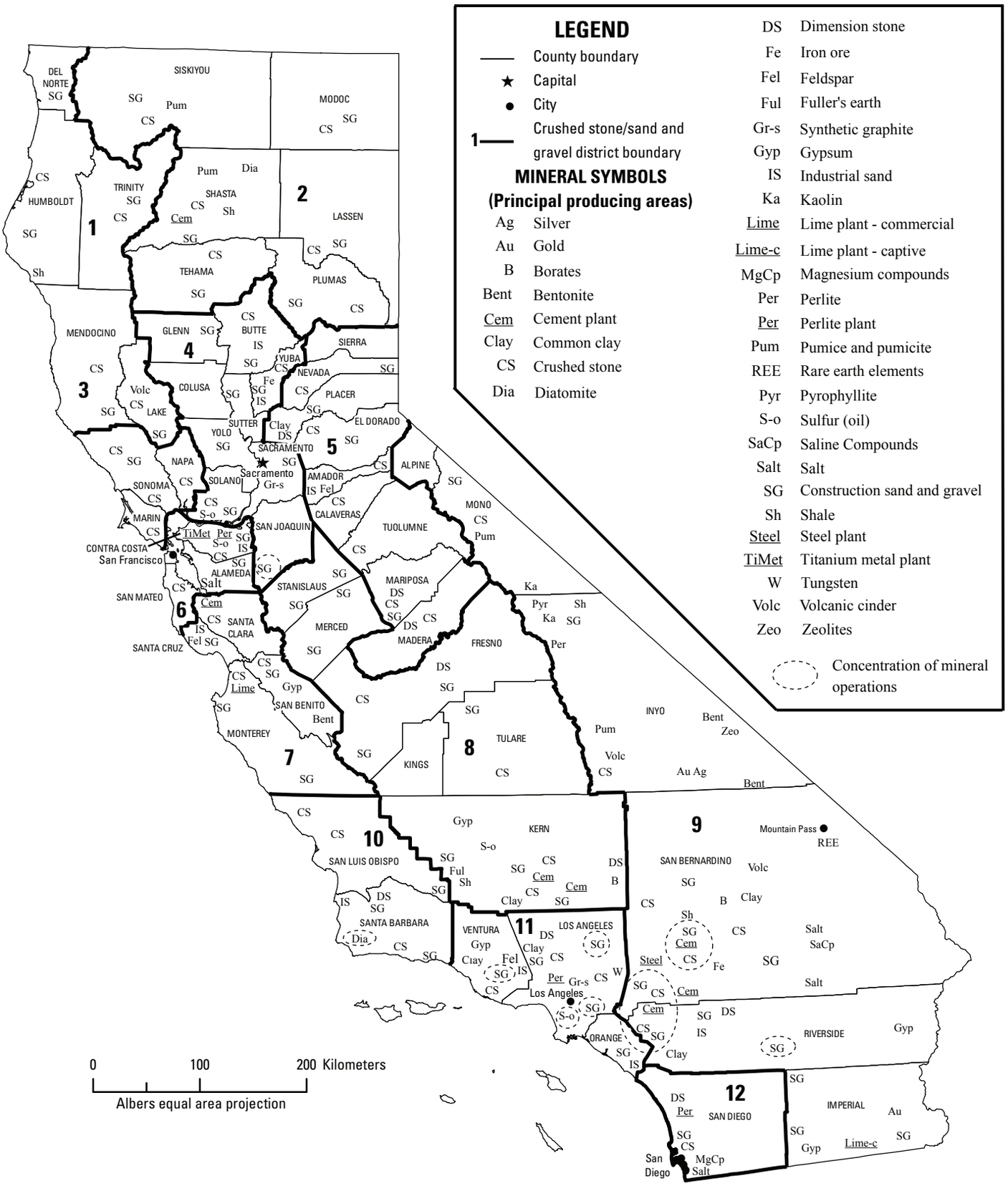
2010–2011 Minerals Yearbook

CALIFORNIA [ADVANCE RELEASE]

U.S. Department of the Interior
U.S. Geological Survey

April 2015

CALIFORNIA



Source: California Geological Survey/ U.S. Geological Survey (2010–11).

The Mineral Industry of California

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

In 2011, California's nonfuel mineral production[1] was valued at 3.21 billion, and in 2010, it was $2.89 billion, based upon annual U.S. Geological Survey (USGS) data. The 2011 value was a $320 million (11%) increase from the State's total nonfuel mineral value in 2010, which was unchanged from that of 2009. In 2011, the State ranked seventh with 4.3% of the U.S. total, down from 2010 when California ranked sixth, accounting for 4.4% of the U.S. total nonfuel mineral production value. For the 1999–2004 period, the State ranked first in the Nation based on total production value, and the State's highest percentage of the U.S. total production value was 9% in 2002, but has been declining in recent years. On a per capita basis, California ranked 37th in the Nation for its total nonfuel mineral production value in 2011 with a production value of $85, well below the national average of $240.

In 2011 and 2010, California continued to be the leading construction sand-and-gravel-producing State. In 2011, the State accounted for 10% of the total construction sand and gravel U.S. production at 80.3 million metric tons (Mt), up by 7.6% from 2010. In 2010, it accounted for 74.6 Mt of production, down 5.3% from 2009. Construction sand and gravel was also the State's leading mineral commodity, by production value, accounting for 27.4% of the State's total nonfuel mineral production value in 2011 and 28% in 2010. Construction sand and gravel was followed by portland cement, crushed stone, industrial sand and gravel, and masonry cement (in decreasing order by value). The major metal produced in the State was gold, with limited production of silver (as a byproduct of gold production) and very small quantities of iron ore and tungsten. Some steel was produced from scrap.

Construction sand and gravel, crushed stone, and portland cement were 55% of the total nonfuel mineral production of the State in 2011, and 57.6% in 2010. Salt production increased by 15.4% and production value by 11.8% in 2011, after its production declined by 13.7% and its production value declined by 5.9% in 2010. Diatomite increased in quantity produced by 40.1% in 2011, with a boost of 17.1% in production value, after having declined in production quantity by 12.8% in 2010, but increased in value by 8.8%. Zeolites also increased in production by 271.3% and by 302.0% in value in 2011; production decreased by 13% in the quantity produced but increased in value by 4.1% in 2010. Magnesium compounds were flat in production and production value in 2011 with respect to 2010, but decreased in quantity and value, each by 20.0% in 2010 from 2009. Gold increased in production by 0.9% and production value by 29.3% in 2011, and by 22.1% and 53.8%, respectively, in 2010. The actual production values of diatomite, gold, magnesium compounds, salt and zeolites are withheld, because these are company proprietary data. Table 1 presents the actual data for the other minerals.

The State produced 27 minerals in 2011 and 26 in 2010. In both 2011 and 2010, California was the only producer of boron in the Nation. It ranked first in construction sand and gravel produced, and first out of four diatomite-producing States. The State ranked fifth in the production of masonry cement, pumice and pumicite, and natural gemstones (by value) in both 2011 and 2010. California ranked second, behind Texas, in both years in the production of portland cement. In both 2011 and 2010, it was second out of two States in the production of soda ash. It was third in the production of feldspar in 2011 and fourth in 2010, out of seven States in each year. In 2011, California was fifth out of 10 States in gold production and seventh out of nine states in 2010.

The following narrative information was provided by the California Geological Survey[2] (CGS). The CGS production data and information, except where otherwise noted, were based upon the agency's own surveys and mine inquiries, company annual reports, and data and information derived from other State government agency sources. These data may differ from USGS annual production figures, which were based upon company responses to USGS surveys and upon USGS estimates.

There were about 700 active mines in California producing nonfuel minerals during 2011 and 2010 (California Office of Mine Reclamation). Approximately 5,300 people were emp1oyed at these mines and processing facilities (U.S. Bureau of Labor Statistics) during those years.

Commodity Review

Industrial Minerals

Boron was California's second most valuable mineral commodity in terms of dollar value, after construction sand and gravel in 2011.

The third highest dollar value mineral commodity produced was portland cement valued at $582 million for 7.7 Mt (8.5 million short tons) produced. Crushed stone ranked fourth in value for industrial minerals and fifth overall (behind gold) with a value of $295 million for 32.8 Mt (36 million short tons) produced.

Among the industrial minerals, construction materials, including aggregate (crushed stone and sand and gravel) and portland cement, typically accounting for more than half of

[1]The 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 2010 and 2011 USGS mineral production data published in this chapter are those available as of May 2013. 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.

[2]John Clinkenbeard, Supervising Engineering Geologist, and Joshua Smith, Engineering Geologist, authored the text of the State mineral industry information provided by the California Geological Survey.

the production value of the annual nonfuel mineral production in California, are critical to the State's construction industry. The construction industry in California was hit hard by the recession in 2007–2009 and has been slow to recover, leading to greatly decreased demands for construction materials in the intervening years. While commercial and residential construction was still slow throughout much of the State in 2011 and 2010, construction began increasing in some areas of the State, as indicated by slight increases in production in 2011 for construction sand and gravel and portland cement for the first time since 2007.

In 2010, construction sand and gravel continued to be California's leading industrial mineral commodity, with an estimated total value of $811 million for 74.7 Mt (82.3 million short tons) produced. Boron minerals were the second largest dollar value mineral commodity produced in California in 2010. The third largest mineral commodity was portland cement valued at $549 million for 6.95 Mt (7.6 million short tons).

TABLE 1
NONFUEL MINERAL PRODUCTION IN CALIFORNIA[1, 2]

(Thousand metric tons and thousand dollars)

Mineral	2009		2010		2011	
	Quantity	Value	Quantity	Value	Quantity	Value
Cement:						
Masonry	236	28,100 [e]	178	19,500 [e]	170	18,600 [e]
Portland	7,150	646,000 [e]	6,950	549,000 [e]	7,730	582,000 [e]
Clays:						
Bentonite	22	2,310	23	2,700	19	2,270
Common	318	2,370	355	5,000	398	6,990
Fire	W	W	--	--	--	--
Kaolin	W	W	7	W	7	659
Gemstones, natural	NA	727	NA	754	NA	759
Gypsum, crude	807 [r]	6,870 [r]	873	6,020	992	12,000
Sand and gravel:						
Construction	78,800 [r]	912,000	74,700	811,000	80,300	889,000
Industrial	1,300	35,800	1,320	39,400	1,300	40,800
Stone:						
Crushed	36,600 [r]	364,000 [r]	31,000	306,000	32,800	295,000
Dimension	24 [r]	6,100	26	6,940	25	9,590
Combined values of boron minerals, clays [fuller's earth], diatomite, feldspar, gold, iron ore (usable shipped), lime, magnesium compounds, perlite (crude), pumice and pumicite, pyrophyllite (2009-10), salt, silver, soda ash, tungsten, zeolites, and values indicated by symbol W	XX	888,000 [r]	XX	1,140,000	XX	1,360,000
Total	XX	2,890,000 [r]	XX	2,890,000	XX	3,210,000

[e]Estimated. [r]Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. Withheld values included in "Combined values" data. XX Not applicable. -- Zero.

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

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

TABLE 2

CALIFORNIA: CRUSHED STONE SOLD OR USED IN THE UNITED STATES, BY TYPE[1]

Type	2009				2010				2011			
	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value	Number of quarries	Quantity (thousand metric tons)	Value (thousands)	Unit value
Limestone[2]	24 r	14,300 r	$98,800 r	$6.91	26	12,900	$115,000	$8.88	25	13,700	$108,000	$7.89
Dolomite	4	131	1,300	9.91	5	226	2,100	9.27	4	125	690	5.51
Granite	30	9,780	101,000	10.36	29	8,740	85,200	9.75	28	8,850	84,500	9.54
Traprock	20	4,600 r	49,400 r	10.74	20	4,390	52,200	11.89	24	3,930	38,700	9.85
Sandstone and quartzite[3]	8	1,250 r	12,500 r	9.99	11	1,030	9,270	8.97	9	974	9,770	10.02
Slate	3	102	1,180	11.58	--	--	--	--	--	--	--	--
Volcanic cinder and scoria	11	333	4,360	13.10	9	313	3,500	11.18	9	303	3,050	10.07
Miscellaneous stone	52 r	9,350 r	108,000 r	11.55	51	3,380	38,800	11.49	50	4,920	50,500	10.26
Total or average	XX	36,600 r	364,000 r	9.95	XX	31,000	306,000	9.87	XX	32,800	295,000	9.00

[r]Revised. XX Not applicable. -- Zero

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

[2]Includes limestone-dolomite reported with no distinction between the two kinds of stone.

[3]Includes sandstone-quartzite reported with no distinction between the two kinds of stone.

TABLE 3
CALIFORNIA: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2010, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	176	$3,570
Filter stone	15	299
Other coarse aggregate	24	285
Coarse aggregate, graded:		
Concrete aggregate, coarse	356	4,830
Bituminous aggregate, coarse	178	2,700
Bituminous surface-treatment aggregate	W	W
Railroad ballast	W	W
Other graded coarse aggregate	784	8,820
Fine aggregate (-⅜ inch):		
Stone sand, concrete	37	458
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	98	983
Other fine aggregate	371	4,320
Coarse and fine aggregates:		
Graded road base or subbase	921	10,700
Unpaved road surface	630	7,470
Terrazzo and exposed aggregate	W	W
Crusher run or fill or waste	239	1,060
Other coarse and fine aggregates	1,150	6,390
Other construction materials	978	14,700
Agricultural:		
Agricultural, limestone	114	2,050
Poultry grit and mineral food	239	12,500
Other agricultural uses	37	883
Chemical and metallurgical:		
Cement manufacture	6,680	18,500
Flux stone	W	W
Glass manufacture	W	W
Sulfur oxide removal	193	5,130
Special:		
Asphalt fillers or extenders	W	W
Other fillers or extenders	W	W
Unspecified:[2]		
Reported	6,330	62,100
Estimated	10,700	108,000
Total	31,000	306,000

W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Reported and estimated production without a breakdown by end use.

TABLE 4
CALIFORNIA: CRUSHED STONE SOLD OR USED BY PRODUCERS
IN 2011, BY USE[1]

(Thousand metric tons and thousand dollars)

Use	Quantity	Value
Construction:		
Coarse aggregate (+1½ inch):		
Riprap and jetty stone	347	5,490
Filter stone	65	859
Unspecified coarse aggregate	22	210
Coarse aggregate, graded:		
Concrete aggregate, coarse	1,070	9,350
Bituminous aggregate, coarse	494	7,480
Bituminous surface-treatment aggregate	W	W
Railroad ballast	818	8,550
Unspecified graded coarse aggregate	1,610	16,300
Fine aggregate (-⅜ inch):		
Stone sand, concrete	34	472
Stone sand, bituminous mix or seal	W	W
Screening, undesignated	220	3,220
Unspecified fine aggregate	622	7,380
Coarse and fine aggregates:		
Graded road base or subbase	2,300	24,300
Unpaved road surface	90	881
Terrazzo and exposed aggregate	32	858
Crusher run or fill or waste	50	486
Roofing granules	W	W
Unspecified coarse and fine aggregates	983	5,000
Unspecified and other construction materials	182	1,730
Agricultural:		
Agricultural, limestone	78	2,060
Poultry grit and mineral food	140	7,930
Unspecified and other agricultural uses	W	W
Chemical and metallurgical:		
Cement manufacture	6,900	19,700
Lime manufacture	W	W
Glass manufacture	W	W
Sulfur oxide removal	W	W
Special:		
Asphalt fillers or extenders	W	W
Whiting or whiting substitute	W	W
Other fillers or extenders	1,060	30,100
Other miscellaneous uses and specified uses not listed	19	351
Unspecified:[2]		
Reported	5,150	45,700
Estimated	9,840	89,300
Total	32,800	295,000

W Withheld to avoid disclosing company proprietary data; included in "Total."
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Reported and estimated production without a breakdown by end use.

TABLE 5

CALIFORNIA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2010, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		District 4		District 5	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:										
Coarse aggregate (+1½ inch)[2]	29	$651	44	$682	13	$398	23	$452	W	W
Coarse aggregate, graded[3]	--	--	105	1,500	113	1,850	W	W	W	W
Fine aggregate (-⅜ inch)[4]	--	--	81	806	129	2,020	W	W	W	W
Coarse and fine aggregates[5]	143	2,320	263	2,730	W	W	71	474	62	$624
Other construction materials	--	--	--	--	68	1,250	--	--	W	W
Agricultural[6]	--	--	W	W	W	W	--	--	W	W
Chemical and metallurgical[7]	--	--	W	W	--	--	--	--	W	W
Special[8]	--	--	--	--	--	--	--	--	8	258
Unspecified:[9]										
Reported	175	1,720	28	276	649	6,330	649	6,330	386	3,780
Estimated	258	3,040	164	1,780	1,280	12,500	266	2,790	550	5,370
Total[10]	605	7,720	936	9,040	2,610	29,900	1,410	14,100	1,620	27,300

	District 6		District 7		District 8		District 9		District 10	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:										
Coarse aggregate (+1½ inch)[2]	W	W	--	--	--	--	--	--	W	W
Coarse aggregate, graded[3]	W	W	--	--	--	--	W	W	--	--
Fine aggregate (-⅜ inch)[4]	W	W	--	--	--	--	W	W	W	W
Coarse and fine aggregates[5]	304	$2,870	W	W	--	--	932	$4,690	W	W
Other construction materials	--	--	W	W	--	--	W	W	W	W
Agricultural[6]	W	W	--	--	--	--	--	--	W	W
Chemical and metallurgical[7]	--	--	--	--	--	--	4,210	13,900	W	W
Special[8]	--	--	--	--	--	--	W	W	W	W
Unspecified:[9]										
Reported	--	--	1,290	$13,000	2,250	$10,800	1,640	16,000	153	$1,500
Estimated	460	4,490	2,440	24,000	163	1,620	3,200	31,200	445	4,730
Total[10]	1,370	15,100	4,800	52,400	2,420	12,400	11,600	103,000	829	10,800

	District 11		District 12		Unspecified districts	
	Quantity	Value	Quantity	Value	Quantity	Value
Construction:						
Coarse aggregate (+1½ inch)[2]	33	$'924	--	--	--	--
Coarse aggregate, graded[3]	22	394	--	--	--	--
Fine aggregate (-⅜ inch)[4]	10	56	--	--	--	--
Coarse and fine aggregates[5]	584	6,790	--	--	--	--
Other construction materials	--	--	--	--	--	--
Agricultural[6]	--	--	--	--	--	--
Chemical and metallurgical[7]	--	--	--	--	--	--
Special[8]	--	--	--	--	--	--
Unspecified:[9]						
Reported	646	420	706	$6,900	31	$202
Estimated	1,300	13,800	228	2,280	--	--
Total[10]	2,590	22,400	935	9,180	31	202

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

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

[2]Includes macadam, riprap and jetty stone, filter stone, and other coarse aggregates.

[3]Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregates.

[4]Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregates.

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

[6]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[7]Includes cement manufacture, lime manufacture, dead-burned dolomite manufacture, flux stone, chemical stone, glass manufacture, and sulfur oxide removal.

[8]Includes mine dusting or acid water treatment, whiting or whitening substance, and other fillers or extenders.

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

[10]District totals may not add up to the published State total, owing to revisions made after the production of the table and/or proprietary data being withheld.

TABLE 6

CALIFORNIA: CRUSHED STONE SOLD OR USED BY PRODUCERS IN 2011, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3		District 4	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch)[2]	63	986	W	W	--	--	W	W
Coarse aggregate, graded[3]	W	W	W	W	--	--	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	7	107	W	W
Coarse and fine aggregates[5]	W	W	345	2,690	25	675	W	W
Other construction materials	W	W	--	--	--	--	--	--
Agricultural[6]	--	--	W	W	W	W	--	--
Chemical and metallurgical[7]	--	--	W	W	--	--	--	--
Special[8]	--	--	--	--	--	--	--	--
Other miscellaneous uses and specified uses not listed[9]	--	--	--	--	--	--	--	--
Unspecified:[10]								
Reported	W	W	15	128	722	6,410	513	4,550
Estimated	194	1,720	268	2,380	1,780	18,400	262	2,330
Total	522	5,440	1,070	7,050	2,570	29,000	1,540	14,600

Use	District 5		District 6		District 7		District 8	
	Quantity	Value	Quantity	Value	Quantity	Value	Quantity	Value
Construction:								
Coarse aggregate (+1½ inch)[2]	212	3,020	W	W	W	W	--	--
Coarse aggregate, graded[3]	W	W	940	9,230	W	W	--	--
Fine aggregate (-⅜ inch)[4]	17	259	W	W	W	W	--	--
Coarse and fine aggregates[5]	153	1,490	W	W	W	W	--	--
Other construction materials	W	W	W	W	16	148	--	--
Agricultural[6]	--	--	W	W	W	W	--	--
Chemical and metallurgical[7]	--	--	--	--	W	W	W	W
Special[8]	--	--	--	--	W	W	--	--
Other miscellaneous uses and specified uses not listed[9]	W	W	--	--	--	--	--	--
Unspecified:[10]								
Reported	429	4,230	--	--	1,640	14,100	W	W
Estimated	1,060	9,370	411	3,650	21	190	218	1,930
Total	1,930	19,000	1,760	17,300	4,600	45,200	1,950	7,660

Use	District 9		District 10		District 11		District 12	
	Quantity	Value	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	W	W
Fine aggregate (-⅜ inch)[4]	W	W	W	W	9	160	W	W
Coarse and fine aggregates[5]	W	W	W	W	W	W	W	W
Other construction materials	50	590	W	W	--	--	--	--
Agricultural[6]	W	W	W	W	--	--	--	--
Chemical and metallurgical[7]	W	W	W	W	W	W	--	--
Special[8]	W	W	--	--	W	W	W	W
Other miscellaneous uses and specified uses not listed[9]	W	W	--	--	9	155	--	--
Unspecified:[10]								
Reported	723	6,430	W	W	--	--	W	W
Estimated	3,090	26,800	509	4,520	1,790	15,900	237	2,110
Total	10,800	93,000	981	13,300	3,570	29,000	1,530	14,800

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

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

[2]Includes macadam, riprap and jetty stone, filter stone, and other coarse aggregates.

[3]Includes concrete aggregate (coarse), bituminous aggregate (coarse), bituminous surface-treatment aggregate, railroad ballast, and other graded coarse aggregates.

[4]Includes stone sand (concrete), stone sand (bituminous mix or seal), screening (undesignated), and other fine aggregates.

[5]Includes graded road base or subbase, unpaved road surface, terrazzo and exposed aggregate, crusher run, roofing granules, and other coarse and fine aggregates.

[6]Includes agricultural limestone, poultry grit and mineral food, and other agricultural uses.

[7]Includes cement manufacture, lime manufacture, dead-burned dolomite manufacture, flux stone, chemical stone, glass manufacture, and sulfur oxide removal.

[8]Includes mine dusting or acid water treatment, whiting or whitening substance, and other fillers or extenders.

[9]Includes drain fields, waste material, lightweight aggregate (slate), pipe bedding, refractory stone (including ganister), and other miscellaneous uses.

[10]Reported and estimated production without a breakdown by end use.

TABLE 7
CALIFORNIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	12,600	$138,000	$10.96
Plaster and gunite sands	1,230	15,900	12.99
Concrete products (blocks, bricks, pipe, decorative, etc.)	125	1,880	15.02
Asphaltic concrete aggregates and other bituminous mixtures	8,770	104,000	11.84
Road base and coverings[2]	4,790	44,700	9.33
Fill	3,170	29,600	9.35
Filtration	5	60	12.00
Other miscellaneous uses[3]	1,180	14,300	12.15
Unspecified:[4]			
Reported	17,700	188,000	10.62
Estimated	25,200	273,000	10.84
Total or average	74,700	811,000	10.86

[1]Data are rounded to no more than three significant digitis, except unit value; may not add to totals shown.
[2]Includes road and other stabilization (cement).
[3]Includes golf course, railroad ballast, and snow and ice control.
[4]Reported and estimated production without a breakdown by end use.

TABLE 8
CALIFORNIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011,
BY MAJOR USE CATEGORY[1]

Use	Quantity (thousand metric tons)	Value (thousands)	Unit value
Concrete aggregate (including concrete sand)	13,000	$154,000	$11.85
Plaster and gunite sands	1,060	14,600	13.77
Concrete products (blocks, bricks, pipe, decorative, etc.)	103	1,610	15.63
Asphaltic concrete aggregates and other bituminous mixtures	9,400	119,000	12.66
Road base and coverings[2]	5,880	49,500	8.42
Fill	3,200	32,200	10.06
Other miscellaneous uses[3]	1,690	19,900	11.78
Unspecified:[4]			
Reported	19,500	207,000	10.62
Estimated	26,400	292,000	11.06
Total or average	80,300	889,000	11.07

[1]Data are rounded to no more than three significant digitis, except unit value; may not add to totals shown.
[2]Includes road and other stabilization (cement).
[3]Includes filtration, golf course, and railroad ballast.
[4]Reported and estimated production without a breakdown by end use.

TABLE 9

CALIFORNIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2010, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	43	$542	W	W	66	$761
Asphaltic concrete aggregates and road base materials[3]	154	1,770	W	W	43	378
Fill	11	96	1	$13	68	683
Other miscellaneous uses[4]	--	--	11	120	--	--
Unspecified:[5]						
Reported	110	1,230	10	159	87	993
Estimated	882	9,630	981	10,700	6	69
Total[6]	1,200	13,300	2,030	21,700	271	2,880
	District 4		District 5		District 6	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	1,650	$15,100	32	$71	W	W
Asphaltic concrete aggregates and road base materials[3]	1,480	13,900	81	960	W	W
Fill	460	4,060	12	117	908	$12,300
Other miscellaneous uses[4]	13	182	6	88	--	--
Unspecified:[5]						
Reported	6,940	70,700	355	3,480	483	4,170
Estimated	1,640	16,600	701	7,650	2,170	23,700
Total[6]	12,200	120,000	1,190	12,400	5,260	59,600
	District 7		District 8		District 9	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	298	$3,650	2,390	$24,300	3,620	$37,500
Asphaltic concrete aggregates and road base materials[3]	17	166	2,900	28,200	4,550	46,100
Fill	101	920	288	3,950	426	2,520
Other miscellaneous uses[4]	23	450	96	906	711	9,370
Unspecified:[5]						
Reported	5	88	2,100	25,400	2,580	29,600
Estimated	656	7,160	2,070	22,600	10,400	114,000
Total[6]	1,100	12,400	9,850	105,000	22,300	239,000
	District 10		District 11		District 12	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	W	W	W	W
Asphaltic concrete aggregates and road base materials[3]	W	W	W	W	W	W
Fill	61	$336	633	$3,560	197	$1,050
Other miscellaneous uses[4]	--	--	310	3,070	7	110
Unspecified:[5]						
Reported	1,360	15,800	2,760	32,800	157	1,910
Estimated	633	6,910	3,600	38,600	1,440	15,900
Total[6]	2,220	24,800	12,800	160,000	3,590	35,400
	Unspecified districts					
	Quantity	Value				
Concrete aggregate and concrete products[2]	--	--				
Asphaltic concrete aggregates and road base materials[3]	--	--				
Fill	--	--				
Other miscellaneous uses[4]	--	--				
Unspecified:[5]						
Reported	746	$1,570				
Estimated	--	--				
Total[6]	746	1,570				

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

[1]Data are rounded to no more than 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, golf course, railroad ballast, and snow and ice control.

[5]Reported and estimated production without a breakdown by end use.

[6]District totals may not add up to the published State total, owing to revisions made after the production of the table and/or proprietary data being withhe

TABLE 10

CALIFORNIA: CONSTRUCTION SAND AND GRAVEL SOLD OR USED IN 2011, BY USE AND DISTRICT[1]

(Thousand metric tons and thousand dollars)

Use	District 1		District 2		District 3	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	W	W	W	W
Asphaltic concrete aggregates and road base materials[3]	W	W	W	W	W	W
Fill	9	92	--	--	26	267
Other miscellaneous uses[4]	--	--	26	290	--	--
Unspecified:[5]						
Reported	34	344	--	--	105	1,190
Estimated	790	8,790	1,020	11,300	--	--
Total	1,130	12,700	2,120	21,900	201	2,200

Use	District 4		District 5		District 6	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	4	48	W	W
Asphaltic concrete aggregates and road base materials[3]	W	W	76	855	W	W
Fill	212	1,700	7	58	1,260	17,400
Other miscellaneous uses[4]	4	57	3	75	--	--
Unspecified:[5]						
Reported	7,720	76,000	415	4,220	500	4,640
Estimated	1,820	19,300	654	7,270	1,990	22,200
Total	12,800	124,000	1,160	12,500	5,560	68,800

Use	District 7		District 8		District 9	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	2,630	29,200	2,630	28,900
Asphaltic concrete aggregates and road base materials[3]	W	W	3,230	31,400	4,420	45,400
Fill	92	1,000	215	1,940	323	2,190
Other miscellaneous uses[4]	20	352	58	644	1,060	13,200
Unspecified:[5]						
Reported	45	505	2,250	26,800	2,730	31,300
Estimated	580	6,460	2,390	26,400	12,100	134,000
Total	1,060	12,400	10,800	116,000	23,200	255,000

Use	District 10		District 11		District 12	
	Quantity	Value	Quantity	Value	Quantity	Value
Concrete aggregate and concrete products[2]	W	W	W	W	W	W
Asphaltic concrete aggregates and road base materials[3]	W	W	W	W	W	W
Fill	125	1,380	722	5,430	209	806
Other miscellaneous uses[4]	3	69	523	5,190	--	--
Unspecified:[5]						
Reported	1,570	18,400	2,870	33,600	93	1,100
Estimated	272	2,810	3,440	38,300	1,410	15,500
Total	2,580	31,200	15,600	190,000	2,800	32,700

Use	Unspecified districts	
	Quantity	Value
Concrete aggregate and concrete products[2]	--	--
Asphaltic concrete aggregates and road base materials[3]	--	--
Fill	--	--
Other miscellaneous uses[4]	--	--
Unspecified:[5]		
Reported	1,210	8,600
Estimated	--	--
Total	1,210	8,600

W Withheld to avoid disclosing company proprietary data; included in "Other miscellaneous uses." -- Zero.

[1]Data are rounded to no more than 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, golf course, and railroad ballast.

[5]Reported and estimated production without a breakdown by end use.