

The Value of the Aggregates Industry To America

- During the past 60 years, per capita consumption of aggregates has increased from 3.5 metric tons per year to over 10 tons annually—*that is just over 22,000 lbs. for every man, woman and child in America each year!*
- Production of aggregates in the U.S. went from about 351 million metric tons in 1940 to approximately 2.9 billion metric tons in 2005 valued at \$17 billion.
- Every state, virtually every Congressional District and 70% of the nation's counties are home to an aggregates operation.
- Construction of an average size school or hospital requires 15,000 tons of aggregates.
- Aggregates make up 94% of asphalt and 80% of concrete.
- Aggregates production accounts for more than half of the non-fuel mining volume in the United States.
- Only about 1% of the construction aggregates used annually in the United States is imported.
- Individual crushed stone quarries range in size from operations producing less than 50,000 tons annually to those with production of more than 10 million tons.

Source:

National Stone, Sand & Gravel Association

Aggregates are essential to maintaining the quality of American life.

Natural aggregates of crushed stone, sand and gravel and supporting industries contribute an annual total of 38 billion dollars to the U.S. economy. In 2005, North Carolina was the eighth largest crushed stone producing state in the United States.

There are more than 10,000 construction aggregates operations nationwide and approximately 635 in North Carolina (135 crushed stone, 500 sand and gravel). Proximity to market is critical due to high transportation costs.

Most all aggregate produced in North Carolina is used in North Carolina, usually within 50 miles of where it is produced. Over 90 percent of all aggregate is moved by dump truck. Truck haul costs approximately 20 to 25 cents per ton-mile.

Some aggregate is moved by railroad and a small amount is moved by barge off the Carolina Coast. Because aggregate is a heavy, low cost per ton product, haul distance largely controls the price of aggregate.

www.ncaggregates.org



The Aggregates Industry...

*producing crushed stone,
sand and gravel for
economic development and
environmental enhancement*

North Carolina
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The Aggregate Industry in North Carolina

Aggregates are construction materials of crushed stone, sand and gravel. The single largest market for aggregates is road and street construction, including base and asphalt paving for highways, parking lots and other pavements. One mile of a typical four-lane interstate highway with aggregate base requires about 38,000 tons. Other large markets are portland cement concrete for bridges, pavements and building structures, riprap and erosion control stone, and railroad ballast.

About 10 tons of aggregates are required annually for each North Carolina citizen, or about 84 million tons per year. A typical residential subdivision requires about 400 tons of aggregate per home. Approximately 50 percent of all aggregate is used for publicly funded construction projects.

Firms in the aggregate industry are vitally concerned with protecting valuable air and



water resources. Producers do this in a number of ways. They landscape with trees, shrubs, and grasses to control erosion, provide screens and buffers, and to beautify the quarry area.

Water sprayed directly onto the stone during crushing and at other stages keeps the dust down; settling ponds purify this run-off water before it is reused or enters a stream.

The North Carolina Mining Act requires all mining operations of one acre or more to obtain a North Carolina Mining permit. The permit is issued for 10 years, however, it may be revoked if all permit conditions are not followed. Many other local and state permits and environmental regulations control the operation of aggregate plants. All sites must be reclaimed before the reclamation bond will be released at the conclusion of mining.

Once reclaimed, crushed stone quarries and sand and gravel sites are desirable as water reservoirs or recreational lakes, often with residential subdivisions nearby. Beneficial land uses include wildlife habitat, agricultural

fields and lakes for a variety of uses including groundwater recharge. Wetlands are often created as a result of mining. The industry is very sensitive and responsive to its need to be a good steward of the environment and a good neighbor in the community.

The Future

A ready supply of crushed stone, sand and gravel is necessary to support future economic development. The biggest concern facing the aggregates industry in coming years is obtaining zoning favorable to the extraction of aggregates. Near urban areas where construction materials are critically needed, it is important to allow appropriate zoning and the necessary permits to assure a continued supply of aggregates.

The industry is committed to supplying cost effective construction aggregate materials and to educating the public that aggregates are essential and can be extracted in a responsible, environmentally sound manner.

