

# Economic Benefits of the Proposed Duntroon Quarry Expansion



**Altus Clayton**

# **Economic Benefits of the Proposed Duntroon Quarry Expansion**

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## EXECUTIVE SUMMARY

Altus Clayton was commissioned by Walker Industries to undertake an analysis of the potential economic benefits associated with the proposed Duntroon Quarry expansion, which is proposed to be developed following depletion of the aggregate resource at the existing quarry, in the Township of Clearview. The quarry expansion is expected to have substantial benefits in terms of generating revenues for the Township of Clearview, Simcoe County and the Province of Ontario, as well as generating local employment opportunities and spin-off spending to other local businesses, as summarized below.

<b>Employment</b>	<p><b>35</b> person-years of employment during the site preparation stage</p> <p><b>37</b> permanent full-time jobs at the quarry</p> <p><b>45</b> trucking jobs</p>
<b>Township of Clearview Revenues</b>	<p>Property taxes: about <b>\$12,400</b> in municipal property taxes per year (in 2007 dollars), or about <b>\$310,000</b> over the 25 year life of the quarry</p> <p>Aggregate license fee: <b>\$108,000</b> per year or about <b>\$2.7 million</b> over the quarry life</p>
<b>Simcoe County Revenues</b>	<p>Property taxes: about <b>\$7,800</b> in County property taxes per year, or about <b>\$195,000</b> over the life of the quarry</p> <p>Aggregate license fee: <b>\$27,000</b> per year or about <b>\$675,000</b> over the quarry life</p>
<b>Province of Ontario Revenues</b>	<p>Incomes taxes: about <b>\$86,000</b> in provincial personal income taxes during site preparation and about <b>\$234,000</b> per year related to the permanent jobs; corporate income taxes also would be payable</p>

	<p>Aggregate license fee: <b>\$63,000</b> per year or about <b>\$1.6 million</b> over the quarry life</p> <p>PST: about <b>\$1.2 million</b> per year in PST related to the purchase of the aggregate from the quarry; in addition, about <b>\$48,000</b> during the site preparation stage and about <b>\$180,000</b> per year during the operation of the quarry related to material and supplies purchased by the quarry</p>
<p><b>Indirect Financial Benefits for Township of Clearview, Simcoe County and Local Residents</b></p>	<p>Close by aggregate supply for own building programs</p> <p>Voluntary contributions made by the quarry (e.g. community events sponsorships, fundraising campaigns, etc.)</p>
<p><b>Boards of Education</b></p>	<p>About <b>\$27,400</b> per year will be generated in education taxes (or about <b>\$685,000</b> over the life of the quarry), without any additional financial burden on local Boards of Education</p>
<p><b>Spin-offs to Local Businesses</b></p>	<p>A portion of the estimated <b>\$4.4 million</b> in annual wages earned by quarry workers and truckers, as well as the estimated <b>\$1.7 million</b> earned by workers during the site preparation stage, will be spent locally</p> <p>A portion of the estimated <b>\$2.25 million</b> spent annually by the quarry on operating supplies and services will be done locally</p>

**Employment Impacts**

- It is expected that approximately 37 persons will be permanently employed on-site when the quarry is fully operational, and an additional 45 trucking jobs will be needed, for a total of 82 jobs. Most of the jobs are expected to be filled by residents of Simcoe County.

- The site preparation for the quarry expansion is estimated to generate approximately 35 person-years of temporary employment: 23 person-years directly related to the on-site work and a further 12 person-years of employment in the supporting industries that produce the materials, equipment and services used during the site preparation stage. The majority of this employment is expected to be filled by residents of Simcoe County.

### **Township of Clearview Revenues**

- The quarry expansion will generate substantial direct revenues for the Township of Clearview.
- It is estimated that the quarry expansion will generate taxation revenue for the Township of Clearview of about \$12,400 per year (in 2007 dollars), or about \$310,000 over the 25 year life of the quarry.
- In addition, revenues will be generated through the aggregate licence fee, at a rate of 6.0 cents per tonne of aggregate produced. When fully operational, the quarry is expected to produce about 1.8 million tonnes of aggregate per year, which translates into annual revenue for the Township of Clearview of \$108,000 or about \$2.7 million over the life of the quarry.
- Total revenues for the Township of Clearview therefore over the life of the quarry are estimated at about \$3 million (in 2007 dollars).

### **Simcoe County Revenues**

- The quarry expansion will generate direct revenues for Simcoe County.
- It is estimated that the quarry will generate taxation revenue for Simcoe County of about \$7,800 per year (in 2007 dollars), or a total of about \$195,000 over the life of the quarry.
- In addition, revenues will be generated through the aggregate licence fee, at a rate of 1.5 cents per tonne of aggregate produced. When fully operational, the quarry is expected to produce about 1.8 million tonnes of aggregate per year, which translates into annual revenue for Simcoe County of \$27,000 or about \$675,000 over the life of the quarry.
- Total revenues for Simcoe County therefore over the life of the quarry are estimated at about \$870,000 (in 2007 dollars).

### **Province of Ontario Revenues**

- The quarry expansion will generate substantial direct revenues for the Province of Ontario.
- Personal incomes taxes will be generated by the wages earned during the site preparation stage (about \$86,000), and the on-going operation of the quarry (over \$234,000 per year or about \$5.8 million over the life of the quarry). Additional corporate income taxes will be payable, and will be dependent on the revenues, cost and profitability profile of the operation.
- The Province's share of the aggregate license fee will generate another \$63,000 per year or about \$1.6 million over the 25 year life of the quarry.
- Provincial sales tax (PST) payable on the aggregate sold from the quarry is estimated at about \$1.2 million per year or about \$28.8 million over the life of the quarry.
- PST revenues will also be generated from the purchase of materials and supplied during the site preparation stage and the on-going operation of the quarry. PST of about \$48,000 is expected from the site preparation stage and about \$180,000 per year during the on-going operation of the quarry (or about \$4.5 million over the life of the quarry).
- Total revenues for the Province generated over the life of the quarry therefore are estimated at about \$41 million (in 2007 dollars).

### **Indirect Economic Benefits for the Township of Clearview, Simcoe County and Its Local Residents**

- The stone available from the proposed Duntroon Quarry expansion will provide close to market supply for the Town and Region's own building programs. As transportation costs can comprise a significant proportion of the delivered cost of aggregate, close by supply provides a cost advantage.
- The aggregate industry in Ontario contributes back to the local communities in various forms of donations, sponsorships, etc. In conjunction with its current quarry operation, Walker Industries is active in this respect, and is expected to continue to be if the quarry expansion is permitted.

### **Boards of Education**

- The quarry expansion is expected to generate about \$27,400 in additional education property taxes (in 2007 dollars) per year (about \$685,000 over the life of the quarry), without imposing any additional burden on the school systems.
- These revenues are generated to the Province, but will contribute to the pool of education tax revenues that are then reallocated to local school boards, including those in the Township of Clearview.

### **Spin-offs to Local Businesses**

- It is estimated that the on-going quarry and trucking jobs will generate about \$4.4 million per year in wages, and that the temporary jobs created during the site preparation stage will generate another \$1.7 million in wages. These wages will generate spending on goods and services locally within Simcoe County.
- The on-going operation of the quarry is expected to require purchases of goods and services in the amount of about \$2.2 million annually, a large portion of which would occur locally.

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## INTRODUCTION

Altus Clayton was commissioned by Walker Industries to undertake an analysis of the potential economic benefits associated with the proposed Duntroon quarry expansion, which is proposed to be developed following depletion of the aggregate resources at the existing quarry in the Township of Clearview.

The quarry expansion site encompasses 127 hectares, with a proposed excavation area of about 68.3 hectares. When the quarry is fully operating, it is expected to have about 37 on-going employees, with annual stone production of about 1.8 million tonnes per year. The expected life of the quarry is 25 years.

The proposed quarry expansion is expected to have substantial direct and indirect economic benefits for governments, local businesses and local residents in terms of the following<sup>1</sup>:

- Employment, both during construction and permanent jobs created once the quarry is operational;
- Contribution to the Township of Clearview's revenues through property taxes and aggregate license fees;
- Contribution to Simcoe County's revenues through property taxes and aggregate license fees;
- Contributions to the Province's revenues, through provincial sales taxes, income taxes and aggregate license fees;
- Indirect financial benefits to the Township of Clearview and Simcoe County and local residents;
- Indirect benefits for local Boards of Education; and
- Spin-off benefits to local businesses.

<sup>1</sup> The analysis in this report measures the total benefits generated by the site, operating as a quarry, rather than the net additional benefits of the site relative to the benefits generated by the site from its current uses, or by this proposed quarry site relative to the existing quarry.

## EMPLOYMENT IMPACTS

There are two aspects to the employment benefits: temporary jobs created during the site preparation stage and on-going employment once the quarry is operational.

### Employment Generated During Site Preparation

The site preparation will generate work both directly and indirectly. Directly, jobs are created in the engineering construction industry; indirectly, work is generated in the industries that support the engineering construction industry with materials, equipment and other inputs that the site preparation requires.

For every \$1 million spent on engineering construction, it is estimated that about 7.6 direct person-years of employment and 4 indirect person-years of employment are generated. The estimated \$3 million that will be spent on the site preparation therefore would generate about 35 person-years of employment: 23 person-years in on-site work, and 12 in the supporting businesses. Most of the jobs are expected to be filled by Simcoe County residents.

Figure 1

#### Estimated Employment Generated from Site Preparation, Proposed Duntroon Quarry Expansion

Estimated Site Preparation Costs	Person-Years of Employment Generated				
	Per \$Million		Total Employment		
	Direct	Indirect	Direct	Indirect	Total
\$3,000,000	7.61	4.04	23	12	35

Source: Estimates by Altus Clayton

### On-Going Employment

The quarry expansion will also provide on-going employment benefits. It is expected that there will be about 37 full-time positions at the quarry once it is fully operational, excluding trucking.<sup>2</sup> In addition, about 45 trucking jobs would be generated, for total on-going employment of about 82 jobs.

<sup>2</sup> The on-going employment estimates here relate to extraction operations. Walker Industries also uses the existing quarry site for some head office functions. Without the quarry expansion, Walker has indicated these head office jobs would be moved to its Thorold offices when the existing quarry is depleted.

It is expected that the majority of these jobs will be filled by residents of Simcoe County.

## **TOWNSHIP OF CLEARVIEW REVENUES**

The proposed Duntroon quarry expansion will directly generate revenues for the Township of Clearview in two main areas: property taxes and aggregate license fees.

### **Municipal Property Taxes**

Local property taxes generated when the quarry expansion has been completed will be a function of the assessed value applied to the site and the applicable property tax rates.

It is not possible to determine with certainty what exactly will be the assessed value for the site, as it is ultimately the Municipal Property Assessment Corporation (MPAC) that will make that determination.

However, one can say with certainty that the assessed value of the site will be increased substantially, as part (the “disturbed” area) will be valued as industrial property rather than its current designation as residential or farm.

At the same time, industrial tax rates, which are substantially higher than residential and farm tax rates, will be applied.

Of the total quarry expansion site, a maximum of about 68.3 hectares are expected to be “disturbed” area, subject to industrial assessment and tax rates. The remainder is assumed to be classed as per its current assessment class, with portions being residential and portions farm.

Based on assessment information for the existing quarry, as well as the current assessment information for the portions likely to remain residential and farm, the estimated assessed value of the site is about \$1.9 million (see Figure 2 below).

Figure 2

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**Estimated Assessed Value for the Proposed Duntroon Quarry Expansion**

	<b>Total Value</b>
Assessed residential	\$859,000
Assessed farm	\$34,000
Assessed industrial	\$1,021,000
<b>Total</b>	<b>\$1,914,000</b>

Source: Estimates by Altus Clayton

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In the Township of Clearview, the municipal property tax rate for industrial properties for 2007 is 0.785069%, for the residential class 0.510282% and for the farm class 0.127571%.

Based on the assumed assessment values and these tax rates, the annual municipal property tax revenues from the quarry expansion in 2007 dollars are estimated at approximately \$12,400 per year, or about \$310,000 over the life of the quarry.

Figure 3

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**Estimated Annual Municipal Property Tax Revenues from the Proposed Duntroon Quarry Expansion**

	<b>Assessment</b>	<b>2007 Municipal Tax Rate</b>	<b>Municipal Tax Revenue</b>
	\$	%	\$
Residential	\$859,000	0.510282%	\$4,383
Farm	\$34,000	0.127571%	\$43
Industrial	\$1,021,000	0.785069%	\$8,016
<b>Total</b>	<b>\$1,914,000</b>		<b>\$12,442</b>

Source: Estimates by Altus Clayton

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### Aggregate License Fee

From 1990 up until the end of 2006, a 6.0 cents per tonne license fee had applied to aggregate production in Ontario under the Aggregate Resources Act. Effective January 1, 2007, this fee was increased to 11.5 cents per tonne. The fee is divided as follows:

- 6.0 cents to the lower tier municipality
- 1.5 cents to the upper tier municipality

- 3.5 cent to the Province
- 0.5 cents to the Abandoned Pits and Quarries Fund (for rehabilitation purposes)

When fully operational, the proposed Duntroon quarry expansion is expected to produce about 1.8 million tonnes of aggregate per year. This translates into annual revenue for the Township of Clearview of about \$108,000 or about \$2.7 million over the expected 25 year life of the quarry.

Figure 4

Estimated Annual Production <i>tonnes</i>	Aggregate License Fee Rate		Total Aggregate License Fees Revenue, Town of Clearview
	Total <i>per tonne</i>	To Town	
1,800,000	\$0.115	\$0.060	\$108,000

Source: Altus Clayton

## SIMCOE COUNTY REVENUES

The proposed Duntroon quarry expansion will directly generate revenues for Simcoe County in two main areas: property taxes and aggregate license fees.

### County Property Taxes

In Simcoe County, the county portion of the property tax rate for industrial properties for 2007 is 0.490697%, for the residential class 0.318945% and for the farm class 0.079736%.

Based on the assumed assessment values and these tax rates, the estimated annual County property tax revenues from the quarry are estimated at approximately \$7,800 per year in 2007 dollars, or about \$195,000 over the 25 year life of the quarry.

Figure 5

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**Estimated Annual County Property Tax Revenues  
from the Proposed Duntroon Quarry Expansion**

	<b>Assessment</b> \$	<b>2007 County Tax Rate</b> %	<b>County Tax Revenue</b> \$
Residential	\$859,000	0.318945%	\$2,740
Farm	\$34,000	0.079736%	\$27
Industrial	\$1,021,000	0.490697%	\$5,010
<b>Total</b>	<b>\$1,914,000</b>		<b>\$7,777</b>

Source: Estimates by Altus Clayton

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**Aggregate License Fee**

As discussed earlier, 1.5 cents of the total 11.5 cents per tonne of aggregate produced license fee goes to the County. When fully operational, the proposed Duntroon quarry expansion is expected to produce about 1.8 million tonnes of aggregate per year. This translates into annual revenue for Simcoe County of about \$27,000 or about \$675,000 over the expected 25 year life of the quarry.

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**Estimated Annual Aggregate License Fees Generated from the  
Proposed Duntroon Quarry Expansion**

<b>Estimated Annual Production</b> <i>tonnes</i>	<b>Aggregate License Fee Rate</b>		<b>Total Aggregate License Fees Revenue, Simcoe County</b>
	<b>Total</b> <i>per tonne</i>	<b>To County</b>	
1,800,000	\$0.115	\$0.015	\$27,000

Source: Altus Clayton

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**PROVINCE OF ONTARIO REVENUES**

The proposed Duntroon quarry expansion will generate revenues for the Province of Ontario in three main areas: income tax, aggregate licenses fees and provincial sales tax.

## Income Tax

Personal income tax revenues will be generated from the wages earned by the workers employed during the site preparation stage and by the workers employed on an on-going basis at the quarry and in the associated trucking jobs.

Applicable wage rates for workers in the aggregate sector were applied to the jobs generated during the site preparation stage to generate total wages. Estimates of average taxable income and applicable Provincial tax rates were then applied to these total wage estimates to derive the income tax payable.

Estimated total wages earned during the site preparation stage are about \$1.7 million. Total personal Provincial income taxes payable on these wages are estimated at about \$86,000.

For the on-going employment (including trucking), total wages are estimated at about \$4.4 million per year, with estimated Provincial income taxes per year of about \$234,000.

There will also be corporate income taxes payable. These will depend on the revenue, cost and profitability situation of the operation, and have not been estimated here.

## Aggregate License Fee

As discussed earlier, 3.5 cents of the total 11.5 cents per tonne of aggregate produced license fee goes to the Province. At an estimated 1.8 million tonnes annual production for the proposed quarry expansion, that would result in annual revenue of \$63,000 or \$1.6 million over the expected life of the quarry.

Figure 6

### Estimated Annual Aggregate License Fees Generated from the Proposed Duntroon Quarry Expansion

Estimated Annual Production <i>tonnes</i>	Aggregate License Fee Rate		Total Aggregate License Fees Revenue, Province of Ontario
	Total <i>per tonne</i>	To Province	
1,800,000	\$0.115	\$0.035	\$63,000

Source: Altus Clayton

## **Provincial Sales Tax (PST)**

Provincial sales tax (PST) of 8% will be payable on the aggregate sold from the quarry as well as on materials and supplies during the site preparation stage and on-going quarry operations.

Assuming an average price of \$8 per tonne, the expected annual production of 1.8 million tonnes per year could generate about \$1.15 million per year in PST revenues for the Province.

Given the physical nature of the site preparation, the materials component of the costs is not expected to be substantial. Assuming 20% of the total site preparation costs of \$3 million is comprised of materials and equipment, the total PST payable would be about \$48,000.

Based on industry statistics, an operation of the proposed size would likely require material and supply inputs of about \$1.25 per tonne of aggregate produced. For the expected 1.8 million tonnes per year, this would translate into material and supply costs of about \$2.25 million per year, and would generate about \$180,000 per year in PST.

## **INDIRECT FINANCIAL BENEFITS FOR THE TOWNSHIP OF CLEARVIEW, SIMCOE COUNTY AND LOCAL RESIDENTS**

There are several other benefits that would accrue to the Township of Clearview, Simcoe County and the local residents as discussed below.

### **Close Supply of Aggregate for Own Building Programs**

The stone available from the proposed Duntroon Quarry expansion will provide close to market supply for the Township and County's own building programs. As transportation costs can comprise a significant proportion of the delivered cost of aggregate, close by supply provides a cost advantage.

### **Voluntary Contributions**

The aggregate industry in Ontario contributes back to the local communities through various forms of donations, sponsorships, etc. In conjunction with its current quarry operation, Walker Industries is active in this respect contributing roughly \$10,000-\$15,000 per year, and is expected to continue to do so in association with the quarry expansion.



## BOARDS OF EDUCATION

In addition to Township and County property taxes outlined earlier, there is another layer of property taxation - the education property tax component. These taxes are generated to the provincial government, who then allocate funds throughout the province (not necessarily in proportion to the amounts paid within each municipality). While not direct revenues for the local boards of education, ultimately they share in the availability of these funds.

The same assessment base is used as for the municipal property taxes (refer back to Figure 2) but the tax rates differ, as shown in Figure 7.

Figure 7

### Estimated Annual Education Property Tax Revenues from the Proposed Duntroon Quarry Expansion

	Assessment \$	2007 Education Tax Rate %	Education Tax Revenue \$
Residential	\$859,000	0.26400%	\$2,268
Farm	\$34,000	0.06600%	\$22
Industrial	\$1,021,000	2.45733%	\$25,089
Total	\$1,914,000		\$27,380

Source: Estimates by Altus Clayton

Almost \$27,400 in education property taxes is expected to be generated each year by the quarry, or about \$685,000 in 2007 dollars over the 25 year life of the quarry.

## SPIN-OFF BENEFITS TO LOCAL BUSINESSES

Local businesses will benefit from sales associated with spending done by quarry employees and the quarry itself as part of its normal operation.

### Spending by Workers on Local Goods and Services

The wages paid to the 82 on-going employees (37 full-time employees at the quarry, and the 45 truck drivers) are estimated to be about \$4.4 million annually, based on Statistics Canada information on the wages in the stone quarrying industry in Ontario.

In addition, about \$1.7 million in wages will be earned by the workers employed during the site preparation stage.

These wages will generate spending on goods and services. As the majority of these workers are expected to be local residents, they can be expected to do a large portion of their spending on these goods and services within the Township of Clearview and Simcoe County.

### **Spending Related to Quarry Operations on Local Goods and Services**

Based on information from Statistics Canada, the average spending on operating supplies and services (excluding contracted out trucking) by Ontario firms in the quarry industry is about \$1.25 per tonne of stone produced. Based on the expected production of about 1.8 million tonnes per year at the proposed quarry expansion, that would translate into total annual spending on operating supplies and services of about \$2.25 million.

It is expected that a large portion of this spending will be done locally within the Township of Clearview and Simcoe County.

### **CONCLUSION**

The total revenues generated by the proposed Duntroon Quarry expansion over the 25 year life of the quarry are expected to be substantial:

- Township of Clearview – approximately \$3 million (in 2007 dollars)
- Simcoe Country – approximately \$870,000 (in 2007 dollars)
- Province of Ontario – approximately \$41 million (in 2007 dollars)

The quarry expansion will also provide employment opportunities, many of which will be filled by residents of Simcoe County.

In addition, there are other indirect benefits that would accrue to the Township of Clearview and Simcoe County, as well as the local residents, including:

- The price advantage of close by supply of aggregate for governments' own building programs;
- Voluntary donations and sponsorships to the local communities by Walker Industries;

- Generation of education taxes, which will indirectly benefit local school boards without any additional burden on the school systems; and
- Spin-off impacts to local businesses through the wages spent by the quarry workers, and spending related to the quarry operations.