

THE MINERAL INDUSTRY OF NEW HAMPSHIRE

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the New Hampshire Department of Environmental Services for collecting information on all nonfuel minerals.

In 1997, New Hampshire ranked 47th among the 50 States in total nonfuel mineral production value,¹ according to the U.S. Geological Survey (USGS). The estimated value for 1997 was more than \$60 million, a 16% increase from that of 1996. This followed a 3.8% increase from 1995 to 1996 (based on final 1996 data). The State accounted for less than 0.5% of the U.S. total nonfuel mineral production value.

Construction sand and gravel, a high-volume, low-value mineral commodity, was New Hampshire's leading nonfuel mineral commodity, accounting for about 70% of the value. Crushed stone was the State's second leading nonfuel mineral. In 1997, the increases in both mineral commodities accounted for virtually all of New Hampshire's increase in nonfuel mineral value. In 1996, most of the State's value increase resulted from

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending on the minerals or mineral products. Production may be measured by mine shipments, mineral commodity sales, or marketable production (including consumption by producers) as is applicable to the individual mineral commodity.

All 1997 USGS mineral production data published in this chapter are estimates as of January 1998. Construction sand and gravel and crushed stone estimates are updated periodically. To obtain the most current information, please contact the appropriate USGS mineral commodity specialist. Call MINES FaxBack at (703) 648-4999 from a fax machine with a touch-tone handset, and request Document # 1000 for a telephone listing of all mineral commodity specialists, or call USGS information at (703) 648-4000 for the specialist's name and number. This telephone listing may also be retrieved over the Internet at <http://minerals.er.usgs.gov/minerals/contacts/comdir.html>. All Mineral Industry Surveys—mineral commodity, State, and country—also may be retrieved by way of MINES FaxBack or over the Internet at <http://minerals.er.usgs.gov/minerals/>.

the rise in the value of construction sand and gravel.

A variety of publications related to New Hampshire's nonfuel mineral resources and markets were available for purchase from the State government. Information regarding the cost and ordering procedures for any of these publications may be obtained through the Office of the State Geologist, or over the Internet at <http://www.state.nh.us/des/noframes/2publink.htm/>. The publications are as follows: *Construction aggregate resources of New England: An analysis of supply and demand: Boston, Mass.*, New England Governors' Conference, Inc., 1995 (both full report and executive summary); *New Hampshire sand and gravel resources: Boston, Mass.*, New England Governors' Conference, Inc., 1993, including three map sheets, scale 1:250,000; *Construction aggregate demand in the New England States: Boston, MA.*, New England Governors' Conference, Inc., 1992; and *Bibliography and Index of New Hampshire Geology* (selected from publications indexed in GeoRef data base by American Geologic Institute), New Hampshire Department of Environmental Services, Geological Survey, 1991.

Also available are several surficial geologic maps published in 1997 as open file reports (OFR): a map of the Mount Pawtuckaway quadrangle, Rockingham County, NH: NH Geologic Survey OFR-97-1, and a second map of the Penacook quadrangle, Rockingham County, NH: NH Geological Survey, OFR-97-2. Additionally, a series of peat resource maps is available.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN NEW HAMPSHIRE 1/ 2/

(Thousand metric tons and thousand dollars unless otherwise specified)

| Mineral | 1995 | | 1996 | | 1997 p/ | |
|-------------------------------|----------|--------|----------|--------|----------|--------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Clays, common | 3 | 16 | 3 | 16 | -- | -- |
| Gemstones | NA | 9 | NA | 6 | NA | 6 |
| Sand and gravel, construction | 7,190 | 34,300 | 7,620 | 36,500 | 8,690 | 42,700 |
| Stone: | | | | | | |
| Crushed 3/ | 2,150 | 9,150 | 1,430 | 8,650 | 1,800 | 11,000 |
| Dimension metric tons | 23,000 | 6,290 | 29,000 | 6,500 | 29,200 | 6,540 |
| Total 4/ | XX | 49,800 | XX | 51,700 | XX | 60,200 |

p/ Preliminary. NA Not available. XX Not applicable.

1/ Production as measured by mine shipments, sales, or marketable production (including consumption by producers).

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Excludes certain stones, values which must be concealed to avoid disclosing company proprietary data.

4/ Partial total, excludes values which must be concealed to avoid disclosing company proprietary data.

TABLE 2
NEW HAMPSHIRE: CRUSHED STONE SOLD OR USED, BY KIND 1/ 2/

| Kind | 1995 | | | | 1996 | | | |
|----------|--------------------|---------------------------------|-------------------|------------|--------------------|---------------------------------|-------------------|------------|
| | Number of quarries | Quantity (thousand metric tons) | Value (thousands) | Unit value | Number of quarries | Quantity (thousand metric tons) | Value (thousands) | Unit value |
| Granite | 3 | 974 | \$3,510 | \$3.60 | 3 | 779 | \$3,890 | \$4.99 |
| Traprock | 7 | 1,180 | 5,640 | 4.79 | 8 | 649 | 4,760 | 7.33 |
| Total | XX | 2,150 | 9,150 | 4.25 | XX | 1,430 | 8,650 | XX |

XX Not applicable.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Excludes limestone from State total to avoid disclosing company proprietary data.

TABLE 3
NEW HAMPSHIRE: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 1996, BY USE 1/ 2/

| Use | Quantity (thousand metric tons) | Value (thousands) | Unit value |
|--|---------------------------------|-------------------|------------|
| Coarse aggregates graded: | | | |
| Bituminous aggregate, coarse | 345 | \$2,700 | \$7.84 |
| Bituminous surface-treatment aggregate | 174 | 1,150 | 6.62 |
| Fine aggregate (-3/8 inch), stone sand, bituminous mix or seal | 70 | 465 | 6.64 |
| Coarse and fine aggregates, graded road base or subbase 3/ | 368 | 2,290 | 6.23 |
| Unspecified: 4/ | | | |
| Actual | 50 | 219 | 4.38 |
| Estimated | 422 | 1,820 | 4.30 |
| Total | 1,430 | 8,650 | XX |

XX Not applicable

1/ Includes granite and traprock; excludes limestone from State total to avoid disclosing company proprietary data.

2/ Data are rounded to three significant digits; may not add to totals shown.

3/ Includes concrete aggregate (coarse), macadam, other coarse aggregate, screening (undesignated), and stone sand (concrete).

4/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.

TABLE 4
 NEW HAMPSHIRE: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 1996,
 BY MAJOR USE CATEGORY 1/

| Use | Quantity (thousand metric tons) | Value (thousands) | Value per ton |
|---|---------------------------------------|----------------------|------------------|
| Concrete aggregate and concrete products 2/ | 1,260 | \$7,280 | \$5.80 |
| Asphaltic concrete aggregates and other bituminous mixtures | 295 | 1,190 | 4.02 |
| Road base and coverings 3/ | 1,210 | 5,340 | 4.41 |
| Fill | 1,100 | 2,750 | 2.51 |
| Snow and ice control | 432 | 1,230 | 2.84 |
| Railroad ballast | 117 | 748 | 6.39 |
| Other miscellaneous uses 4/ | 59 | 394 | 6.68 |
| Unspecified: 5/ | | | |
| Actual | 403 | 2,980 | 7.39 |
| Estimated | 2,760 | 14,600 | 5.30 |
| Total or average | 7,620 | 36,500 | 4.79 |

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes plaster and gunite sands.

3/ Includes road and other stabilization (cement).

4/ Includes filtration.

5/ Includes production reported without a breakdown by end use and with estimates for nonrespondents.