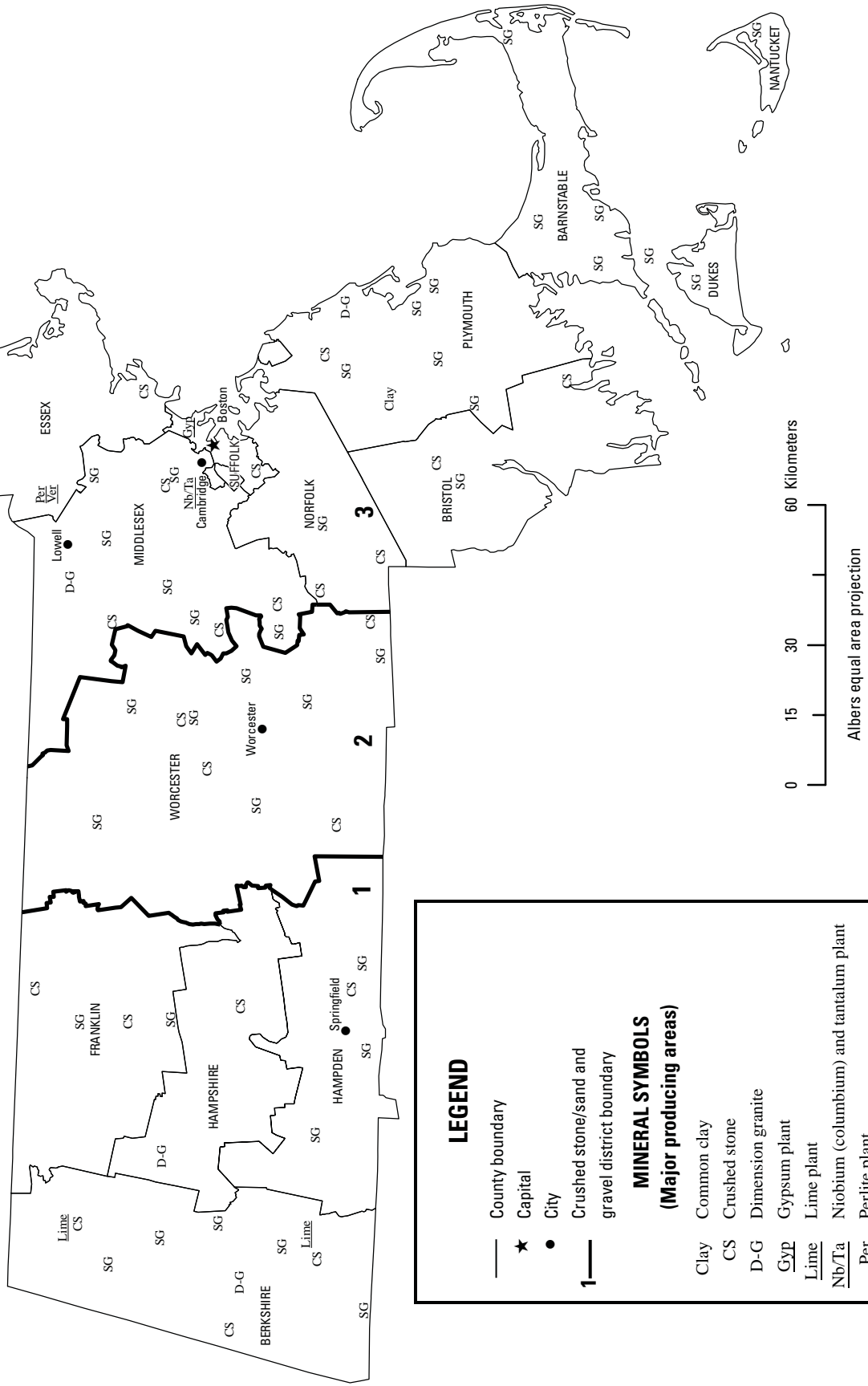




2007 Minerals Yearbook

MASSACHUSETTS [ADVANCE RELEASE]

MASSACHUSETTS



LEGEND

- County boundary
- ★ Capital
- City
- 1— Crushed stone/sand and gravel district boundary

MINERAL SYMBOLS (Major producing areas)

- Clay Common clay
- CS Crushed stone
- D-G Dimension granite
- Gyp Gypsum plant
- Lime Lime plant
- Nb/Ta Niobium (columbium) and tantalum plant
- Per Perlite plant
- SG Construction sand and gravel
- Ver Vermiculite plant

Source: Massachusetts Office of the State Geologist/U.S. Geological Survey (2007).

THE MINERAL INDUSTRY OF MASSACHUSETTS

This chapter has been prepared under a Memorandum of Understanding between the U.S. Geological Survey and the Massachusetts Office of the State Geologist for collecting information on all nonfuel minerals.

In 2007, Massachusetts nonfuel raw mineral production¹ was valued at \$277 million, based upon annual U.S. Geological Survey data. This was an \$11 million, or a 3.8%, decrease from the State's total nonfuel mineral value in 2006, which then had increased by \$38 million, up by more than 15% from that of 2005. Massachusetts leading nonfuel mineral commodities were, in descending order of production value, construction sand and gravel, crushed stone, and lime, the former two commodities accounting for 96% of the State's total reported value. Because production value data for lime and for common clays have been withheld, the State's actual total nonfuel mineral values for 2005–07 are significantly higher than those reported in table 1.

¹The terms "nonfuel mineral production" and related "values" encompass variations in meaning, depending upon the 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 2007 USGS mineral production data published in this chapter are those available as of June 2009. All USGS Mineral Industry Surveys and USGS Minerals Yearbook chapters—mineral commodity, State, and country—can be retrieved over the Internet at URL <http://minerals.usgs.gov/minerals>.

Construction sand and gravel led the State's nonfuel mineral commodities with an increase in value in 2007 of \$5 million, a nearly 4% increase from that of 2006, despite a more than 11% decrease in production of 2 million metric tons (Mt). However, this was more than offset by a \$16 million, or 11.6%, decrease in the value of crushed stone, in part the result of a 2.4 Mt, or nearly 18%, drop in stone production. Although dimension stone production increased by 11%, the mineral commodity's value decreased slightly, and common clays production and production value also showed small decreases for the year (table 1). An increase in the production of lime and an increase in the mineral commodity's unit value led to a nearly 18% increase in its production value.

In 2007, the State continued to rank fourth among the States in the quantities of dimension stone produced; additionally, the quarries and sand pits in Massachusetts continued to produce significant quantities of construction sand and gravel and crushed stone as compared with those of the other producing States.

TABLE 1
NONFUEL RAW MINERAL PRODUCTION IN MASSACHUSETTS^{1,2}

(Thousand metric tons and thousand dollars)

| Mineral | 2005 | | 2006 | | 2007 | |
|-------------------------------|----------|---------|---------------------|----------------------|----------|---------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Clays, common | 37 | W | 36 | W | 31 | W |
| Gemstones, natural | NA | 1 | NA | 1 | NA | 1 |
| Lime | W | W | W | W | W | W |
| Sand and gravel, construction | 16,500 | 117,000 | 17,600 | 134,000 | 15,600 | 139,000 |
| Stone: | | | | | | |
| Crushed | 14,500 | 121,000 | 13,600 ^r | 143,000 ^r | 11,200 | 127,000 |
| Dimension | 82 | 11,500 | 82 | 11,500 | 91 | 11,300 |
| Total | XX | 250,000 | XX | 288,000 ^r | XX | 277,000 |

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

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

TABLE 2
MASSACHUSETTS: CRUSHED STONE SOLD OR USED, BY TYPE¹

| Type | 2006 | | | 2007 | | |
|------------------------|--------------------|---------------------------------|-----------------------|--------------------|---------------------------------|-------------------|
| | Number of quarries | Quantity (thousand metric tons) | Value (thousands) | Number of quarries | Quantity (thousand metric tons) | Value (thousands) |
| Limestone ² | 3 ^r | 1,050 ^r | \$19,900 ^r | 3 | 946 | \$19,600 |
| Granite | 8 | 5,180 | 54,000 | 10 | 4,850 | 48,500 |
| Traprock | 17 | 7,110 ^r | 67,100 ^r | 16 | 5,070 | 54,400 |
| Miscellaneous stone | 1 ^r | 239 | 2,400 | 1 | 386 | 4,340 |
| Total | XX | 13,600 ^r | 143,000 ^r | XX | 11,200 | 127,000 |

^rRevised. XX Not applicable.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes limestone-dolomite reported with no distinction between the two.

TABLE 3
MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2007, BY USE¹

(Thousand metric tons and thousand dollars)

| Use | Quantity | Value |
|--|----------|---------|
| Construction: | | |
| Coarse aggregate (+1½ inch): | | |
| Riprap and jetty stone | W | W |
| Other coarse aggregate | 243 | 2,250 |
| Coarse aggregate, graded: | | |
| Concrete aggregate, coarse | W | W |
| Bituminous aggregate, coarse | W | W |
| Bituminous surface-treatment aggregate | W | W |
| Other graded coarse aggregate | 1,310 | 12,900 |
| Fine aggregate (-¾ inch): | | |
| Stone sand, concrete | W | W |
| Stone sand, bituminous mix or seal | W | W |
| Other fine aggregate | 367 | 3,170 |
| Coarse and fine aggregates: | | |
| Graded road base or subbase | W | W |
| Unpaved road surfacing | W | W |
| Terrazzo and exposed aggregate | W | W |
| Crusher run or fill or waste | W | W |
| Other coarse and fine aggregates | 457 | 4,110 |
| Other construction materials | 15 | 1,420 |
| Agricultural: | | |
| Limestone | W | W |
| Poultry grit and mineral food | W | W |
| Chemical and metallurgical: | | |
| Lime manufacture | W | W |
| Flux stone | W | W |
| Special, other fillers or extenders | W | W |
| Unspecified: ² | | |
| Reported | 3,040 | 32,700 |
| Estimated | 4,000 | 46,000 |
| Total | 11,200 | 127,000 |

W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Reported and estimated production without a breakdown by end use.

TABLE 4
 MASSACHUSETTS: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2007, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

| Use | District 1 | | District 2 | | District 3 | |
|--|------------|--------|------------|--------|------------|--------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Construction: | | | | | | |
| Coarse aggregate (+1½ inch) ² | W | W | W | W | W | W |
| Coarse aggregate, graded ³ | -- | -- | W | W | W | W |
| Fine aggregate (-¾ inch) ⁴ | -- | -- | W | W | W | W |
| Coarse and fine aggregates ⁵ | W | W | W | W | 719 | 7,330 |
| Other construction materials | 15 | 1,420 | -- | -- | -- | -- |
| Agricultural ⁶ | W | W | -- | -- | -- | -- |
| Chemical and metallurgical ⁷ | W | W | -- | -- | -- | -- |
| Special ⁸ | W | W | -- | -- | -- | -- |
| Unspecified: ⁹ | | | | | | |
| Reported | -- | -- | -- | -- | 3,040 | 32,700 |
| Estimated | 1,600 | 18,000 | 1,300 | 14,000 | 1,200 | 13,000 |
| Total | 2,230 | 33,600 | 1,950 | 19,900 | 7,070 | 73,200 |

W Withheld to avoid disclosing company proprietary data; included in "Total." -- Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes riprap and jetty stone and other coarse aggregate.

³Includes bituminous aggregate (coarse), bituminous surface-treatment aggregate, concrete aggregate (coarse), and other graded coarse aggregate.

⁴Includes stone sand (bituminous mix or seal), stone sand (concrete), and other fine aggregate.

⁵Includes crusher run or fill or waste, graded road base or subbase, unpaved road surfacing, terrazzo and exposed aggregate, and other coarse and fine aggregates.

⁶Includes agricultural limestone and poultry grit and mineral food.

⁷Includes lime manufacture and flux stone.

⁸Includes other fillers or extenders.

⁹Reported and estimated production without a breakdown by end use.

TABLE 5
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2007,
 BY MAJOR USE CATEGORY¹

| Use | Quantity (thousand metric tons) | Value (thousands) | Unit value |
|---|---------------------------------------|----------------------|---------------|
| Concrete aggregate (including concrete sand) | 3,220 | \$31,100 | \$9.67 |
| Plaster and gunitite sands | 29 | 265 | 9.23 |
| Concrete products (blocks, bricks, pipe, decorative, etc.) | 54 | 433 | 8.02 |
| Asphaltic concrete aggregates and other bituminous mixtures | 1,110 | 15,400 | 13.88 |
| Road base and coverings | 795 | 7,810 | 9.82 |
| Fill | 1,330 | 6,660 | 5.01 |
| Snow and ice control | 136 | 1,520 | 11.23 |
| Filtration | 104 | 1,290 | 12.37 |
| Other miscellaneous uses ² | 131 | 1,270 | 9.68 |
| Unspecified: ³ | | | |
| Reported | 834 | 7,150 | 8.57 |
| Estimated | 7,880 | 66,200 | 8.40 |
| Total or average | 15,600 | 139,000 | 8.90 |

¹Data are rounded to no more than three significant digits, except unit value; may not add to totals shown.

²Includes railroad ballast and roofing granules.

³Reported and estimated production without a breakdown by end use.

TABLE 6
 MASSACHUSETTS: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2007, BY USE AND DISTRICT¹

(Thousand metric tons and thousand dollars)

| Use | District 1 | | District 2 | | District 3 | |
|--|------------|--------|------------|--------|------------|--------|
| | Quantity | Value | Quantity | Value | Quantity | Value |
| Concrete aggregates and concrete products ² | 1,650 | 17,300 | 690 | 4,440 | 965 | 10,000 |
| Asphaltic concrete aggregates and road base materials | 246 | 3,940 | 516 | 5,950 | 1,140 | 13,300 |
| Fill | 705 | 3,100 | 422 | 2,060 | 204 | 1,500 |
| Other miscellaneous uses ³ | 15 | 153 | 273 | 3,050 | 82 | 868 |
| Unspecified: ⁴ | | | | | | |
| Reported | 510 | 3,770 | 309 | 3,260 | 15 | 123 |
| Estimated | 1,350 | 12,000 | 420 | 4,070 | 6,120 | 50,100 |
| Total | 4,470 | 40,300 | 2,630 | 22,800 | 8,520 | 75,900 |

¹Data are rounded to no more than three significant digits; may not add to totals shown.

²Includes plaster and gunite sands.

³Includes filtration, railroad ballast, roofing granules, and snow and ice control.

⁴Reported and estimated production without a breakdown by end use.