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State Geologists



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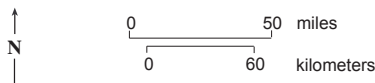
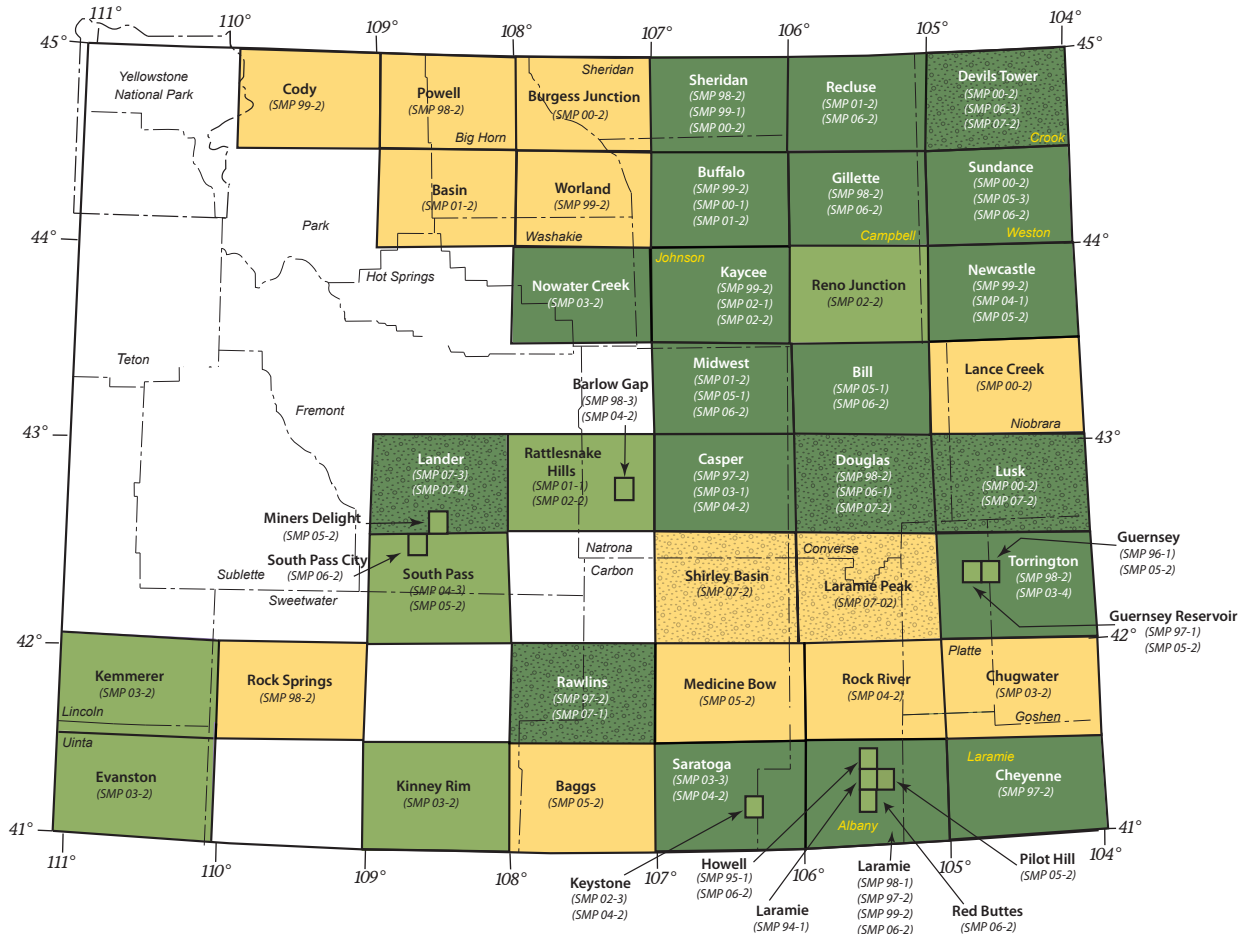
Wyoming State Geological Survey

United States
Geological Survey



National Cooperative Geologic Mapping Program

STATEMAP Component: States compete for federal matching funds for geologic mapping



STATEMAP funded projects (FY 1995 - FY 2006)

- Bedrock and surficial geologic maps
- Surficial geologic maps
- Bedrock geologic maps
- Proposed 1:24,000- and 1:100,000-scale maps

In-progress STATEMAP 2006 subprojects

- SMP 06-1 Douglas bedrock
- SMP 06-2 Midwest, Bill, Laramie, and Sundance bedrock; Recluse and Gillette surficial; Howell, Red Buttes, and South Pass City 1:24,000-scale bedrock
- SMP 06-3 Devils Tower bedrock

Proposed STATEMAP 2007 subprojects

- SMP 07-1 Rawlins bedrock
- SMP 07-2 Lusk, Douglas, and Devils Tower bedrock; Laramie Peak and Shirley Basin surficial.
- SMP 07-3 Lander bedrock
- SMP 07-4 Lander surficial

Contact Information

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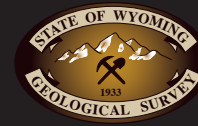
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Table 1. Summary of the STATEMAP-funded geologic mapping program in Wyoming.

Fiscal Year	Project description and map scale	State dollars	Federal dollars	Total project dollars
1995	Geologic map of the Laramie Quadrangle, 1:24,000-scale STATEMAP 94	\$12,000	\$12,000	\$24,000
1996	Geologic map of the Howell Quadrangle, 1:24,000-scale STATEMAP 95	\$10,000	\$10,000	\$20,000
1997	Geologic map of the Guernsey Quadrangle, 1:24,000-scale STATEMAP 96	\$8,499	\$8,499	\$16,998
1998	1-Geologic map of the Guernsey Reservoir Quadrangle, 1:24,000-scale STATEMAP 97	\$14,000	\$14,000	\$28,000
	2-Digital geologic map of the Cheyenne Quadrangle and digital surficial geologic maps of the Casper, Cheyenne, Laramie, and Rawlins Quadrangles, 1:100,000-scale STATEMAP 97	\$17,000	\$17,000	\$34,000
	Total 1998 Funds	\$31,000	\$31,000	\$62,000
1999	1-Geologic map of the Laramie Quadrangle, 1:100,000-scale STATEMAP 98	\$18,500	\$18,500	\$37,000
	2-Digital geologic map of the Gillette Quadrangle and surficial geologic maps of the Douglas, Powell, Rock Springs, Sheridan, and Torrington Quadrangles, 1:100,000-scale STATEMAP 98	\$20,000	\$20,000	\$40,000
	3-Geologic map of the Barlow Gap Quadrangle, 1:24,000-scale STATEMAP 98	\$18,650	\$18,650	\$37,300
	Total 1999 Funds	\$57,150	\$57,150	\$114,300
2000	1-Geologic map of the Sheridan Quadrangle, 1:100,000-scale STATEMAP 99	\$19,500	\$19,500	\$39,000
	2-Digital geologic map of the Laramie Quadrangle and digital surficial geologic maps of the Buffalo, Cody, Newcastle, Kaycee, and Worland Quadrangles, 1:100,000-scale STATEMAP 99	\$20,000	\$20,000	\$40,000
	Total 2000 Funds	\$39,500	\$39,500	\$79,000
2001	1-Geologic map of the Buffalo Quadrangle, 1:100,000-scale STATEMAP 00	\$20,500	\$20,500	\$41,000
	2-Digital geologic map of the Sheridan Quadrangle and digital surficial geologic maps of the Burgess Junction, Devils Tower, Lance Creek, Lusk, and Sundance Quadrangles, 1:100,000-scale STATEMAP 00	\$24,500	\$24,500	\$49,000
	Total 2001 Funds	\$45,000	\$45,000	\$90,000
2002	1-Geologic map of the Rattlesnake Hills Quadrangle 1:100,000-scale STATEMAP 01	\$24,133	\$24,133	\$48,266
	2-Digital geologic maps of the Buffalo and Recluse Quadrangles and digital surficial geologic maps of the Midwest and Basin Quadrangles 1:100,000-scale STATEMAP 01	\$24,796	\$24,796	\$49,592
	3-Entering map data in National Geologic Map Database STATEMAP 01	\$6,500	\$6,500	\$13,000
	Total 2002 Funds	\$55,429	\$55,429	\$110,858
2003	1-Geologic map of the Kaycee Quadrangle 1:100,000-scale STATEMAP 02	\$23,500	\$23,500	\$47,000
	2-Digital geologic maps of the Kaycee, Reno Junction, and Rattlesnake Hills Quadrangles 1:100,000-scale STATEMAP 02	\$18,437	\$18,437	\$36,874
	3-Geologic map of the Keystone Quadrangle 1:24,000-scale STATEMAP 02	\$28,976	\$28,976	\$57,952
	Total 2003 Funds	\$70,913	\$70,913	\$141,826
2004	1-Geologic map of the Casper Quadrangle 1:100,000-scale STATEMAP 03	\$21,889	\$21,889	\$43,778
	2-Digital geologic maps of the Kinney Rim, Evanson, Kemmerer, and Nowater Creek quadrangles; digital surficial geologic maps of the Nowater Creek and Chugwater quadrangles 1:100,000-scale STATEMAP 03	\$16,745	\$16,745	\$33,490
	3-Geologic map of the Saratoga Quadrangle 1:100,000-scale STATEMAP 03	\$27,532	\$27,532	\$55,064
	4-Geologic map of the Torrington Quadrangle 1:100,000-scale STATEMAP 03	\$23,892	\$23,892	\$47,784
	Total 2004 Funds	\$90,058	\$90,058	\$180,116
2005	1-Geologic map of the Newcastle Quadrangle 1:100,000-scale STATEMAP 04	\$22,803	\$22,803	\$45,606
	2-Digital geologic maps of the Casper and Saratoga bedrock and Saratoga and Rock River surficial Quadrangles 1:100,000-scale; Keystone and Barlow Gap Quadrangles 1:24,000-scale STATEMAP 04	\$19,295	\$19,295	\$38,590
	3-Geologic map of the South Pass Quadrangle 1:100,000-scale STATEMAP 04	\$27,854	\$27,854	\$55,708
	Total 2005 funds	\$69,952	\$69,952	\$139,904
2006	1-Geologic maps of the Midwest and Bill quadrangles 1:100,000-scale STATEMAP 05	\$33,446	\$33,446	\$66,892
	2-Digital geologic maps of the South Pass and Newcastle bedrock and surficial geologic maps of the Baggs and Medicine Bow quadrangles 1:100,000-scale; Guernsey, Guernsey Reservoir, Miners Delight, and Pilot Hill 1:24,000-scale bedrock quadrangles STATEMAP 05	\$26,331	\$26,331	\$52,662
	3-Geologic map of the Sundance Quadrangle 1:100,000-scale STATEMAP 05	\$35,027	\$35,027	\$70,054
	Total 2006 funds	\$94,804	\$94,804	\$189,608
2007	1-Geologic map of Douglas 1:100,000-scale STATEMAP 06 - in progress	\$27,597	\$27,597	\$55,194
	2-Digital geologic maps of the Laramie, Bill, Midwest, and Sundance bedrock; surficial maps of the Gillette and Recluse quadrangles at the 1:100,000 scale; 1:24,000-scale maps of the Howell, Red Buttes, and South Pass City bedrock STATEMAP 06 - in progress	\$28,197	\$28,197	\$56,394
	3-Geologic map of Devils Tower at the 1:100,000 scale STATEMAP 06 - in progress	\$36,077	\$36,077	\$72,154
	Total 2007 funds	\$91,871	\$91,871	\$183,742
2008	1-Geologic map of Rawlins 1:100,000-scale STATEMAP 07 - funded	\$10,277	\$10,277	\$20,554
	2-Digital geologic maps of Douglas, Devils Tower, and Lusk bedrock; surficial geologic maps of the Shirley Basin and Reno Junction quadrangles at the 1:100,000 scale STATEMAP 07 - funded	\$55,235	\$55,235	\$110,470
	3-Geologic map of Lander 1:100,000-scale STATEMAP 07 - funded	\$11,517	\$11,517	\$23,034
	4-Surficial map of Lander 1:100,000-scale STATEMAP 07 - funded	\$5,568	\$5,568	\$11,136
	Total 2008 funds	\$82,597	\$82,597	\$165,194
	TOTALS	\$666,902	\$666,902	\$1,333,804

The STATEMAP Program, part of the National Cooperative Geologic Mapping Program (NCGMP), has significantly expanded and has driven the mapping efforts of the Wyoming State Geological Survey (WSGS) over the past twelve years. The WSGS completed 68 maps using funding from this program since it became involved in 1994; an additional 14 maps were completed independent of the program's funding. Eleven additional maps are in progress with STATEMAP 2007 funding. Current STATEMAP-supported mapping priorities established by the WSGS in cooperation with the Wyoming Geologic Mapping Advisory Committee include: 1) producing geologic maps to support coalbed methane exploration/production activities and associated ground and surface water protection in the Powder River and Green River basins; 2) mapping the more populated areas of the state to assist city and county planners in siting and land-use planning, and providing information to support water resource protection and development; and 3) mapping to support energy/mineral exploration and development.

Wyoming STATEMAP 2007 *Statement of Outcome*



Ver Ploeg, A.J., 1995, Preliminary geologic map of the Red Buttes Quadrangle, Albany County, Wyoming: Wyoming State Geological Survey Preliminary Geologic Map Series PGM-95-2, scale 1:24,000.

Ver Ploeg, A.J., 1996, Preliminary geologic map of the Howell Quadrangle, Albany County, Wyoming: Wyoming State Geological Survey Preliminary Geologic Map Series PGM-96-1, scale 1:24,000.

Ver Ploeg, A.J., 1998, Geologic map of the Laramie Quadrangle, Albany County, Wyoming: Wyoming State Geological Survey Map Series MS-50, scale 1:24,000.

Ver Ploeg, A.J., 1999, and Boyd, C.S., Preliminary geologic map of the Laramie 30' x 60' Quadrangle, Albany and Laramie Counties, northeastern Wyoming: Wyoming State Geological Survey Preliminary Geologic Map Series PGM 99-1, scale 1:100,000.

Ver Ploeg, A.J. and McLaughlin, F., 2006, Preliminary geologic map of the Pilot Hill Quadrangle, Albany County, Wyoming: Wyoming State Geological Survey Open File Report OFR-06-5, scale 1:24,000.

The STATEMAP program has facilitated the Wyoming State Geological Survey (WSGS) mapping effort in the Laramie area since 1994. The 1994 mapping supported the Laramie Drinking Water Protection Plan developed by the City of Laramie Environmental Advisory Committee (EAC) to protect the Casper Formation aquifer recharge area from contamination. At the request of the EAC in 2005, the WSGS used aerial photos and fieldwork to finalize interpretations and define structural geology on the Pilot Hill 24K Quadrangle as part of STATEMAP 2005. This map, along with the Laramie 24K (STATEMAP 1994), the Howell 24K (STATEMAP 1995), the Red Buttes 24K, and the Laramie 100K (STATEMAP 1998) quadrangles, has been essential to Laramie's efforts to refine the Drinking Water Protection Plan and Casper Formation Aquifer Protection Plan. The Laramie 100K map and the Howell and Red Buttes 24K maps are currently being revised, digitized, and moved into the WSGS Map Series as part of STATEMAP 2006.