there is typically no trigger for MOE to get involved in review. Given the variable range of capacity found within individual CAs, more or less direction may be required from MOE staff and/or the qualified person producing the soil reports and managing the site.

While the MOE has legislated responsibility for addressing contamination, it is ultimately the land owner who bears responsibility for the quality of fill material and the potential impact that fill may have on the land and water. Certainly the CA may permit and inspect fill sites; however, it is the land owner who signs the declaration of fill quality, and accepts responsibility for the material being imported. The broad distribution of fill material over many sites, with significant fill volumes, compounds the potential impacts of inappropriate fill material. For major fill projects, an Authority may choose to request that the landowner have Environmental Liability Insurance.

Quality of fill is the most often discussed issue between CA and municipal staff. Type of fill material and quality varies from natural soil/rock to man-made materials (e.g., cement, glass, etc.) and can be environmentally benign or contaminated. Municipalities and CAs in their respective Site Alteration By-laws and watershed policies often refer to "inert fill". Currently the term "inert fill" is not defined in provincial legislation in a way that is helpful in determining fill quality parameters. In 2004 (and revised in 2011), the MOE published a guideline document that includes a series of Tables of Site Conditions Standards (Tables) pursuant to Part XV.1 of the *Environmental Protection Act* (EPA); please see appendix 3 for further information. The Tables include standards or limits related to over 100 different contaminants that could be found within soil. Generally, Table 1 has the most restrictive level of contaminants and Table 9 the highest level of contaminants. Table 1 is intended to reflect current background soil conditions generally found throughout Ontario where there has been no point source contamination. Table 2 represents the contaminant levels acceptable for areas with potable

groundwater and vary slightly depending on the intended land use (e.g. agricultural land has higher standards than industrial/commercial land). Generally any fill that exceeds Table 3 standards is considered waste and must be removed by a licensed waste management carrier to a site licensed to receive the specific type of waste for disposal.

The Ministry of Natural Resources in their aggregate rehabilitation policy and the Niagara Escarpment Commission in their “Filling, Grading, Excavation and Site Alteration” policy utilize the MOE Tables as a means of defining appropriate fill quality. Generally, the Tables are meant to address the assessment and remediation of contaminated sites and not for the placement of fill on uncontaminated land. Conservation Authorities are obligated to consider the control of pollution when evaluating whether or not to grant a permission to undertake development on a property. Given the lack of a formal definition of “clean fill” and direction on how the quality of fill relates to the control of pollution test, the Tables are a useful tool that CAs could consider for use that set out specific standards/restrictions for various contaminant levels in soil.

Many CAs and municipalities rely on these standards and use them when applying local regulatory controls through CA regulations and site alteration by-laws. Adherence to the appropriate Tables within these standards may address the issue of contamination through filling activities, but fails to consider suitability for the after-use of the site. While fill may not be contaminated, it may still not be suitable for some intended uses. For example, the fill could not be used for agriculture if it contains concrete, aggregate or subsoil. Regulatory authorities such as CAs, require direction as to appropriate standards to guide the management of the type and quality of fill. Currently, CAs are limited in their ability to address after-use given the legislative intent of CA regulations. These regulatory limitations may be of concern to our municipal partners and other stakeholders.

The MOE Tables have been used by provincial ministries to deal with the placement of fill. The MNR, when dealing with aggregate rehabilitation, generally only allows the importation of Table 1 soils. The MOE, in two recent Director’s Orders pursuant to the EPA related to fill activity, limited fill material at the receiving site to Table 1 and 2. Another consideration for CAs when determining the appropriate quality of fill is whether to allow fill material that contains higher contaminant levels than currently exists on a receiving site. Some CAs therefore require determination of baseline soil and water (surface and ground water) conditions at the receiving site prior to determining an appropriate level for imported fill material.

As part of a strategy to assess large-scale fill projects, CAs can consider establishing an administrative procedure (see Appendix 4 for further information) to outline how fill quality standards should be met. MOE staff or a qualified person should be responsible for defining appropriate standards for the site. As part of a complete application, documentation of the source(s) and origin(s) of the fill material should be required as well as the potential for soil reports with suitable sampling of the origin site verifying that the fill material meets the applicable standards and a requirement for a peer review of technical soil reports.

Other Areas and Large-Scale Fill

Conservation Authorities regulate areas adjacent or close to the shoreline of the Great Lakes-St. Lawrence River System or to inland lakes that may be affected by flooding, erosion or dynamic beach hazards; river or stream valleys; hazardous lands; wetlands; or other areas where, in the opinion of the Minister, development should be prohibited or regulated or should require the permission of the Authority. Conservation Authorities' regulated area applies to wetlands and to "other areas" where development could interfere with the hydrologic function of a wetland, typically including areas within 120 metres of all provincially significant wetlands and areas within 30 metres or 120 metres of other wetlands depending on the wording of the regulation for the specific Conservation Authority. Many large-scale fill sites have been concentrated in these "other areas". Due to the scale of the development (placing large volumes of fill adjacent to a wetland), the assumption is that there could be interference with the hydrologic function of the adjacent wetland. Therefore the Authorities should require that the proponent determine what the interference to the hydrologic function of a wetland could be and the result and the impact on the five tests. The Conservation Authority should review this supporting information to determine whether a permit should be issued and/or the conditions to be included for development in the "other areas". As the regulation reads "areas where development could interfere with the hydrologic function of a wetland" a Conservation Authority has requested confirmation from the Ministry of Natural Resources that the regulated area may extend beyond the 120/30 m should the hydrologic function to the adjacent wetland be demonstrated. In the absence of provincial direction at this time, CAs should concentrate on applying the full extent of their regulatory authority within the 120/30 m other area adjacent to wetlands.

CA Review of Large-Scale Fill Applications

Each CA should consider establishing a general policy that would provide some direction on the level of acceptability of large-scale fill operations within regulated areas. Proposed development activities should not negatively affect the control of flooding, erosion, dynamic beaches, pollution or the conservation of land, the alteration of watercourses and interference with wetlands. Given the heightened environmental significance of regulated areas, CAs should consider establishing a general policy or guiding principles related to the establishment of a large-scale fill operation within their regulated area. For example, a CA could adopt a general policy discouraging large-scale fill operations in regulated areas due to the potential for these activities to negatively affect the tests under the *Conservation Authorities Act* have been addressed.

As previously described, there is no provincially endorsed fill policy for CA use. A number of CAs have developed individual policies which seek to provide direction to staff and Board members when reviewing applications. Appendix 5 provides an example of a policy that the Central Lake Ontario Conservation Authority has developed. Some Authorities feel that their watershed development policies already provide sufficient direction to staff and Board members to allow them to make appropriate

decisions on applications. This has prompted some Authorities, such as the Grand River Conservation Authority, to adopt an administrative guideline (see Appendix 4) to assist staff with details that are specific to large-scale fill operations only.

Reviewing Applications

Experience of CA staff in review, issuance and monitoring of permits for large-scale fill sites points to the importance of having a complete application up-front and not relying on permit conditions to address concerns related to the proposed development. Pre-consultation through on-site meetings with affected parties such as the proponent, municipality, qualified persons, MOE staff, etc will allow a full range of issues to be discussed. These meetings, while time consuming, will assist CA staff with understanding the full suite of issues that may occur as a result of the development and give an appreciation for the scale of the works. In cases where both the CA's regulation and the municipal by-law will apply, a single plan should be submitted for both the regulated and non-regulated area to ensure that both applications are consistent. Joint monitoring of permissions as the work is undertaken is also recommended.

Box 1 below provides a sample complete application checklist.

BOX 1: SAMPLE COMPLETE APPLICATION CHECKLIST

- Location of the property
- Total fill quantity to be brought on site, indicated in cubic metres
- Names and contract information for the property owner(s) and contractor(s) for the site
- Plans to be prepared by a qualified individual
 - Elevation plan showing existing and proposed elevations
 - Legal survey of the property
 - Grading/drainage plan that shows pre and post development and verifies the fill will not alter drainage patterns and volumes in such a way to have an adverse affects on downstream or upstream properties
 - Sediment and erosion control plan
 - Staging plan which shows location and dimensions of all temporary stockpiles, staging areas and access routes
 - Site restoration plan (details site stabilization measures)
 - Plans should note the location of all environmentally sensitive features that may include, but are not limited to the following: watercourses, flood plains, erosion hazards, wetlands, valley systems, hydrogeologically sensitive features (i.e. springs, seeps, etc)
 - Plans should illustrate the Authority's regulatory limit; and
 - Other known site features and structures such as buildings, access roads, culverts, utilities, poles, pavement, curbs, etc.
- Documentation acceptable to the Authority of background conditions prior to the placement of any fill that is sufficient to determine if control of pollution may be affected by the proposed activities
- Description of the address(es) and property owners of the origin(s) of all fill material
- A description of the origin(s) of the fill and its history, including past and present uses of the land and any processes involved in its generation
- Start and finish dates of project including sequencing and re-vegetation
- A completed soil report prepared by a qualified environment/geotechnical engineer and/or Professional Geoscientist for each originating location where fill is being imported from. The report should verify that the fill material is inert based on distributed samples across the site with a focus in areas of highest risk and/or a report, signed and sealed by a qualified engineer, certifying that the fill is appropriate for the prescribed and proposed land use, clean and inert as per Ministry of Environment Guidelines, and contains no contaminants within the meaning of the *Environmental Protection Act*, R.S.O. 1990, c.E.19, as amended
- Where site specific conditions/concerns are warranted, the Authority may require that an Environmental Impact Study (EIS) and/or hydrological study be completed
- A post development plan prepared by a qualified individual
- Other studies and reports as deemed necessary

If an application for a large-scale fill operation meets a CA's policies, a permit with or without conditions may be issued. Permit conditions will reflect the complexity of the project and, as such, the following general conditions may be expanded upon on a site-by-site basis. Conditions need to be defensible and related to the five tests or prohibitions on altering a watercourse or interfering with a wetland. Given that not complying with a condition of a permit is considered a contravention of the *Conservation Authorities Act*, CAs need to ensure that they have the staff resources and technical expertise to follow-up. Conditions to consider include:

- sediment and erosion controls including in-progress stabilization and maintenance;
- on-site monitoring of sediment and erosion controls and monthly/weekly sediment and erosion control reports submitted to CA;
- notification of when filling begins and stops/recommences (if a large filling operation);
- on-site independent soil testing and/or peer review of soil test results at the expense of the applicant. Need to specify details of soil testing (i.e., separate stockpile until soil test clears, logging of soil locations on-site, timing of tests, etc.);
- definition of the type of fill that is acceptable (e.g. MOE Table 1 or 2);
- at source soil testing;
- daily summary log maintained for loads shipped to the site; and
- contact list and on-site signage.

Large-scale fill operations can require a significant amount of staff time and expertise. The staff resources needed for pre-consultation, coordinating with municipal partners, technical review, monitoring and enforcement (where necessary) may be beyond the current capacity of many CAs. Expertise may also not exist for CA staff to review technical matters such as hydrogeology and/or soil quality. In order to properly review permit applications for these operations, CAs need to assess their current staff complement and determine whether there are sufficient resources available to process such applications. Consideration may need to be given to having technical documents peer reviewed at the expense of the applicant where in-house expertise does not exist and consideration may need to be given to review of fee schedules (see next section) to further support program delivery.

Given the high profile of large-scale fill sites due to truck traffic, noise concerns, etc., CAs should also consider developing a communication protocol for dealing with the concerns of the public. Consideration could be given to a CA requesting that the applicant identify a person in a position of authority to respond on a 24 hour basis to public inquiries and complaints regarding potential pollution concerns and that the contact information for the individual be easily accessible to the public.

Fees

The *Policies and Procedures for the Charging of Conservation Authority Fees* (1997) document sets the parameters around CA fee policies. In relation to large-scale fill activities, sections 5.3-5.5 are of particular relevance. Section 5.3 directs that the "Conservation Authority fee structures should be designed to recover but not exceed the costs associated with administering and delivering the services". Given the resources that are necessary to process permits associated with large-scale fill operations CAs

need to incorporate appropriate fees into their fee schedules to recuperate their costs. This includes providing consideration for the cost of peer-review and soil sampling.

Section 5.4 of the *Policies and Procedures* document directs that “fees should be determined in such a manner as to not deter applicants from receiving due process”. Given the lack of CA experience with large-scale fill operations, it is difficult to determine appropriate fees as staff time, peer review and potential sampling costs are largely unknown and highly dependent upon the site. Any additional requirements beyond what is contained within the fee schedule could be determined during pre-consultation. Section 5.5 indicates that:

“When developing fee schedules, Conservation Authorities should consider: the fees of neighbouring Conservation Authorities to promote consistency, the nature and level of fees charged by local municipalities, and other agencies and ministries for related services to prevent duplicate fee structures and to promote consistency in fee schedules, [and] setting fees dependent on the complexity of applications and the level of effort required to administer the application”.

Having a fairly consistent approach to fees across Ontario may help to limit the potential for some watersheds to become dumping grounds if their fees are substantially lower than other CAs. For similar reasons, it would also be appropriate to consider the scope of fees that are charged by municipalities when a CA is determining its fee schedule.

For those CAs that have a specific fee for large-scale fill sites, a significant range of fees exists. For the most part, CAs are charging a base fee for the review of an application, plus an additional fee per cubic metre once a certain fill volume threshold is crossed, which is typically between 250 and 1000 cubic meters. The additional fee per cubic metre currently ranges from \$0.05 to \$1.00. In this case, proponents are paying on the estimated volume of fill that they will be bringing to the site. CAs can track tickets, look at quotes, and use GPS to estimate the area filled. The pre- and post-fill placement grades will provide an estimate of fill prior to the issuance of a permit, but the actual quantity of material will depend on fill compaction and may vary considerably from the estimated fill volume. The fill volume can be checked against the actual site logs of fill that were provided and it is a good practice to request a final report from a qualified professional engineer or Ontario Land Surveyor reconciling the actual fill volume placed with the estimated fill volume so that the fee can be adjusted accordingly. If using this approach, Conservation Authority staff should track their time to ensure that the fees collected are consistent with the level of effort required to administer the application.

In some cases, CAs have been requesting securities to pay for the costs of peer review, soil sampling and stabilization should the site be abandoned. This may represent a new approach for some CAs, so it will be important to have a discussion with CA financial staff to determine whether this approach is feasible and, if so, what mechanisms need to be put in place. It is also important to consider security deposits in the context of municipal requirements and to avoid duplication wherever possible. Obtaining legal advice is advised. A major challenge with securities is that it is difficult to place a value on site remediation. If securities are to be used, it is recommended that a letter of credit be employed to avoid

having to pay interest on cash or a certified cheque. CAs are also cautioned that securities are not a substitute for having a qualified person ensure that the fill material is appropriate for the property as the costs for remediation could exceed the security.

When setting fees it is recommended that CAs review the costs of implementing their regulatory program, discuss the costs with other CAs and the local municipalities and consult with the industry and set the fee schedule accordingly. Generic costs to be considered in setting fees include:

- Pre-consultation meetings and meetings with municipalities/agencies;
- Technical review of site conditions, drainage plans, soil testing reports, monitoring reports, etc;
- Legal costs associated with reviewing the applications and permit conditions;
- Permit compliance checks; and
- Public inquiries/complaints.

All fee schedules should be set in accordance with the *Policies and Procedures for the Charging of Conservation Authority Fees*. The fee schedule may have to be adjusted as the CA has additional experience working through these applications.

Compliance

Given the scope and intensity of large-scale fill operations, it may be a challenge for CA staff to proactively ensure that proponents are in compliance with their CA Act permissions. There are also occasions where large-scale filling has occurred without permission from the CA.

When CAs are reviewing an application for a large-scale fill operation, it is important for them to try to establish the chain of custody between the fill source(s) and site. As part of a complete application, a CA may require that a soil management plan be developed which requires that there are qualified persons on the source and receiving site. The qualified person on the receiving site should be comfortable with the soil management plan and should be undertaking site supervision and regular reporting. As the landowner who is receiving the fill is liable for the condition of the material, putting the onus on the qualified person (and thus the proponent) to ensure compliance with the CA permit may help to reduce the amount of CA monitoring that must take place. CA staff should seek to develop a positive relationship with the qualified person on site so that additional small requests from the CA can be accommodated where necessary.

CAs should require as part of a complete submission that the complete name and contact information of the owner(s) of the property and the contractor(s) be included on the permit. These individuals should be aware that they are both responsible for the site. Having after-hours contact information for a person in authority who can address inquiries and complaints, such as a cell phone number, is also helpful. The plans and conditions included with a permit should be stringent enough that it is clear when someone is

operating outside of the scope of their permission. This will make it easier for an Authority to prove that the proponent is no longer operating under an approved permit and for the Authority to conduct a hearing to cancel a permission.

The truck drivers who bring the fill to the site are not always aware of permit conditions. Having the qualified person on site is critical for ensuring that CA conditions are met. Given the potential for non-contracted truck drivers to bring fill to a receiving site, CAs should recommend to the proponent that the site be gated and signed to prevent unwanted dumping for which they would be held responsible.

If resources permit, in an effort to prevent large-scale filling from taking place in a regulated area without CA permission, CA staff should seek to develop relationship with fill contactors. This will help to make the contractors aware of the requirements under the CA Act and potentially prompt them to notify the Authority when another contractor is not in compliance. Having that relationship with contractors will also help to prevent contractors from contacting residents directly to see if they are interested in receiving fill (through flyers, phone calls, etc) prior to them checking the sites with CAs.

Other preventative actions that CAs can undertake if resources permit include monitoring fill distribution websites and calling sites where people have posted clean-fill wanted signs. CAs should look for opportunities to communicate at industry meetings about Conservation Authority regulations. CAs should also undertake a public outreach strategy with watershed residents to make them aware of this emerging issue. Social media as well as more traditional mechanisms of communication can be used.

Board Hearings and Public Concerns

Conservation Authorities are obligated to make decisions about applications based upon their legislative mandate as previously described. Public concerns will include a variety of environmental and social issues, many of which are beyond the scope of a CA's regulatory authority. One of the challenges with reviewing an application for large-scale fill sites is that there is no opportunity for public input nor can the permit include conditions to address issues outside the scope of the legislation, which may not be appropriate given the scale and scope of work.

CAs can, however, invite the public to provide input on any guidelines which they may develop to address large-scale fill operations. It is important that the public be informed that the guidelines would be in the context of CA regulatory authority and may not take into account larger social concerns.

When receiving delegations to the Board of Directors, it is important that procedural guidelines are followed, to prevent apprehension of bias in the event of a hearing on an application. Requests for public meetings on the topic should be directed to the proponent. Municipalities should also be encouraged to use their full suite of by-laws if the concerns are largely related to issues such as noise, dust and traffic.

Options for Addressing the Large-Scale Movement of Fill

As described above, the change in the scale and scope of large-scale fill operations within Ontario have resulted in some CAs having to deal with these sites reactively, rather than taking a more proactive approach. As part of their broader mandate as watershed managers, CAs are encouraged to explore opportunities to address the movement of fill within and across watersheds in advance of receiving an application under Section 28. Some of these opportunities are discussed below.

Municipal Fill Strategies

It appears, given the rate of growth and development in south, central and eastern Ontario, that there is growing demand for sites receiving surplus fill material. Excess fill is often generated from municipal projects related to the provision/maintenance of infrastructure. CAs should work with their partner municipalities to develop a large-scale fill strategy to address the disposal of excess fill generated from municipal projects. Such a strategy could include the following considerations:

- Identify candidate large-scale fill sites. When considering appropriate sites, thought should be given as to whether or not there are opportunities for public benefit through the acceptance of fill. For example, the fill could be used by the Conservation Authority, other public body or the private sector (including aggregate producers) for future conservation projects or rehabilitation. The money received for the acceptance of the fill could be used for post-construction naturalization of the filled area;
- Encourage municipalities to require detailed descriptions of where the fill is going to be relocated as part of the tendering process for municipal projects. Where possible, the fill should be directed to pre-approved fill reception areas;
- Updates/refinements to municipal fill/site alteration by-laws to recognize that there may be situations where a portion of the site is subject to a municipal by-law while other portions may only be subject to CA regulations; and
- Coordination of the review and approval process between CAs and municipalities.

Pre-Approved Disposal Sites

One of the problems associated with large-scale fill operations is that it is largely market driven and is based on landowner willingness and proximity to sources of fill rather than a broader vision that identifies appropriate locations for fill placement. CAs could work with municipalities and provincial agencies to identify pre-approved disposal sites which meet the objectives of both agencies. Discussion with aggregate producers and the Ministry of Natural Resources may be beneficial if approved sites are being sought for areas that are already disturbed.

Incorporation of Large-Scale Fill Considerations into Planning Documents

CAs should work with their municipal partners to identify mechanisms whereby the life cycle of fill can be incorporated into planning documents. These opportunities may include identifying where fill will go during the planning process, such as through Master Environmental Servicing Plans and Secondary Plans. Consideration should also be given to incorporating general language into Official Plan documents to ensure that fill is considered as part of the construction process. The movement of fill should also be built into development agreements.

As part of a larger provincial strategy, fill movement considerations should be incorporated into provincial growth plans.

Conclusions and Next Steps

Given the predicted growth in southern, central and eastern Ontario, large-scale fill operations will become a prominent issue in the rural communities surrounding these municipalities. This paper has attempted to identify a number of best management practices and to provide legislative clarity to CAs as they encounter large-scale fill operations within their regulatory jurisdiction. The scale and complexity of these sites, coupled with an inability of the *Conservation Authorities Act* to take into account social considerations, may point to the need for a more fulsome mechanism through which to review these applications.

The responsibility of a Conservation Authority to ensure that the control of pollution is not adversely affected through issuance of a CA permit requires greater legislative clarity from the Ministry of Natural Resources. While pollution is already defined in the *Conservation Authorities Act* and Conservation Authorities may use provincial standards such as the MOE Tables to support that definition if desired, additional provincial direction is required to ensure consistency in approach across the province. Therefore, the appropriate provincial Ministries, such as the Ministry of Natural Resources and the Ministry of the Environment should provide direction to CAs on what standards should be used to address the control of pollution. In the interim and in the absence of specific provincial direction at this time, CAs should consider the best practices advised in this report and employ standards which are defensible and appropriate given CAs' limited resources and MOE's lead role in dealing with groundwater and soil pollution.

The need for a long-term strategy to adequately deal with the full life-cycle of fill cannot be overstated. In the short term, CAs should work with their municipal partners to incorporate fill into planning documents, infrastructure planning and to identify candidate fill sites. In the long-term Conservation Authorities should look for opportunities to assist the province in the development of a more comprehensive provincial fill strategy.