



State of South Dakota Department of Agriculture

Division of Resource Conservation and Forestry
2007 Annual Report

Photo of *Cathedral Spires*

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Division of Resource Conservation and Forestry

In fiscal year 2007 the Division of Resource Conservation and Forestry went through a re-organization. Since the Division split from Wildland Fire in 2001 we were structured in a geographic service area format. In July of 2006 the Division changed to a team structured format. Each team's focus is on one of our four core programs: Conservation, Forest Health, Service Forestry, and Urban and Community Forestry. Each team has a team leader and a program administrator. The administrators and team leaders are as follows:

- Conservation Team - Pete Jahraus, team leader and program administrator (Pierre office)
- Forest Health Team - Coe Foss, team leader and program administrator (Rapid City office)
- Service Forestry Team - Greg Josten, team leader and program administrator (Rapid City office)
- Urban and Community Forestry Team - Chris Johnson, team leader; Pete Jahraus, program administrator (Pierre office)

Each of the four teams has 2 to 4 field foresters to handle technical assists. Our offices are in Hot Springs, Huron, Lead, Mitchell, Pierre, Rapid City, Sioux Falls, and Watertown.

This year end report highlights our accomplishments and special projects in 2007 by each team. All photos in this report are courtesy of division staff and www.NRCS.usda.gov. For additional copies of this report contact the division office in Pierre at 605-773-3623 or by emailing www.SDRCF@state.sd.us.

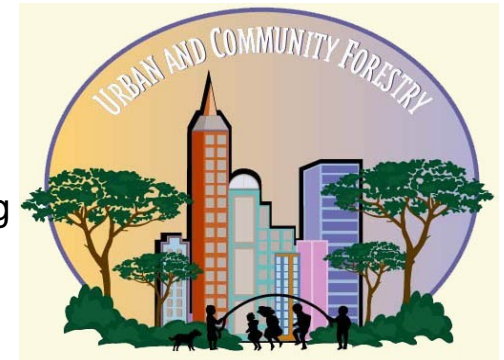


Urban & Community Forestry

Urban & Community Forestry Programs

Community Forestry in South Dakota

In South Dakota over 71 percent of our population lives in urban areas. The division has been offering urban and community forestry (U&CF) technical assistance to individuals, service organizations, non-profit groups, and communities since 1972. The division provides technical assistance for establishing tree boards, developing tree ordinances, organizing street tree inventories, tree planting and maintenance, identifying and controlling insects and disease problems, grant preparation, and administration. The division also provides training in all aspects of urban forestry and arboriculture (the care and maintenance of trees). The division focuses its effort on assisting communities with the development of local community forestry programs.



Local tree boards, which are a very important part of any community forestry program, provide the foundation for most of the community forestry programs in South Dakota. These tree boards which consist of community leaders, city employees, and volunteer citizens, perform a wide variety of functions, including development of tree ordinances, preparation of annual work plans, planning and implementing tree plantings, pruning, and removal projects within the community. They also provide information and education to local citizens, secure and administrate grant funds, and conduct Arbor Day activities. At the present time there are 90 known tree boards across the state.

The U&CF program is financed and administered nationally by the USDA Forest Service through the State and Private Forestry Program. In South Dakota U&CF is administered by the Division of Resource Conservation and Forestry in the Department of Agriculture.

Urban and Community Forestry



Technical Assistance

In 2007 the division made 330 technical assists to community governments, volunteer/service groups and organizations, and private citizens in 61 communities. The assist types cover topics such as Big Tree measurement, damage evaluations, tree care recommendations and advice, and general urban forestry projects and grant applications. In June 2007 the Urban Forestry team members achieved certification through the International Society of Arboriculture (ISA) as arborists.

Green Spaces Newsletter

The Green Spaces Newsletter, managed by the U&CF coordinator is distributed by email once a month. The newsletter contains articles on current and upcoming events in the field of urban forestry. Currently, there are 146 subscribers to this newsletter, many of those being communities and conservation district employees.

South Dakota Big Tree Register

The division also takes measurements of large trees and forwards their nominations to the South Dakota Register of Big Trees in cooperation with the National Big Tree Program administered by the American Forests organization of Washington, DC. A total of 282 trees of 61 different species are recorded on the South Dakota Big Tree Register. Service foresters re-measure big trees in our database every 5 years. In 2007 19 trees were re-measured. South

Dakota continues to maintain two trees recognized as national champions: a Russian-olive located near Rapid City and a Black Hills spruce (our state tree) near Lead. However, the largest tree in South Dakota is a large cottonwood located near Yankton in Yankton County.



U&CF Comprehensive Challenge Grant

Through the Urban and Community Forestry Program, the division has provided financial assistance to our communities each year since 1991. A portion of the division's annual allocation of Urban and Community Forestry Assistance funds from the US Forest Service is awarded to communities in the form of cost share Comprehensive Challenge grants. The grants are used to fund community forestry projects which provide benefits to the general public, solve a specific urban and community forestry problem, demonstrate the importance of trees in our communities, and challenge other organizations to plan and implement similar projects. The community or service organization must match the grant funds on a 50-50 basis. The division has developed the grant to require increased commitment and effort from the local community.

Interested applicants may only apply for one tree planting grant each year. The criteria for the challenge grant are outlined below: *(listed highest to lowest priority)*

- Professional Services – (\$5,000)
- Tree Inventory/Assessment – (\$5,000)
- Existing Tree Care & Maintenance – (\$5,000)
- Education/Training – (\$5,000)
- New Tree Planting – (\$1,000)
- Other Activities – (\$5,000)

Sole tree planting grants are permitted and have a max limit of \$1,000. The other five criteria have a max limit of \$5,000. Communities can apply for a grant with one or more criteria and not to exceed \$5,000. The required match will be met through the volunteer labor, donated and/or purchased supplies, and hard cash. The grant will be open year round and will be awarded on a quarterly basis. Applications forms are available from the state office and field service offices of the Division Resource Conservation and Forestry.



In 2007 six communities were awarded grants totaling \$29,500 in grant funds with project costs totaling \$98,236.76 for the six communities.

Urban and Community Forestry

Urban and Community Forestry Presentations

In 2007 service foresters and the urban forestry specialist made 43 presentations to school classes and civic groups about Arbor Day, Tree City USA, and other urban forestry subjects. Ten workshops on tree planting and care were presented. There were two interviews with Dakota Farm Talk radio program and 17 TV, radio and newspaper spots about Arbor Day, tree planting and care were also produced.



Smokey Bear and Wildland Fire Prevention Presentations

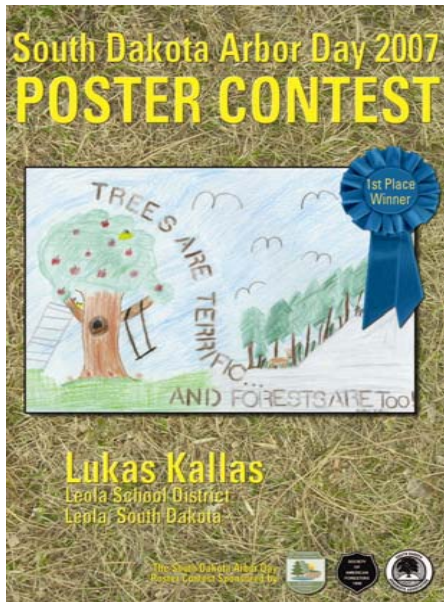
A total of 12 fire prevention and Smokey Bear programs were presented by service foresters to school classes, service organizations and other groups around the state, including appearances by Smokey during State Fire School, State Fair, and at various other events. Smokey Bear fire prevention materials valued at approximately \$3,800 were distributed by service foresters to schools, service organizations, fire departments, and many others who can use and learn from them. Materials were also distributed at the South Dakota State Fair in Huron, Dakota Fest in Mitchell and other major public events.



Urban and Community Forestry

Arbor Day

The last Friday in April was established by the 1947 State Legislature as South Dakota's official Arbor Day. The law was repealed in 1995 as part of an omnibus elimination of laws that restrict or pertain to state education, but re-established by the 1998 Legislature. In 2007, that day was April 27th. It is the one day set aside each year to commemorate and plant trees for the many benefits they provide and the impact they have on our environment. On or around that date, division service foresters provided presentations to school classes, service clubs, and other groups on the importance of planting and properly caring for our rural and urban trees, and of celebrating Arbor Day.



Arbor Day Poster Contest

The division also cooperated with the National Arbor Day Foundation and the US Forest Service to sponsor the 14th annual Arbor Day Poster Contest, open to fifth grade students. Also cooperating at the local level and providing the prize money was the South Dakota Arborists Association and the Dakota Society of American Foresters. The theme of the 2006 contest was "Trees Are Terrific...and Forests are Too!" in celebration of the 135th anniversary of the founding of Arbor Day. The first place winner, Lukas Kallas who attends Leola school, was awarded a \$200 savings bond and an attractive certificate of achievement. Morgan Larson, the second place winner from Canistota Elementary School in Canistota, received a \$150 savings bond and a certificate of achievement. Third place winner, Haylee Grismer of O.M. Tiffany Elementary School in Aberdeen, was awarded a \$100 savings bond and a certificate. Lukas' first place poster was forwarded to the national competition, but was not selected as the national winner.

Urban and Community Forestry

Tree City USA

Tree City USA is a community improvement and national recognition program for towns and cities that meet established standards and effectively manage their public tree resources. The program is sponsored by the National Arbor Day Foundation and the US Forest Service at the national level, and by the South Dakota Division of Resource Conservation and Forestry at the state level. To qualify for Tree City USA designation, a community must meet four standards:

1. Organize a community tree board to oversee the urban & community forestry program
2. Establish and enforce an effective community tree ordinance
3. Implement a community forestry program funded by a minimum of \$2.00 per capita
4. Celebrate Arbor Day with an official proclamation and organized observance

Division foresters re-certified 32 active Tree City USA communities and obtained one more for work done in 2006. This year the community of Aberdeen applied for a Tree City USA Growth Award, for improving their city tree ordinance and by receiving external funding from a local bank. South Dakota's Tree City USA communities with first year of recognition, population, 2006 forestry budgets, and per capita spending are as follows:

Tree City USA	Year First Recognized	Population	Urban Forestry Budget (2006)	Per Capita Spending	Application Received	Anniversary Tree (5yr increments) in 2007
Aberdeen	1980	28,000	\$ 343,425	\$ 12.27	11/28/2006	
Andover	1986					
Baltic	2003	950	\$ 3,000	\$ 3.16	12/28/2006	
Belle Fourche	1991	4,565	\$ 41,477	\$ 9.09	01/11/2006	
Brookings	1982	18,500	\$ 286,050	\$ 15.46	01/03/2007	25 years
Burke	1982	676	\$ 1,500	\$ 2.22	11/30/2006	25 years
Clark	1981	1,285	\$ 42,917	\$ 33.40	12/15/2006	
Deadwood	1992	1,800	\$ 15,667	\$ 8.70	01/06/2007	15 years
Dell Rapids	1984	3,188	\$ 6,954	\$ 2.18	01/03/2007	
Desmet	1997	1,200	\$ 2,746	\$ 2.29	12/28/2006	10 years
Ellsworth Air Force Base	1999	9,954	\$ 106,971	\$ 10.75	01/04/2007	
Freeman	2003	1,317	\$ 9,798	\$ 7.44	12/26/2006	
Gary*	2006	231	\$ 40,000	\$ 173.16	11/27/2006	
Gregory	1984	1,386	\$ 8,000	\$ 5.77	12/13/2005	
Hartford	1992	1,844	\$ 4,282	\$ 2.32	11/27/2006	15 years
Henry	2002					
Huron	1982	11,893	\$ 28,500	\$ 2.40	01/02/2007	25 years
Lead	1987	3,027	\$ 128,400	\$ 42.42	11/30/2006	20 years
Madison	1980	6,225	\$ 16,930	\$ 2.72	12/04/2006	
Mitchell	1980	14,558	\$ 147,012	\$ 10.10	12/01/2006	
Mobridge	1983	3,500	\$ 30,326	\$ 8.66	12/26/2006	
Pierre	1983	13,983	\$ 172,170	\$ 12.31	01/09/2007	
Platte	1995	1,367	\$ 3,170	\$ 2.32	12/07/2006	
Rapid City	1980	59,607	\$ 580,413	\$ 9.74	11/29/2006	
Redfield	1990	2,800	\$ 27,920	\$ 9.97	12/29/2006	
Sinai	2003	133	\$ 360	\$ 2.70	01/08/2007	
Sioux Falls	1980	144,600	\$ 914,800	\$ 6.33	12/11/2006	
Sisseton	1982	2,572	\$ 15,575	\$ 6.06	11/28/2006	25 years
Spearfish	1984	12,000	\$ 27,000	\$ 2.25	11/30/2006	
Spencer	1999	162	\$ 388	\$ 2.39	11/30/2006	
Sturgis	1983	7,000	\$ 36,907	\$ 5.27	12/04/2006	
Vermillion	1984	10,050	\$ 25,100	\$ 2.50	01/03/2007	
Watertown	1982	21,000	\$ 177,010	\$ 8.43	12/13/2006	25 years
Winner	1984	3,137	\$ 29,561	\$ 9.42	01/02/2007	
Yankton	1983	13,969	\$ 63,015	\$ 4.51	01/03/2007	
Total		406,479	\$ 3,337,345			
2000 US Census 754,844		Average Per Capita Spending		\$ 13.29		
54% of S.D. Population live in TCUSA				* indicates new TCUSA		

Project Learning Tree

South Dakota Project Learning Tree, Inc. (SD PLT) is an award-winning environmental education program designed primarily for teachers and other educators working with students in pre-kindergarten through grade eight. Children learn **how** to think -- rather than **what** to think -- about our complex environment, and they have fun learning as they and their teachers work with any of the 93 action-oriented activities described in the *Environmental Education Pre K-8 Activity Guide*.

In 2007, Dianne Miller, the part time coordinator, held workshops, classroom presentations, training events, and Walk in the Forest Days to promote environmental efforts statewide. These efforts were attended by over 5,900 kids.

Walk in the Forest Events created first hand opportunity for over 600 fifth, sixth grade and high school students this past year. Stations were set up where the students were informed about mountain pine beetle infestation, forest ecology, tree species, and fire ecology and how our lifestyles and ecosystems intertwine.

- **Resource Professional Workshop January 17**

A workshop was held training 22 professional resource managers with PLT activities. This workshop targeted folks that are working with students in programs or visiting classrooms to educate about either their profession or lessons about environment. PLT gives them the tools to incorporate fun hands-on activities into their visits.

- **Black Hills State University Pre-service Workshop February 9**

Presenters trained 24 university students preparing for their semester to student teach. These educators have a great opportunity to have 96 ready-to-use lessons to aid the curriculum they will be teaching.

- **Pine Ridge Walk in the Forest March 21, 2007**

Over 60 High School students studied the species of trees, mountain pine beetle infestation, and other forest issues.

- **Early Childhood and Youth and Family Service workshop July 11.**

This workshop was presented to 26 social service educators from Lawrence, Butte, Meade and Pennington. We have been invited back for three years to offer our PLT training.

Conservation Programs

The purpose of the state conservation program is to provide for the conservation of soil and water resources within the state; to prevent or control soil erosion; to prevent or minimize flood damage, and, to conserve, develop, utilize, and preserve the natural resources of this state (SDCL 38-7-1). In addition, the division provides administrative and technical assistance to the State Conservation Commission and conservation districts. The primary programs include; Coordinated Soil and Water Conservation Grant Program, Revolving Loan Fund, Conservation District Programs, and Technical Assistance.

South Dakota Coordinated Natural Resources Conservation Plan

The South Dakota Department of Agriculture, Division of Resource Conservation and Forestry, State Conservation Commission, conservation districts and their federal, state, tribal, and local partners revised the 1991 state conservation plan. Public meetings were held to assess the current conditions of natural resources and the areas of concern that the people of state would like to see addressed with the revision of the plan. Many issues were raised and concerns discussed which resulted in the following seven goals.

- **Goal 1:** All Missouri River watersheds in South Dakota will achieve their environmental, social, and economic values.
- **Goal 2:** All South Dakota waters will provide sufficient quantities of quality water to meet their beneficial uses.
- **Goal 3:** All lands in South Dakota will have quality soils appropriate for their capability.
- **Goal 4:** All of South Dakota will meet air quality standards.
- **Goal 5:** Enhance recreation opportunities and wildlife habitats.
- **Goal 6:** Every South Dakota citizen will have an awareness and understanding of the benefits of natural resource management.
- **Goal 7:** Secure stable funding and financial opportunities for natural resource management. The revised plan was adopted by the 2007 legislature.



Conservation Programs

The Governor provided the conservation grant program an additional \$600,000 in general funds, which increased the 2007 allocation by 50%. These funds are a one time allocation to help the program until a new funding source(s) is approved during next year's legislative session. The program also received funding through outside sources such as Conservation Innovation Grants (CIG) in the amount of \$57,567 for relocating feedlots and to reestablish forested riparian areas; Cooperative Conservation Partnership Initiative (CCPI) in the amount of \$51,175, for completing a Rapid Watershed Assessment; and a technical assistance grant from NRCS for \$17,500.

Support to the State Conservation Commission in 2007 consisted of formulating a plan to find a new permanent funding source(s) for the conservation grant program; establishing a new grant application process (Omnibus Process); revising the grant program rules and funding docket; and updating their annual priorities and work plan.

Conservation Grants

During 2007, 30 grant applications were received and 14 projects were funded for a total of \$390,587.

Revolving Loan Program

Loans can be made to conservation districts or watershed districts for securing, by purchase or otherwise, necessary equipment, trees and other plant materials and supplies needed to further their programs. Loans are made at 3 percent interest per annum. Loans made in 2007 were: Clark, pickup, \$9,300; Clark, compressor, \$2,300; Deuel, no-till drill, \$17,900; for a total of \$29,500.

Conservation District	Project Description	Grant funds Awarded
Perkins	Northwest Area Forester	\$73,864.00
Lincoln	Resource Technician	\$90,000.00
Roberts	Technical Assistance	\$9,143.00
Corson	Resource Technician	\$8,750.00
Grant	Resource Technician	\$17,500.00
American Creek	Resource Technician	\$17,500.00
Codington	Upper Big Sioux RWS & IE	\$3,460.00
Day	Northeast Glacial Lakes	\$42,931.00
Hutchinson	Wolf Creek Stream Segment	\$29,584.00
Kingsbury	Feedlot Reclamation	\$22,500.00
Lawrence	Wind Protection & Livestock	\$27,380.00
Lincoln	Pattee Creek Watershed	\$3,000.00
Miner	Water Quality for Livestock	\$38,475.00
Hanson	Hanson Conservation Program	\$6,500.00

Conservation Program

Conservation District Assistance

In 2007 program staff made 600 grant and loan program assists, 1,175 non-grant related assists, 5 range management assists, 4 planning assists, and conducted QuickBooks® training for 35 district employees.

General Accomplishments

During 2007 conservation program staff provided 15 news and radio releases, 15 policy reviews of other agencies, participated in the National Association of State Conservation Agencies evaluation of the national conservation delivery system, established a workgroup to begin the process for developing a state natural resources inventory, conducted a rapid watershed assessment on the Vermillion River, participated as a “cooperating agency” for the BLM plan revision, developed a quarterly news letter, conducted the state conservation speech contest, developed a conservation district grant reporting section for the accomplishment reporting system, and helped to establish a conservation district work load reporting database.

Rapid Watershed Assessment (RWA)

In 2007 fifteen RWA's are currently being developed or have been completed. Ten additional assessments are being planned for 2008. The Rapid Watershed Assessment process consists of three main steps. First, an initial assessment of existing natural resources in the basin, and the development of a resource profile that describes the current state of the natural resources in the watershed. Secondly, the resource profile will be used to initiate discussion at local meetings about the current status of resources and the resource concerns in the watershed. Based on the local input, priority concerns and available resources to address those concerns will be identified. The third step in the RWA process consists of developing an assessment matrix/implementation plan. The plan will include information on current and future conservation practices including: costs, benefits, current programs, participation rate and potential funding sources. Beginning October 2007, the land within the RWA project area will receive higher priority when applying for technical and financial assistance for the Natural Resources Conservation Service (NRCS) conservation cost share programs, Environmental Quality Incentives Program (EQIP), and the Wildlife Habitat Incentives Program (WHIP).



Conservation Program

Multi-District Projects

A priority was established for funding grants to conservation districts working together in a defined area using joint-powers agreements. Six projects were funded in 2007 including sharing technicians, grassland improvement, well development, cottonwood reestablishment, and shelterbelt establishment.

Vegetative Treatment Area Study (VTA)

The goal of this project is to “evaluate the technical and financial feasibility of vegetated treatment areas as a best management practice for reducing nutrient and sediment loads from 5 animal feeding operations (AFO) holding less than 1,000 animal units and 2 concentrated animal feeding operations (CAFO) holding 1,000 or more animal units”. The 5 AFO’s have been installed and the 2 CAFO’s are expected to be installed in the spring of 2008 under a state individual permit. Performance of the VTA’s will be measured by monitoring the inflows and outflows from the vegetated area. The collected samples will be measured for nutrients (nitrogen and phosphorus), salts, sediment, and fecal coliform bacteria. From these measurements the performance of the VTA will be determined. An economic analysis will also be completed for each VTA. If successful this will provide a low cost alternative to livestock producers when constructing a system for their animal feeding operation.



Forest Health Programs

Forest health management in South Dakota encompasses a wide array of growing conditions, management practices, and host species. The Division of Resource Conservation and Forestry provides more than 1,200 technical assists to private landowners, conservation districts, state parks, and cooperative extension personnel each year. Many of these assists involve injury to individual landowner trees, but many also involve problems with windbreak and shelterbelt trees. Timely information on current pest problems and results of diagnoses are communicated to extension, conservation district and the Department of Game, Fish and Parks personnel, as well as the general public, via a weekly Pest Update located on the division's website.

The mountain pine beetle program, in response to the epidemic in the Black Hills region of South Dakota, continues to yield positive results. The epidemic, now in its 9th year shows no signs of decreasing. The mountain pine beetle population increased dramatically in parts of the Black Hills during the summer of 2007, based on the increase in currently infested trees.



Forest Health Programs

Sawmill Trapping Initiative

The division continued a mass-trapping program at sawmills in the Black Hills area to reduce the potential for pine engraver beetles emerging from infested logs and infesting trees outside of the mills. The trapping program has been very successful at keeping tree mortality adjacent to sawmills at lower levels than they would be without trapping.

Gypsy Moth Trapping Project

The 2007 gypsy moth monitoring program was conducted as a cooperative effort with the USDA Animal and Plant Health Inspection Service (APHIS) and the South Dakota Cooperative Extension Service. The gypsy moth is a defoliating insect that was introduced into New England from Europe in the 1860s. It has spread since then into deciduous forests throughout eastern United States and is now established in Wisconsin and Minnesota. There were 422 traps retrieved and these yielded 12 adult gypsy moths captured in 7 traps. All of these gypsy moths were collected from campgrounds in the Black Hills.

Drought Impacts on Forest Health

Even though portions of the state have regained soil moisture during the past year, a major and continuing concern was drought. Many areas of the state have experienced more than seven years of drought conditions. Most tree species in the state have shown an increase in drought related problems. There has also been an increase in tree mortality in oaks, primarily in the south-central region of the state but also occurring East River and the northern Black Hills. The mortality is due to drought stressed trees becoming infested by two-lined chestnut borer, and native insects that have a population increase during droughts when trees are most vulnerable to attack.



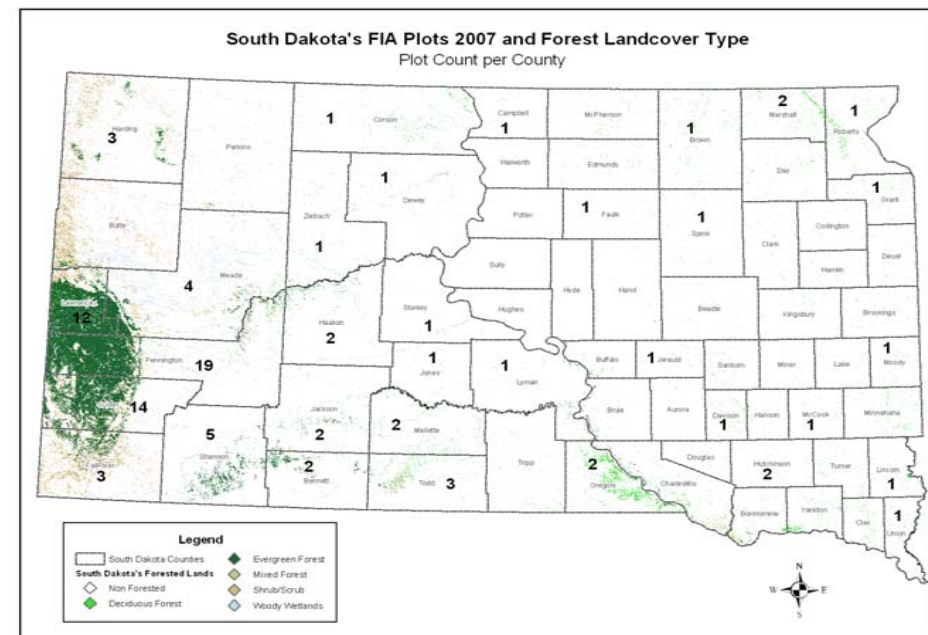
The FIA program combines this information with related data on insects, diseases and other types of forest damaging agents and stresses. This is done to assess the health condition and potential future risks to forests. The program also projects what the forests may be like in 10 to 50 years under various scenarios. This information is essential for evaluating whether current forest management practices are sustainable in the long run and whether current policies will allow future generations to benefit from the many uses that America's forests provide.

In 2007, the division completed the second panel of our second annualized inventory. These re-inventories will show how the state's forest resources are changing as well as how the trees and other forest vegetation are growing and how much has died or has been removed in recent years. They also completed planning for the 2007 inventory season.

In 2007, the State of South Dakota received \$69,636 from the USDA Forest Service, North Central Research Station Forest Inventory Analysis Unit, to inventory 95 P2 forest inventory plots, 25 QAQC plots and 12 ozone plots. The North Central Research Station was solely responsible for collecting data for the P3 (forest health) plots. There were eight (8) P3 plots for the 2007 inventory cycle.

The most recent report on the annualized inventory in South Dakota is for 2006 and can be found at:

http://www.nrs.fs.fed.us/pubs/rn/rn_nrs10.pdf.



Service Forestry Programs

Forest Stewardship Program

Established through the 1990 Farm Bill, the Forest Stewardship Program (FSP) encourages private forest landowners to manage their lands using professionally prepared forest stewardship plans. These plans consider and integrate forest resources, including timber, wildlife and fish, water, aesthetics, and all associated resources to meet landowner objectives. In South Dakota, since 1990, there have been 1,105 plans written covering over 57,000 acres of forest land. In addition to forest stewardship plan preparation, FSP is the primary source of funding for forest management technical assistance provided by the division.

The FSP is financed and administered nationally by the USDA Forest Service through the State and Private Forestry Program. In South Dakota, FSP is administered by the Resource Conservation and Forestry Division, with guidance provided by the State Forest Stewardship Coordinating Committee (FSCC).

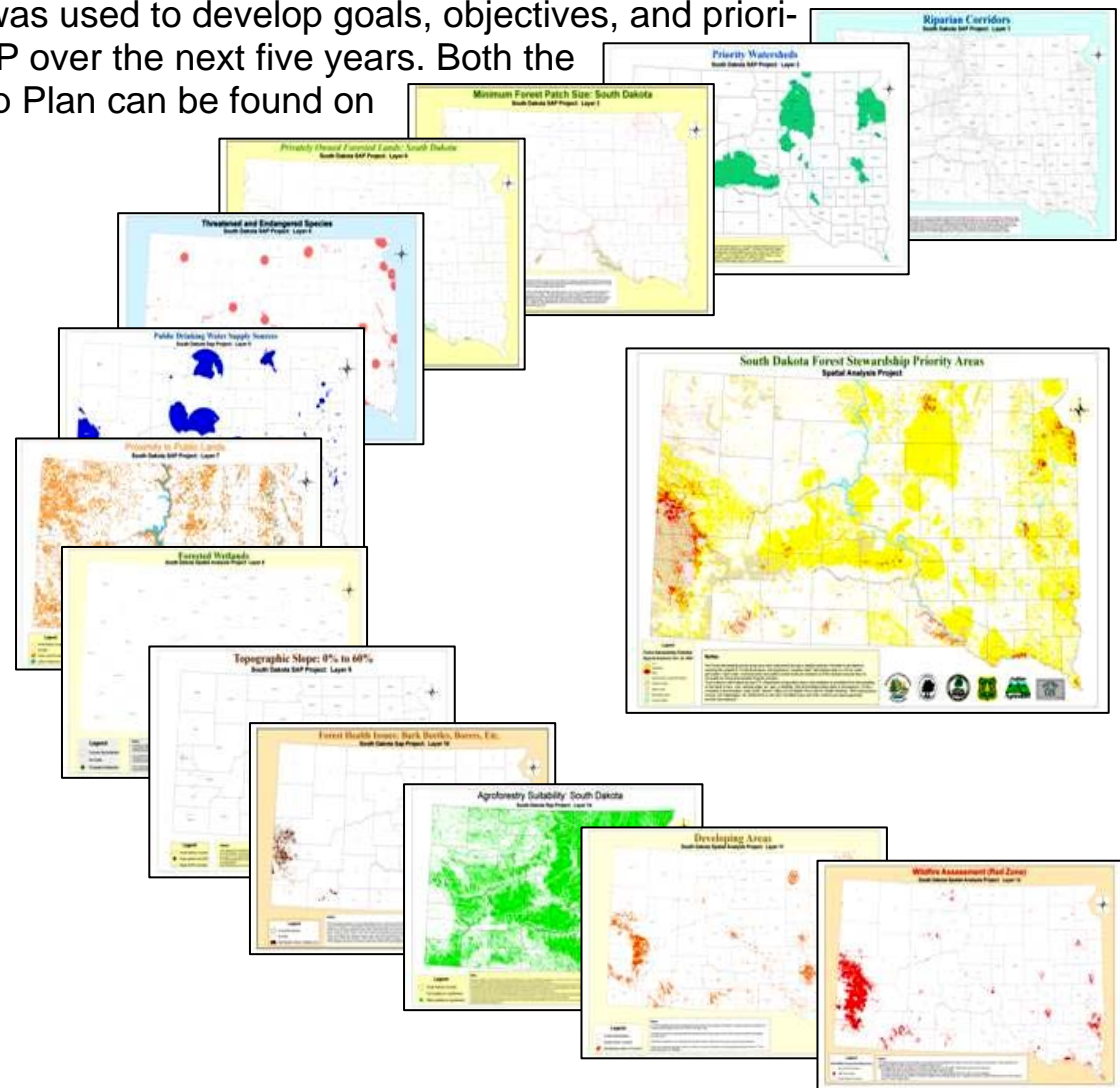
To participate in the FSP, each state must complete and maintain a current state forest stewardship plan. The South Dakota Forest Stewardship Plan was revised in 2007 to reflect current issues and trends affecting non-industrial private forest lands in the state. All members of the FSCC signed the plan indicating their concurrence with its direction.



Service Forestry

Spatial Analysis Project

Revision of the state plan involved the spatial analysis of geographic information system data layers reflecting resource richness and resource threats. These 14 data layers were prioritized with input from the FSCC to develop a single layer illustrating areas of stewardship potential in South Dakota. Details of this process are described in the report “South Dakota Forest Stewardship Program Spatial Analysis Project Summary and Methodology Report.” Information from the Spatial Analysis Project (SAP) was used to develop goals, objectives, and priority areas for guiding state implementation of the FSP over the next five years. Both the methodology report and the SD Forest Stewardship Plan can be found on the division’s website.



Service Forestry Programs



Technical Assistance

In 2007 the division prepared and/or approved six forest stewardship plans for private landowners covering 536 acres. Foresters provided 340 forest management assists, and 309 agroforestry assists.

Assistance and planning by division service foresters resulted in the planting of 55,194 new trees and shrubs on 116 acres for conservation purposes. Restoration was completed in 1 existing windbreak covering 2 acres. Division service foresters assisted with the establishment of 28 new windbreaks and living snow fences covering 57 acres, resulting in the planting of 25,582 trees and shrubs. Wildlife plantings received the most attention from service foresters who designed 30 plantings for 59 acres involving 28,884 trees and shrubs. Most landowners utilized one or more cost share incentive program to help pay the cost of nursery stock and planting. Only a few relied totally upon their own resources to get their trees planted.

Six brochures were written and distributed to educate landowners about the value of windbreaks for different purposes: Riparian Area Management, Windbreak Maintenance and Renovation, Windbreaks for Wildlife, Twin Row High Density Windbreaks, Windbreaks in Sustainable Agricultural Systems, and Windbreaks and Snow Management. All of these brochures can be found on the division website.

Written prescriptions for 11 non-commercial thinning projects were prepared and when completed will result in the improvement of 126 acres of pine and hardwoods. Fieldwork was completed in preparation for 9 non-commercial thinning projects covering 80 acres. Two of the projects are to be completed without cost-share; seven of the projects applied for Wildlife Habitat Improvement Program (WHIP) cost-share. WHIP practices are generally for elk habitat improvement, and are usually not compatible with timber stand improvement objectives.

Non-commercial thinning was completed on 15 projects involving 268 acres of forestland. Seven projects covering 119 acres received cost share under the Forest Land Enhancement Program. Thinning under WHIP was completed on six projects covering 107 acres. The other two thinning projects were completed without cost share.



Service Forestry Programs



Tree Farm Program

The American Tree Farm System promotes good forest management through the certification of sustainable managed woodland Tree Farms, and recognition of well managed windbreaks. There are 195 Tree Farms in South Dakota covering 25,073 acres of forestland and windbreaks. There are 90 certified woodland Tree Farms covering 21,072 acres, and 105 windbreak Tree Farms covering 4,001 acres. Division foresters completed 24 of the 28 Tree Farms inspected in 2007 covering 7,479 acres.

The SD Tree Farm Committee (SDTFC) established a program to help landowners hire consultant foresters to prepare forest stewardship plans for their property. The division provided a \$3,500 grant to fund the program which was matched by the Black Hills Forest Resource Association and the SDTFC. Landowners are required to pay at least 25% of the cost of plan preparation. At the end of fiscal year 2007 four applications totaling \$1,782 had been approved. One plan has been completed.

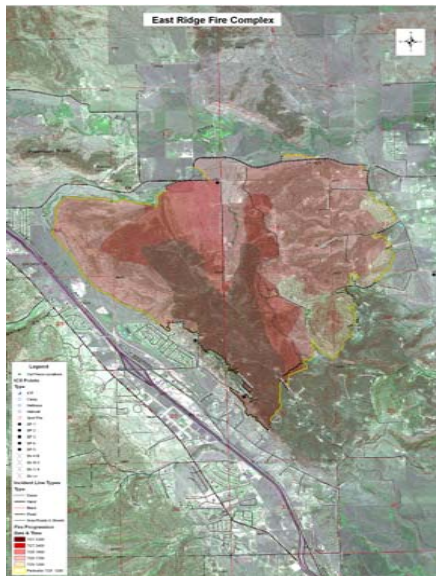
Division foresters nominated the winners of the 2007 Tree Farmer of the Year awards. The 2007 Woodland Tree Farmer of the Year is Crazy Horse Memorial of Custer and the 2007 Windbreak Tree Farmer of the Year is David M. Konechne of Kimball. Division personnel helped the SDTFC present a forestland wildlife management workshop that was attended by 21 landowners.



Service Forestry Programs

Eastridge Fire Rehabilitation

The Eastridge fire burned July 27-30, 2006 in the hogback ridge area north of Rapid City consuming 3,204 acres of grass and timber. Rehabilitation work in critical areas took place from August 28 – October 22, 2006.



The division lead a group of state and federal agencies in providing information and assistance for natural resource recovery options and management recommendations to the landowners within the fire area.

One week after the fire, a rehabilitation and recovery meeting was held with about 140 burn area property owners, natural resource professionals, and logging industry professionals. Field observations, potential insect problems, and management recommendations were presented and discussed. Property owners were given the opportunity to individually meet with resource professionals and logging industry professionals.

In summary, the division provided 25 property owners with management assistance during the rehabilitation. Over 35 property owners had timber salvage operations conducted on their property affecting over 1,500 acres of forest land. Three property owners used a Natural Resource Conservation Service (NRCS) program to defer grazing from burned pastures on 1,050 acres.

Five areas on three properties were identified as having a threat to life and/or property. Four earthen diversions were completed and a straw bale diversion was installed. The earthen diversions were seeded with native grasses and straw mulched at the end of October. Contour felling and seeding of native grasses was accomplished on approximately 3.65 acres.



Service Forestry Programs

Wood Chip Specification Study

As a result of biomass utilization feasibility studies sponsored by the division and completed in 2006, two state facilities in the Black Hills area are in the process of converting to wood chip boiler systems. To assist with the choice of boiler system and wood chip procurement, the division contracted with Biomass Energy Resource Center (BERC) to develop a guide. The resulting product is a report titled “Woodchip Fuel Specifications and Procurement Strategies for the Black Hills” available from the division’s website.

The report identifies five different qualities of wood chips based on the source of the chips. The highest quality chips come from sawmill residues; the lowest quality chips come from community wood waste. Most medium quality fuels come from in-woods chipping operations of various sized material. Procurement strategies for different types and sizes of heating systems were also described.



Prairie Dog Amendment

The Department of Agriculture and Department of Game Fish and Parks have cooperating agency status with the Nebraska National Forest to assist in the development of an amendment to the Land and Resource Management Plan for the management of prairie dogs. The division is representing the Department of Agriculture in this endeavor. By the end of fiscal year 2007, a draft Environmental Impact Statement (DEIS) had been published with five alternatives, including an alternative based on the “South Dakota Black-Tailed Prairie Dog Conservation and Management Plan.” The Departments of Agriculture and Game Fish & Parks developed a coordinated response during the public input process.



Service Forestry Programs

Pine Ridge High School Outdoor Classroom

The division helped Pine Ridge High School set up an outdoor classroom. The Hot Springs forester helped locate a site within walking distance of school that was acceptable to the Tribe and the BIA, provided maps and photos of the site, did basic soil research, identified trees, suggested other trees and shrubs to plant that have traditional importance to the Lakota people, provided recommendations for treating poison ivy that would reduce the risk of harming desirable species, met with various BIA teaching staff and grounds people to help with planning, and attended the dedication.



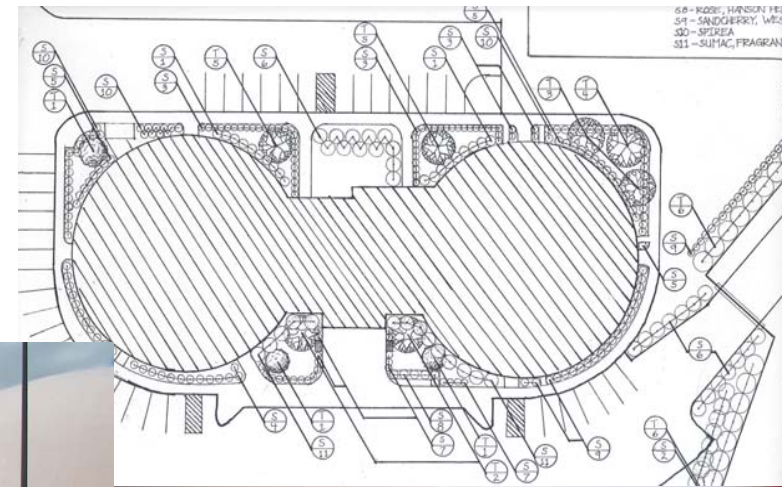
Special Projects

Red Shirt School Planting

In December of 2006 Shannon County School District employees, division foresters, and SDSU faculty and Extension staff started planning a planting project for the Red Shirt newly constructed K-8 school. Shannon County approached the division and SDSU for technical and financial assistance. The division provided a \$5,000, 50/50 cost share grant to the Shannon County School District for the purchase of plant materials.

Throughout the winter and spring foresters from the Forest Stewardship and U&CF teams made presentations to the faculty and students about plants Native Americans used before the Dakotas were settled. These plants were incorporated into the planting design which was completed by the U&CF coordinator.

On May 3 and 4 Red Shirt faculty, students, parents, and division personnel installed the plant material and mulched around the beds. Plant materials were purchased from Pennington CD and from a Rapid City nursery.



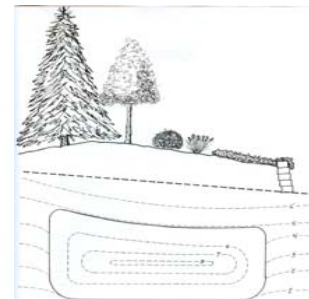
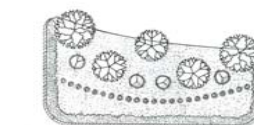
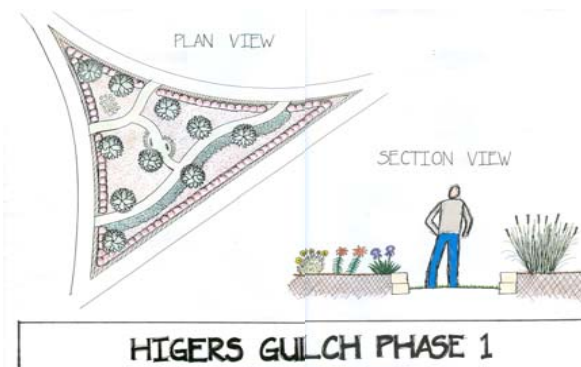
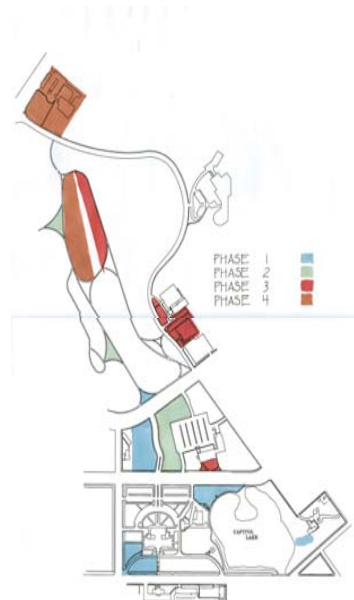
Special Projects

Capitol Grounds Tree Assessment

In May of 2007 Governor Rounds assigned the task of planting trees on the Capitol Complex to the U&CF Coordinator and Buildings and Grounds staff. After discussing the project, it was decided to do a complete tree inventory, write a management plan, and do an overall grounds assessment.

Due to the existing tree cover on the Capitol grounds, the inventory and assessment data was considered when designing the areas where the trees would be planted. This project will have four phases with the first phase being completed the summer of 2008.

The inventory data collection was completed by the U&CF team with help from the Forest Health team and the Conservation team. Data collection started in June and wrapped up in September. The data collected is put into Davey Tree Keeper online database. Each of the trees have also been mapped using GPS.



BOA BUILDING DETAILS

Special Projects

Custer State Park Mountain Pine Beetle Project

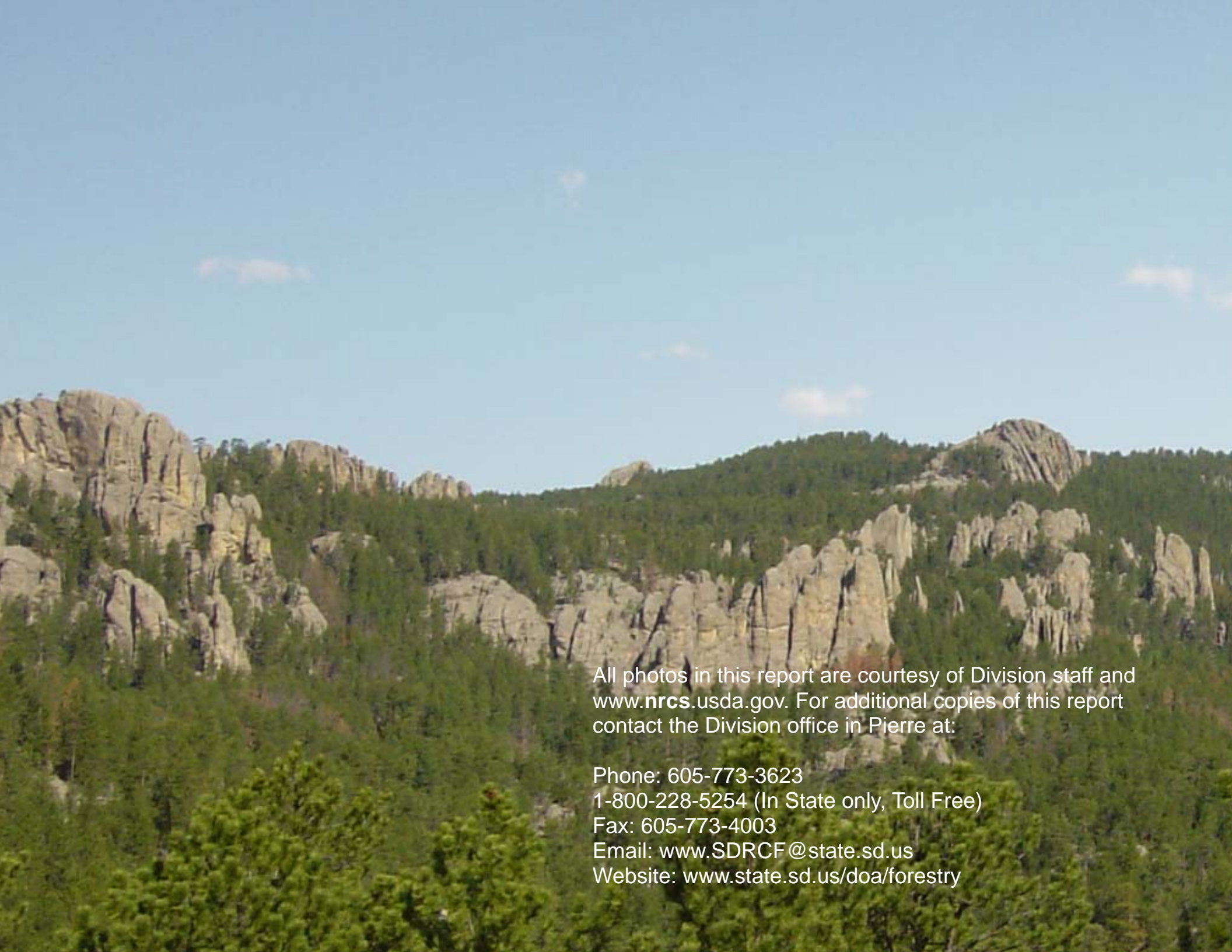
Significant resources are being devoted to the growing infestation of mountain pine beetle in the northwestern corner of Custer State Park. The division continued a program of spot baiting and thinning to reduce the rate of spread from the adjacent Black Elk Wilderness Area to the ponderosa pine forests of the park.

Protection measures were also continued this year for keeping the remnant stand of limber pine free from mountain pine beetle attack. Anti-aggregate pheromones were placed on limber pine of appropriate diameter at the end of June.



The South Dakota Legislature appropriated \$175,000 to establish a buffer between this portion of Custer State Park and the adjacent wilderness area. The buffer will be created by reducing the stand densities on the park side of the border to a level that will make it much more difficult for the mountain pine beetle to infest large numbers of trees in the Park.

To help treat mountain pine beetle infested trees and reduce stand densities in Custer State Park and on private lands, South Dakota has requested funding under the Forest Health Protection section of the US Forest Service in the amount of \$524,125. South Dakota's match would be \$524,125, for a total cost of \$1,048,250. Over the past three years, a total of \$455,250 (federal and state funds) have been spent on this effort.



All photos in this report are courtesy of Division staff and www.nrcs.usda.gov. For additional copies of this report contact the Division office in Pierre at:

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