

# RECOMMENDED AGRICULTURAL AGGREGATE SITE REHABILITATION STANDARDS, April 2017

## Background

Aggregate rehabilitation standards, in place in Ontario since 1971, have not resulted in acceptable levels of rehabilitation to agricultural uses as demonstrated by the Interim Report, "From Aggregates to Agriculture"<sup>1</sup>. A significant contributing factor in this lack of success has its roots in the absence of recognized and clearly defined agricultural targets for rehabilitation projects.

In keeping with its long standing tradition of promoting farm land stewardship, The Wellington Federation of Agriculture (WFA) recommends the following targets be applied in the planning, regulation and execution of aggregate site agricultural rehabilitation projects in Wellington County and its constituent Municipalities. Many of the targets below are broadly defined and should allow for site specific opportunities to enhance agricultural productivity.

While many of the following recommendations may also be relevant to aspects of non-agricultural rehabilitation projects, they are directly applicable only to projects that plan to restore an aggregate site to productive agricultural uses.

**WFA recommends that all future local approvals for aggregate sites in Wellington County be approved with a final stage restoration plan that is either:**

- Suitable for future agricultural and/or horticultural uses after restoration, meaning that the restoration plan contains an agronomist certified restoration plan meeting all of the standards set out in this document;

**-OR-**

- Unsuitable for future agricultural and/or horticultural use after restoration, meaning that it does not meet all of the standards set out in this document.

## Standards (Summary)

### **Drainage:**

- Site restoration requires the installation of a systematic tile drainage system covering the entire aggregate project site and the drainage design plan should be signed by a licensed Ontario drainage contractor
- The drainage system must follow standards and recommendations included in *The Drainage Guide for Ontario* (the technical reference document for the regulations to the Agricultural Tile Drainage Installation Act, 1990)
- Provision must be made for an adequate perpetual drainage outlet for the systematic tile drainage system.
- Outlets must provide for connection to natural and/or municipal drainage systems
- Gravity outlets must provide sufficient flood and subsurface drainage for a fifty year event for long term satiability.
- Sediment control provisions must be sufficient to permit normal farm tillage and cropping practices.

### **Restoration Materials:**

- Levels of fabricated (man-made) components included in off-site fill must be low enough to permit all "normal farm practices"
- Maximum particle sizes must be at a level that permits all normal tillage and cropping operations
- Maximum topsoil stone size is 8 centimeters
- Third party inspection, monitoring and open source reporting is required for all restoration materials
- Only temporary storage of restoration materials is permitted on site, with the exception of existing topsoil and agriculturally significant subsoil both of which may be stored on site without limitation pending the start of restoration
- Top soils and sub soils must be stored separately
- Maximum topsoil storage depth is one meter
- Maximum topsoil storage period is 6 years

<sup>1</sup> The Ontario Aggregate Resources Corporation

- Restoration materials must permit agriculturally acceptable root and water penetration under normal farm tillage and cropping practices<sup>2</sup>

***Soil structure including both top soil and sub soils:***

- Minimum topsoil depth is 30 centimeters
- Minimum topsoil plus subsoil depth is one meter
- Topsoil screening standards must permit all normal farm cropping practices
- Minimum topsoil organic matter level is 2.5%
- Organic content includes crop related plant residues, manures and their breakdown products
- Soil structure must provide for normal farm tillage practices
- Phased revegetation may be used to restore productivity levels
- Fertility levels as determined by soil samples must be sufficient to ensure average crop insured yields with fertilization (N,P,K plus locally required trace ingredients) at replacement levels
- Special measures for heavily compacted areas such as worksites and roadways must be sufficient to ensure average crop insured yields

***Topography Standards:***

- Maximum slopes—angle and length of slopes must be sufficient to place the restored site in Canada Land Class Inventory Class 1 (no significant limitations in use for crops) or Class 2 (moderate limitations that restrict the range of crops or require moderate conservation practices-limitations are moderate and the soils can be managed and cropped with little difficulty)

***Phased Rehabilitation Standards:***

- The maximum non-operating period before restoration is 12 months
- Special measures must be sufficient to preserve agricultural potential during non-operating periods

***The Third Party Restoration Plan:***

- The agricultural restoration plan must be completed and approved before aggregate extraction begins
- Full cost, 3<sup>rd</sup> party certified restoration must be provided for by phased funding per unit of extraction

- Funding equal to 10% of estimated restoration cost should be paid on star-up, with the remaining 90% paid per rata based on tonnes mined
- Certification of all agronomic standards must be by a professional agronomist
- Certification must include consideration of a science based 3<sup>rd</sup> party funding of all rehabilitation measures
- Funding arrangements will include 3<sup>rd</sup> party collection of an amount sufficient to finance all measures
- Funds will be collected pro-rata and monthly for tonnes mined

***Suitability for Incorporation in Prevailing Local Commercial Farming Operations:***

- Minimum field sizes and access must be sufficient to permit normal tillage and cropping practices
- The completed site must be capable of sustaining commercially viable yields for at least 3 commercial crop rotations—including: forage production, corn—soybean—wheat production and one other

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<sup>2</sup> Normal Farm Practices as per The Farming and Food Production Protection Act (FFPPA) and Normal Practices Protection Board

