



Lanci Pit Expansion Public Information Session

February 2021

What is CBM Proposing?

- CBM Aggregates, a division of St. Marys Cement Inc. (Canada) is proposing an expansion to the south of the existing CBM Lanci Pit, known as the Lanci Pit Expansion (the Site). The following provides a summary of the proposal:
 - The Site is approximately 14.8 hectares (36.6 acres).
 - Extraction will take place both above and below the groundwater table, similar to the existing licence. No increase in annual tonnage shipped.
 - No increase in annual tonnage shipped.
 - During operations, the proposed extraction will make use of the existing infrastructure, including the entrance/exit and internal haul route.
 - There will be no truck traffic on Sideroad 25.
 - No fuel storage or processing on the Site.
 - The final rehabilitation plan for the Site will consist of a lake surrounded by nearshore, riparian and upland habitats.
- Technical studies have been undertaken to assess potential impacts and support the Site application.

Preliminary Project Location



Why This Site?

- This Site contains approximately 3 to 4 million tonnes of high-quality sand and gravel resources.
- The area is recognized in provincial geological mapping as having some of the highest quality sand and gravel in the Wellington area.
- Provincial and County of Wellington policies protect these significant resources.
- Similar to the existing Lanci Pit, processing will not take place on the Site. The aggregate will be extracted and processed at CBM's Aberfoyle South Pit, located between Highway 401 and Concession 2.
- This plant produces high quality materials in a close to market location including sand and gravel meeting concrete and asphalt specifications, crushed stone, granular and sand products.



Aberfoyle South processing site (McNally Pit).

Technical Studies

Hydrogeology

Surface Water Resources

Natural Environment

Noise

Archaeology

Land Use Planning

- Technical studies have been completed for these disciplines in accordance with the Aggregate Resources Act (ARA) and the Planning Act requirements.
- Field studies were initiated in 2017 and have been on-going since that time.
- The studies also assessed potential effects of the project on the environment and the community and identified mitigation requirements.

Technical Studies - Findings

Hydrogeology



- The hydrogeology field program had the objectives of characterizing hydrogeologic conditions, including: geologic units and their characteristics, groundwater levels and quality.
- Similar to the existing licence, the operation will not involve any pumping or active dewatering. Groundwater will eventually return to the aquifer via passive drainage.
- An assessment of potential impacts of the proposed extraction on groundwater was completed.
- The study concluded:
 - Groundwater flow is generally to the west-southwest and depth to groundwater ranges from 8 to 11 m.
 - Below-water aggregate extraction will result in the eventual creation of a permanent pond that will flatten water levels in its vicinity.
 - No adverse impacts to baseflow at groundwater receptors or water quantity at surrounding private wells are expected.
- Water level monitoring is ongoing and will continue through operations until rehabilitation has been completed.

Technical Studies - Findings

Surface Water Resources

- Multiple Site visits confirmed that there are no permanent surface watercourses on the Site.
- Surface water levels were monitored off-site on adjacent lands.
- The annual water balance for the Site was determined for current conditions, and then calculated for operational and rehabilitated conditions.
- During operations, because material is being removed from the Site, the direct infiltration of water will decrease, and the amount of runoff will increase compared to current conditions. However, runoff will end up in the lake that is being created, thus increasing overall site infiltration.
- Following rehabilitation of the Site, there will be little change to surface water compared to operational conditions.
- There will be no adverse impacts to Mill Creek.



Technical Studies - Findings

Natural Environment

- The following natural environment surveys were completed on the Site:
 - Species at risk
 - Breeding birds
 - Bat habitat, active monitoring, and acoustics
 - Wildlife Visual Encounter Surveys (VES)
 - Ecological Land Classification (ELC)
 - Botanical inventory
 - Woodland boundary (dripline) delineation
- The extraction area was designed to avoid the significant woodland on the southern portion of the Site. The boundary of the woodland was determined in conjunction with the Township of Puslinch's ecologist.
- There are no rare or species at risk plants or plant communities on the Site.
- Eastern small-footed myotis, designated Endangered under the provincial *Endangered Species Act* was detected on the Site. Consultation with the Ministry of Environment, Conservation and Parks (MECP) will be completed to identify any required approvals, or additional mitigation.



Young pine plantation – Lanci Extension site

Technical Studies - Findings

Noise



Young site regeneration – Lanci Pit Expansion area

- Baseline noise levels were measured at the Site in order to determine what the background noise levels should be considered for the area.
- The closest residential receptors to the Site were identified as being representative of the most sensitive to potential noise generated as a result of future Site activities. These residential receptors are identified as Points of Reception (POR) within the vicinity of the Site.
- A noise impact assessment was completed based on the equipment that will be used on the Site in order to determine if noise mitigation measures would be needed.
- Implementation of noise control mitigation measures (i.e., strategically located berms) was identified.
- With the berms in place, the noise controls, including noise barriers, the noise levels predicted at the PORs are expected to be at, or below, the Ministry of Natural Resources and Forestry (MNRF) and MECP noise guidelines.

Technical Studies - Findings

Archaeology

- Stage 1 and Stage 2 Archaeological Assessments were completed on the Site, in consultation with Indigenous Communities.
- The Stage 2 assessment resulted in the identification of no artifacts.
- The cultural heritage value of the Site was determined to be low since the Site is currently disturbed and because no artifacts were identified during the archaeological field surveys.
- The Ministry of Heritage, Sport, Tourism and Culture Industries has approved the Stage 1 and Stage 2 Archaeological Assessment reports.



Archeology crew in action – Golder

Technical Studies - Findings

Land Use Planning



- A Planning Report was prepared to review and assess the proposed pit relative to provincial, Wellington County (the County) and Township of Puslinch (the Township) land use planning policies and regulations.
- The Site is designated Secondary Agricultural and Greenlands and is located within the County's Mineral Aggregate Resource Overlay which are areas of high potential for aggregate extraction.
- To permit extraction on the Site, applications to amend the County's Official Plan and Township Zoning By-law have been submitted.
- The proposed pit makes significant aggregate resources available in a close to market location which minimizes social and environmental impacts.
- The Planning Report concluded that the applications are consistent with the Provincial Policy Statement and conform to provincial and County land use policies.

Rehabilitation Plan

- The post-extraction rehabilitation plan has been designed to fit into the overall regional context and complement the existing topography and ecological features in the area.
- The key features of the final rehabilitation plan include:
 - A lake joined to the existing Lanci waterbody
 - Shallow shoreline areas that include diverse aquatic, shallow shoreline and wetland habitats that will be planted with appropriate native species
 - Habitats that will support aquatic species (i.e., fish) and semi-aquatic wildlife such as turtles and waterfowl
 - Upland areas on the Site's side slopes that will integrate with existing natural features consisting of locally native, non-invasive species that create habitat in the short term and promote longer-term natural succession
 - Diverse contours that will integrate natural heritage and limited residential building opportunities after aggregate operations are completed
 - Management of forest edges and minimization of cleared areas between the extraction area and the deciduous forest to the south to encourage organic matter (e.g., leaf litter)



Rehabilitated area completed at CBM Roszell Pit

Review of Technical Reports



- All technical reports were submitted to the Township, the County, the Grand River Conservation Authority, MECP and MNRF.
- These agencies will use their own experts and specialists to evaluate the technical assessments and determine if they agree with the findings in the reports.
- Approval on the technical reports is needed from the Township, the County and the MNRF before any extraction on the Site can begin.

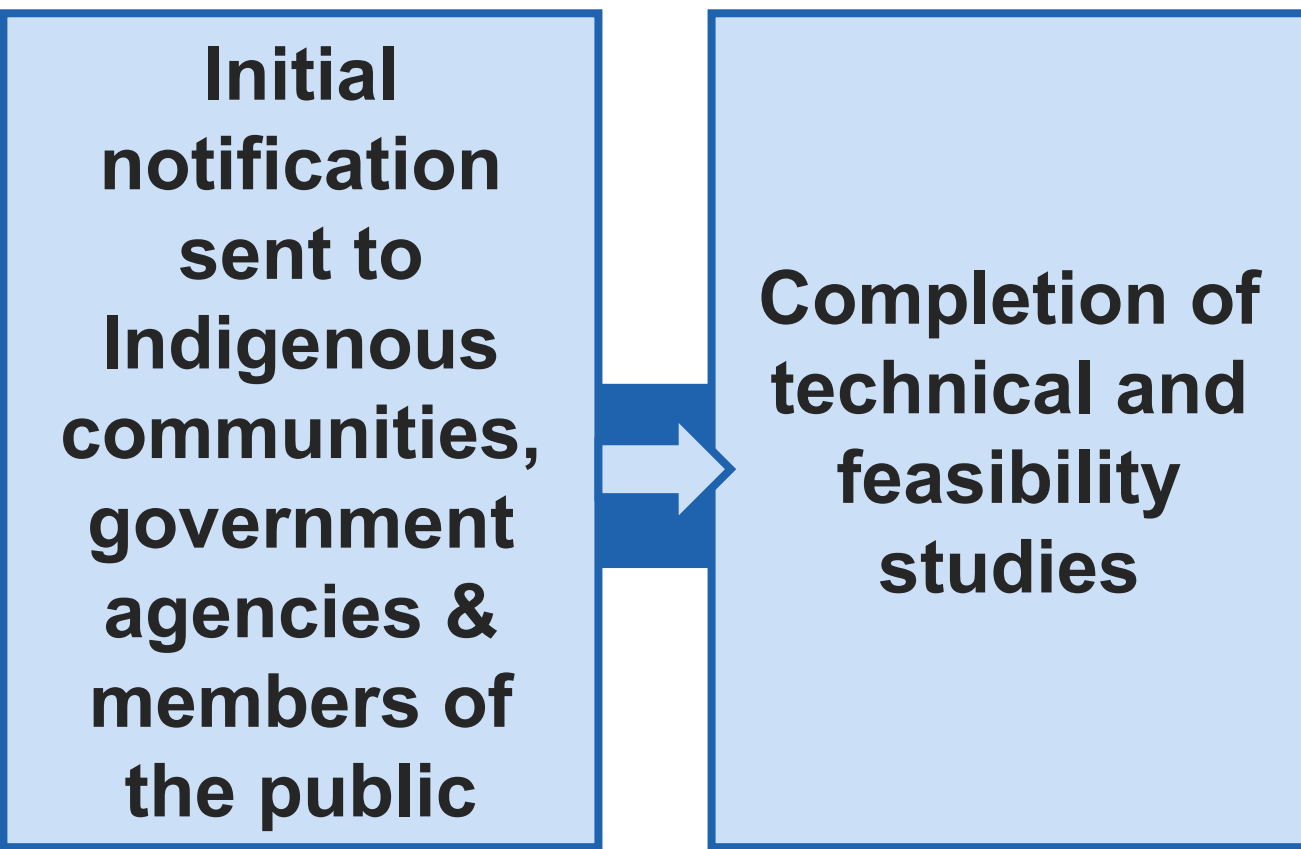
Formal Approval Process for an Aggregate Licence

The project will require approvals under the *Planning Act* and the *Aggregate Resources Act*. These approval processes are concurrent, however, the pace of the process can vary.

Formal Approval Process

PLANNING ACT: OFFICIAL PLAN AND ZONING BY-LAW AMENDMENT PROCESS

Preconsultation with the Region, Conservation Authority, and Town	Preparation of all Required Technical Reports	Application Submitted to the Town	Town circulates the application to departments and agencies for review	Town Council statutory public meeting	Town staff reviews all information and prepares a report and recommendation to approve or deny the application	Council makes a decision	LPAT appeal period (20 days after the decision)
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Ongoing Consultation

AGGREGATE RESOURCES ACT (ARA): LICENCE APPLICATION PROCESS (Ministry of Natural Resources and Forestry - MNRF)

Preconsultation with MNRF	Preparation of Technical Reports, Site Plans and Summary Statement	Application Submitted to MNRF	Application deemed Complete by MNRF, Notice is posted on the Environmental Registry (EBR)	CBM initiates the notification and consultation process (registered letter to residents, sign on property, notice in local newspapers)	CBM works to address comments and resolve issues raised during the comment period	At the end of the 2 year process or before, CBM documents the process and submits to MNRF	MNRF makes a decision on the applications. Where there are unresolved objections, MNRF refers the application to LPAT
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Who is CBM Aggregates?



- St Marys Cement Inc. (Canada) is a leading supplier of cement, concrete and aggregates used to support modernization and infrastructure development and improvements in Ontario.
- Its concrete and aggregate divisions operate under the names CBM Ready Mix and CBM Aggregates (CBM).
- CBM safely operates nearly 60 licenced aggregate pits and quarries in Ontario.

- CBM has a long history of working closely with communities to minimize the influence of our operations, manage environmental effects and maximize our positive contribution to the communities in which we operate.
- CBM and St Marys Cement Inc. (Canada) are part of the North American operations of international building materials supplier, Votorantim Cimentos.



CBM Community Involvement

- CBM has a positive history of working with our neighbours to understand how our operations can seamlessly be part of the communities in which we operate. We continuously look to incorporate practices and technology into our daily operations that minimize the influence our business could have on our neighbours and the environment.
- CBM supports local businesses and involves the community through neighbourhood events and site tours.
- CBM also supports the environment through progressive rehabilitation efforts on our sites and initiatives such as tree planting and roadside litter clean-up with community groups.
- Corporate participation in key charitable initiatives includes CBM's Pink Cement Mixer campaign for Breast Cancer Awareness and the Becel Ride for Heart and Stroke.
- Locally, CBM is involved with the Mill Creek Stewardship Rangers, Friends of Mill Creek, and various material donations to support local building needs
- CBM also supports learning opportunities with local schools (Puslinch Public School) and various universities such as University of Guelph and University of Waterloo.



CBM Breast Cancer Awareness truck at special event

The Local Need for Aggregate

- CBM's Aberfoyle operations are a key, close to market supply of high-quality aggregate materials locally and into the western Greater Toronto Area (GTA)
- The GTA alone uses over 50 million tonnes of aggregate annually, and demand is growing there and locally.
- The price of aggregates is highly influenced by transportation costs.
- Ontario is experiencing a shortage of high-quality aggregate resources located close to local markets, which drives up the cost of infrastructure investments across Ontario and in the GTA.
- CBM continues to look at all available, environmentally responsible options to address this shortage.



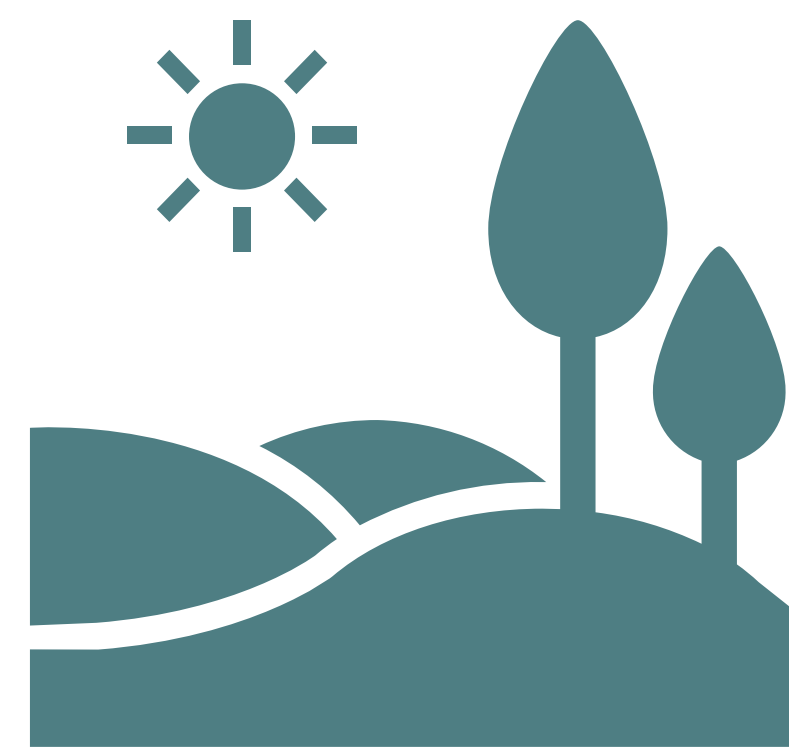
Dragline and off-road truck at CBM Neubauer Pit

Aggregates in Our Lives

What is Aggregate?

Aggregate is stone, sand and gravel used in construction and products in everyday life. It is used in everything from the buildings we live and work in, to the toothpaste we use daily. Aggregates are the foundation of our economy – an impressive contribution for something as small as a grain of sand.

On average, approximately 164 million tonnes of aggregate are used in Ontario each year. That's about 12 tonnes annually per person



Where Does Aggregate Come From?

Aggregates are only found in places where nature put them.

- When solid rock material is extracted for aggregate it is called a **quarry**.
- **Pits** are located in areas where glaciers left deposits of sand and gravel.
- Pits and quarries operate above and/or below the groundwater table.



Aggregates in Our Lives



Aggregate Use in Numbers

- The average brick home requires 250 tonnes of aggregate (12 truckloads).
- The average school needs 13,000 tonnes of aggregate (650 truckloads).
- One kilometre of a six-lane road uses 51,800 tonnes of aggregate (2,590 truckloads).
- One kilometre of a subway needs 91,200 tonnes of aggregate (4,560 truckloads).



Gravel Facts

- 90% of all aggregates are used within 80 km of where they are produced.
- In Ontario, 745,454 tonnes of stone, sand and gravel are delivered to job sites each day.



Stone, Sand & Gravel Economics and Jobs

- The industry contributes \$1.6 billion to Ontario's GDP.
- Virtually every job and every home in Ontario relies on stone, sand and gravel.
- Annual contribution of aggregate to the Ontario GDP \$1.6 billion.
- The aggregate industry creates 7,000 direct jobs and 34,000 indirect jobs.
- Approximately 4 additional jobs created for each quarry job in related fields: environmental consultants, equipment manufacturers, and more.



Protecting the Environment

- Aggregate industry is one of the cleanest, and highly regulated industries in Ontario.
- 25 pieces of legislation protect environment and future resources.
- Producers often go beyond requirements to protect wildlife.
- 293+ hectares of aquatic habitat created in rehabilitated pits and quarries.
- 1000+ hectares rehabilitated to nature, agricultural and recreational use each year.



Where is Aggregate Used?

Discover how stone, sand and gravel are used in rural, urban and suburban environments with the infographics below

FIREPLACE (STONE OR BRICK):

- Chimney
- Interior fireplace façade
- Mantle

ROOFING MATERIALS:

- Clay or asphalt shingles (includes filler plus grit on surface)

WINDOWS:

- Glass in buildings and cars, etc.

YARD AND FIELDS:

- Culverts on open roads with open ditches and on field entrances
- Rip rap to stop erosion of these ditches
- Horse track and barnyard
- Acid neutralization agents for farmers' fields
- Fertilizers

HOME AND OUTBUILDING STRUCTURES:

- Building foundation
- Bricks & mortar, stone, and/or stucco exterior
- Concrete block support walls in basement
- Fiberglass insulation (sand)
- Drywall (gypsum)

HOME INTERIOR (CONSUMER PRODUCTS):

- Glassware
- CorningWare
- Ceramic plates, vases, etc.
- Clay in porcelain for sinks and toilets
- Tiles for bathroom and kitchen
- Glass in mirrors
- Cosmetics
- Toothpaste
- Paint
- Cleaning agents
- Paper
- Chewing gum
- Aggregate used to produce plastic and vinyl products

BUILDING BEDDING & SEPTIC:

- Compacted gravel bed below house, barn and other outbuildings
- Bedding and fill for water pipes
- Septic and leaching beds (requires approximately 200 to 400 tonnes of septic sand to construct)

ROADWAYS:

- Gravel driveways leading to house
- Service driveways leading to fields

HARDSCAPING:

- Decorative armour stone
- Stone retaining walls for gardens
- Water features and fish ponds
- Stone or concrete walkways and paths
- Clay pots for plants

OTHER STRUCTURES AND FOUNDATIONS:

- Foundations for agricultural wind turbines
- Concrete silos
- Wells

RECREATION:

- Gravel on baseball diamonds
- Gravel or sand in playgrounds
- Sand for sand boxes
- Skateboard and bike parks
- Bike and walking trails

PAVED ROADWAYS & EXTERIOR INFRASTRUCTURE:

- Paved driveways
- Paved parking lots
- Curbs in parking lots, driveways and on roads
- Street lamp bases

ROOFING MATERIALS:

- Tar roof with stone layer

WINDOWS:

- Glass in buildings, cars, subways, etc.

BUILDING INTERIOR (CONSUMER PRODUCTS):

- Glassware
- CorningWare
- Ceramic plates, vases, etc.
- Clay in porcelain for sinks and toilets
- Tiles for bathroom and kitchen
- Glass in mirrors
- Cosmetics
- Toothpaste
- Paint
- Cleaning agents
- Paper
- Chewing gum
- Aggregate used to produce plastic and vinyl products

HARDSCAPING:

- Decorative armour stones
- Stone retaining walls for gardens
- Water features
- Stone and concrete walkways and paths
- Clay pots for plants

BUILDING STRUCTURE (CONCRETE AND BRICK):

- Building foundation
- Exterior brick or concrete blocks
- Mortar
- Columns
- Underground parking lots
- Concrete roof
- Balconies
- Floors
- Interior walls
- Drywall (gypsum)
- Fiberglass insulation (sand)

SUBWAY AND STREETCAR SYSTEMS:

- Concrete tunnels and platforms
- Gravel around tracks

WATER:

- Municipal water that enters building is filtered through a purification system that uses aggregate

BUILDING BEDDING:

- Compacted gravel bed below building, including bedding and fill for water, sewer and storm drain pipes

RECREATION:

- Concrete for swimming pools
- Sand boxes and sand under swing set

FIREPLACE (STONE OR BRICK):

- Chimney
- Interior fireplace façade
- Mantle

ROOFING MATERIALS:

- Asphalt shingles (includes filler plus grit on surface)

WINDOWS:

- Glass in buildings, cars, subways, etc.

PAVED ROADWAYS & EXTERIOR INFRASTRUCTURE:

- Paved driveways
- Paved parking lots for business and retail
- Curbs in parking lots, driveways and on roads
- Sidewalks
- Storm drains
- Street lamp bases

HOME INTERIOR (CONSUMER PRODUCTS):

- Glassware
- CorningWare
- Ceramic plates, vases, etc.
- Clay in porcelain for sinks and toilets
- Tiles for bathroom and kitchen
- Glass in mirrors
- Cosmetics
- Toothpaste
- Paint
- Cleaning agents
- Paper
- Chewing gum
- Aggregate used to produce plastic and vinyl products

HARDSCAPING:

- Decorative armour stone
- Stone retaining walls for gardens
- Water features and fish ponds
- Stone or concrete walkways and paths
- Clay pots for plants
- Concrete to anchor fence posts and deck structures

WATER:

- Municipal water that enters building is filtered through a purification system that uses aggregate

BUILDING BEDDING:

- Compacted gravel bed below building, including bedding and fill for water and sewer pipes

HOME STRUCTURE:

- Building foundation
- Bricks & mortar, stone, and/or stucco exterior
- Concrete block support walls in basement
- Fiberglass insulation (sand)
- Drywall (gypsum)

Rural Environment

Urban Environment

Suburban Environment

Contact Information

We want to hear from you!

CBM is committed to keeping the community informed about the Project.

If you have any questions or comments about the proposal,

Contact us by phone or e-mail:

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