

## IMPORTANCE OF AGGREGATE

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## ***What is Aggregates***

- It's a non-renewable resource which we use and benefit from everyday.
- We live and work in buildings built with aggregate.
- Our children go to schools built with aggregate
- We reach our destinations on roads and highways constructed from aggregate.
- Even the water we drink is filtered and purified by aggregate.

## ***Everyone has a stake in this resource***

In Ontario, the actual usage for every man, woman and child is more than 14 tonnes per year - the equivalent of a tandem dump truck load.

In a \$30 billion construction industry, the value of aggregate is approximately \$1 billion.

In addition to business and property taxes, the aggregate industry has directly contributed more than \$550 million to local and regional governments through the *Aggregate Resource Act* licence fee since 1990.



## ***Use of Aggregates***

We need aggregate to meet our basic needs for home and office buildings, bridges, roads and highways, institutions, public transit ways, services, consumer goods and environmental protection.

- Over 440 tonnes of aggregate which (22 truck loads) are used in the construction of every house. Aggregate is used for foundations, concrete blocks, brick, mortar, shingles, steel, glass and asphalt.
- A small school uses approximately 13000 tonnes of aggregate or 650 truck loads.
- An office tower uses 16,000 tonnes of aggregate or 800 truck loads.
- The construction of one kilometer of a six-lane expressway requires 51,800 tonnes of aggregate or 2,590 truck loads.

## **Employment**

Almost every job in Ontario makes use of or depends on the aggregate industry. We drive to work on roads constructed with asphalt, concrete, crushed stone or gravel. Our office buildings are built using aggregate.

More than 7,000 people work directly in aggregate production in Ontario and more than 34,000 are employed indirectly in services such as transportation and equipment sales and services. Hundreds of thousands of jobs in the construction industry also rely on an adequate supply of aggregate products.

## **Future Growth**

Consumption of aggregate generally reflects economic growth in the province. Ontario's economy depends on maintaining a competitive supply of high quality aggregate at a reasonable cost and close to market

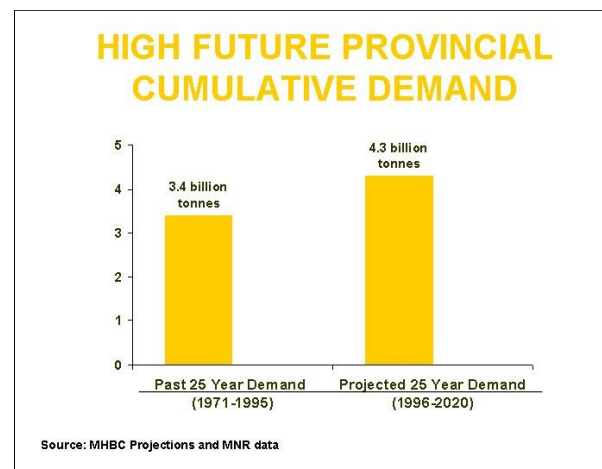
As our population grows, so too will our demand for aggregate. We will need affordable places to live and to work. Currently the projected consumption of aggregate in Ontario for the next 25 years is 4 billion tonnes (*see Chart 1*).

## **Future Supply**

We are using aggregate faster than we can develop available supplies for the future. We face the prospect of aggregate shortages. The result will be a dramatic increase in cost to Ontario consumers. Roads, schools and houses



will cost more to build. Shortages in aggregate material will suppress industrial, commercial and residential growth.



*Chart 1*

Aggregate will always be one of our basic necessities and helps form the foundation of our everyday life. We must ensure that as one of our non-renewable natural resources, aggregate is managed and used wisely to meet a variety of needs. Managed responsibly, aggregate will continue to be the foundation of our society and economy well into the future.



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### *Some aggregate fast facts ...*

- Ontario consumes an average of 170 million tonnes of aggregate annually.
- The projected consumption of aggregate in Ontario for the next 25 years is 4 billion tonnes.
- Over 50% of aggregate produced in Ontario is used by the public sector.
- 60% of the cost of aggregate is transportation.
- Every extra kilometre of roadway added to the average GTA haul increases annual greenhouse gases by 3,500 tonnes and consumes an additional 2 million litres of fossil fuel.
- Don't make gravel travel. It makes economic and environmental sense to use close-to-market aggregate deposits!



#### The "About Aggregates" series:

1. Aggregates and the Law
2. Bronze Plaque Award
3. Rehabilitation of Pits and Quarries
4. Being a Good Neighbour
5. Importance of Aggregates
6. Geology and Aggregate Extraction
7. Controlled Blasting at Quarries
8. Groundwater and the Aggregate Industry
9. Management of Abandoned Aggregate Properties (MAAP) Program



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