



State of South Dakota Department of Agriculture

Division of Resource Conservation and Forestry
Fiscal Year 2008 Annual Report

Photo of Stockade Lake

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Photographs

RC&F personnel, Natural Resources Conservation Service website, SD
Dept of Tourism, USFS, GF&P, SD Assoc. of Conservation Districts



Division of Resource Conservation and Forestry

The division continues to operate on a program level along four core programs: Community Forestry, Conservation, Forest Health, and Service Forestry. Each program has a team leader and a program administrator. The administrators and team leaders are:

- State Forester/Division Director - Raymond A. Sowers (Pierre office)
- Community Forestry - Chris Johnson, team leader; Brian Scott, acting program administrator (Pierre and Sioux Falls offices)
- Conservation - Brian Scott, team leader and acting program administrator (Sioux Falls office)
- Forest Health - Coe Foss, team leader and program administrator (Rapid City office)
- Service Forestry - Greg Josten, team leader and program administrator (Rapid City office)

Each of the four teams has two to four field foresters to handle technical assists. Our offices are located in Hot Springs, Huron, Lead, Mitchell, Pierre, Rapid City, Sioux Falls, and Watertown. Contact information for our field offices can be found at www.state.sd.us/doa/forestry and on the last page of this publication.

This year end report highlights our accomplishments and special projects in fiscal year 2008 by each program. All photos in this report are courtesy of division staff, South Dakota Department of Tourism, Department of Game, Fish and Parks, SD Assoc. of Conservation Districts, and Natural Resources Conservation Service website. For additional copies of this report contact the division office in Pierre at 605.773.3623, toll free for in state callers 1.800.228.5254, or by emailing SDRCF@state.sd.us.



New Personnel

The Division of Resource Conservation and Forestry went through personnel changes. In February Tiffany Arp from Michigan came on board as our Community Forester in the Rapid City office.



Tiffany Arp:

I was born and raised in Traverse City, MI. I attended Northwestern Michigan College for two years studying Criminal Justice and Law Enforcement. I then spent a semester studying abroad in Ballyvaughan, Co. Clare, Ireland at the Burren College of Arts studying Irish History, Mythology and local horticulture before transferring to Michigan Technological University in Houghton, MI to study Forestry. I have a Bachelors of Science degree in Forestry with a minor in Ecology. I moved to Rapid City, SD in mid-January. I am the community forester in the division's Rapid City office.

Community Forestry

Community Forestry Programs

Community Forestry (CF) in South Dakota

Over 71 percent of South Dakota's people live within urban areas. The division has offered community forestry (CF) technical assistance to individuals, service organizations, non-profit groups, and communities since 1972. We provide technical assistance to establish tree boards, develop tree ordinances, organize community tree inventories, tree planting and maintenance, identifying and controlling insects and disease problems, grant preparation, and administration. We also provide training in all aspects of urban forestry and arboriculture (the care and maintenance of trees). The CF team focuses its effort on assisting communities with the development of local community forestry programs.



Local tree boards are an important part of any community forestry program. They provide the foundation for most of the community forestry programs in S. Dak. 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, and pruning and removal projects in the community. They also provide information and education to local citizens, secure and administer grant funds, and conduct Arbor Day activities. At the present time there are 95 known tree boards across the state.

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

Community Forestry

Technical Assistance

The division provided 393 technical assists to community governments, volunteer-service groups and organizations, and private citizens in 77 communities. The assists covered topics such as Big Tree measurement, damage evaluations, tree care recommendations and advice, and general urban forestry projects and grant applications.

Green Spaces Newsletter

The Green Spaces Newsletter is distributed by email once a month. The newsletter contains articles on forestry related issues and has current and upcoming events in the field of urban forestry. Currently, there are 156 subscribers to this newsletter, many of those being communities and conservation district employees.

South Dakota Big Tree Register

Our foresters also take measurements of large trees and forwards nominations to the Big Tree Register administered by the American Forests organization in 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 every five years. Twenty trees were re-measured this past year. South Dakota has 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.

Resource Conservation and Forestry - Microsoft Internet Explorer provided by State of South Dakota

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Address <http://www.state.sd.us/doa/forestry/programs-Services/forestry/Register-of-Big-Trees.htm> Go Links

Photo of the division's Big Tree Register web page, the tree pictured is the state champ sugar maple

South Dakota Dept. of Agriculture
Resource Conservation and Forestry

SOUTH DAKOTA REGISTER OF STATE CHAMPIONS BY SPECIES

ABCDEFGHIJKLMNOPQRSTUVWXYZ

Tree Species	Circumference Feet and Inches	Height Feet	Crown Spread Feet	Point Score
<i>pseudotsuga</i> Maple, Norway <i>Acer platanoides</i>	76"	56'	52'	159
Maple, red <i>Acer rubrum</i>	411"	42'	43'	112
Maple, silver <i>Acer saccharinum</i>	2010"	94'	101'	369
Maple, sugar <i>Acer saccharum</i>	1011"	85'	58'	221
Mulberry <i>Morus sp.</i>	106"	58'	53'	197

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Fall #1

Fall #2

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Done Trusted sites

Community Forestry

CF Challenge Grant to Communities

Community forestry challenge grants provided to communities is designated to help communities establish or maintain a community forestry program. This grant has six criteria that best fit a community's needs. These criteria are: professional services/consultants, tree inventory/assessment, existing tree care and maintenance, education/training, new tree planting, and other activities. Communities can select one or more criteria with requested grant funds totaling no more than \$5,000. The grant provides 50% of the funding.

There were nine communities and non-profit organizations awarded grants this past year. The grant recipients are as follows:

- **City of Aberdeen:** Aberdeen was awarded \$5,000 in competitive grant funds for new tree planting (\$1,000), web design (\$3,000), and education/training (\$1,000): Project Officer—Aaron Kiesz.
- **City of Belle Fourche:** Belle Fourche was awarded \$1,000 in competitive grant funds for new tree planting: Project officer—Terry Wolterstorff.
- **City of Gary:** Gary was awarded \$4,000 in competitive grant funds for new tree planting (\$1,000), and tree care and maintenance (\$3,000): Project Officer—Mike Nosbush.
- **City of Hitchcock:** Hitchcock was awarded \$1,000 in competitive grant funds for new tree planting: Project Officer—Cindy Chaplin.
- **City of Milbank:** Milbank was awarded \$1,000 in competitive grant funds for new tree planting: Project Officer—Brad Baldwin.
- **City of New Underwood:** New Underwood was awarded \$3,410 in competitive grant funds for new tree planting (\$1,000), existing tree care and maintenance (\$2,160), and education and training (\$250): Project officer—Benita White.
- **City of Sioux Falls:** Sioux Falls was awarded \$5,000 in competitive grant funds for a park tree inventory (\$4,000) and education/training (\$1,000): Project Officer—Duane Stall.
- **City of Yankton:** Yankton was awarded \$1,000 in competitive grant funds for new tree planting: Project Officer—Stan Hoffart.
- **Central States Fair:** Central States Fair was awarded \$5,000 in competitive grant funds for new tree planting (\$1,000), existing tree care and maintenance (\$2,500), and professional consulting (\$1,500): Project officer—Ron Jeffries.



Tree planting ceremony in Brandon

Community Forestry



Arbor Day Poster Contest Winning Poster

The division cooperated with the Arbor Day Foundation and the US Forest Service to sponsor the 15th annual Arbor Day Poster Contest. This contest is open to fifth grade students. The South Dakota Arborists Association and the Dakota Society of American Foresters provided prize money. The theme of the 2008 contest was "Trees Are Terrific...Inside and Out!" in celebration of the 136th anniversary of the founding of Arbor Day. The first place winner, Maggie Wallis who attends Beadle Elementary in Yankton, was awarded a \$200 savings bond, an attractive certificate of achievement, and her poster was framed and matted. Matthew Skadsen, the second place winner from Robert Bennis Elementary School in Brandon, received a \$150 savings bond and a certificate of achievement. Third place winner, Adrienne Cavill of Canistota Public School in Canistota, was awarded a \$100 savings bond and a certificate. Maggie's first place poster was forwarded to the national competition, but was not selected as a national winner.

Community Forestry Presentations

The community forestry team made 49 presentations to school classes and civic groups about Arbor Day, Tree City USA, Smokey Bear and fire prevention, and other community forestry subjects. Twenty-one workshops on tree planting, tree care, and forest health were presented. There were 18 TV, radio, and newspaper spots about Arbor Day, tree planting and care, and general community forestry issues produced.



Fire prevention talk with Smokey Bear in Redfield

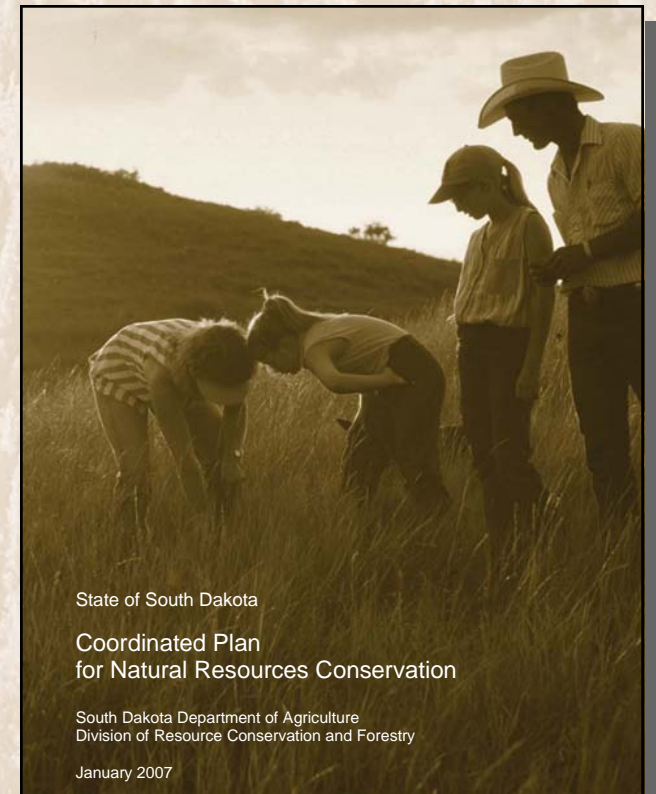
Conservation Programs

The mission 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. In addition, we provide administrative and technical assistance to the State Conservation Commission and Conservation Districts. The primary programs are Coordinated Natural Resources Conservation Grant Program, Revolving Loan Fund, Conservation District Programs, and Technical Assistance to 69 conservation districts.

South Dakota Coordinated Natural Resources Conservation Plan

The State Conservation Commission revised the state conservation plan with the assistance of many partners. The identified goals are:

- **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.



Conservation Programs

Conservation Grants

The State Conservation Commission provided 26 projects totaling \$1,199,937 to local conservation districts.

Revolving Loan Program

Low interest loans are 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% interest per annum. Loans made this year were: Moody Conservation District (CD), pickup, \$12,995.00; Douglas CD, fabric, \$15,000.00; for a total of \$27,995.00. There has never been a default on any loan provided by the commission.

Conservation District Assistance

Program staff made 628 grant and loan program assists, 514 non-grant related assists, 14 planning assists, and conducted four training sessions for 159 district employees and other individuals.

Conservation Commission

Support to the State Conservation Commission in 2008 consisted of working with partners to secure permanent funding for conservation. They also worked on developing a new grant application review approval process. Staff revised the grant funding docket and updated the commission's annual priorities and work plan. The commission met with multiple conservation agencies and groups to establish state priorities and shared visions for conservation in South Dakota.

Conservation District	Project Description	Grant funds Awarded
Moody	Resource Technician	\$90,000
Hyde	NAWCA- Phase 3	\$69,300
Butte	Ponds/Range Improvement	\$90,000
Clark	Wind/Pasture Protection	\$69,108
Dewey	Dewey County Wells	\$38,813
Aurora	Shelterbelts	\$27,092
Jones	Pipelines	\$50,000
Brule-Buffalo	Wildlife Resources	\$22,181
Custer	Biological Pest Control	\$7,600
Mellette	Mellette/Todd Pipelines	\$42,324
Mellette	Pre-approved Practices	\$10,500
Perkins	Northwest Area Trees	\$44,650
Perkins	Cottonwood Re-establishment	\$53,000
Todd	Todd/Mellette Trees	\$5,863.42
Todd	Pre-approved Practices	\$10,500
Beadle	Shelterbelt	\$14,000
Beadle	Wells and Grazing	\$45,000
Hamlin	Tall Grass Prairie Project	\$59,700
Miner	Shelterbelt Renovation	\$19,263.50
Miner	Shelterbelt Program	\$19,637
Douglas	Tree Planting	\$6,400.80
Grant	Tree Planting	\$15,470.80
Ziebach	Well developments	\$210,000
Marshall	Multi-purpose Projects	\$47,633.50
Mellette	Prairie Area Technician	\$104,400
American Creek	Medicine Creek Project	\$27,500

Conservation Programs

Funding

The Governor provided the conservation grant program an additional \$600,000 in general funds which increased this year's grant funds by 50%. This was a one time allocation to help the program until a new funding source is secured. The conservation program also received additional funding through a Conservation Innovation Grants (CIG) in the amount of \$57,567. This grant was for relocating feedlots and to re-establish riparian forested areas. We also received a grant from Cooperative Conservation Partnership Initiative (CCPI) in the amount of \$51,175 to complete a Rapid Watershed Assessment (RWA). A technical assistance grant from NRCS for \$17,500 was provided to the division.



Riparian buffer planting



Water retention area

General Accomplishments

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, developed a state natural resources prioritization process, completed a RWA on the Vermillion River, participated as a "cooperating agency" for the BLM plan revision, published news letters to conservation districts, and conducted the state conservation speech contest.

Conservation Programs

Multi-District Projects

A priority was established for funding grants to conservation districts working together in a defined area using joint-powers agreements. Eight projects were funded this year including sharing technicians, grassland and wetland improvement, well development, cottonwood re-establishment, 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 five animal feeding operations (AFO) holding less than 1,000 animal units and two concentrated animal feeding operations (CAFO) holding 1,000 or more animal units.” The 5 AFO’s have been installed and one of the 2 CAFO’s was 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 (N and P), 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 lower cost alternative to livestock producers when constructing a system for their animal feeding operation.

Both photos are of a vegetative treatment area north of Sioux Falls, on Bly Brothers' property

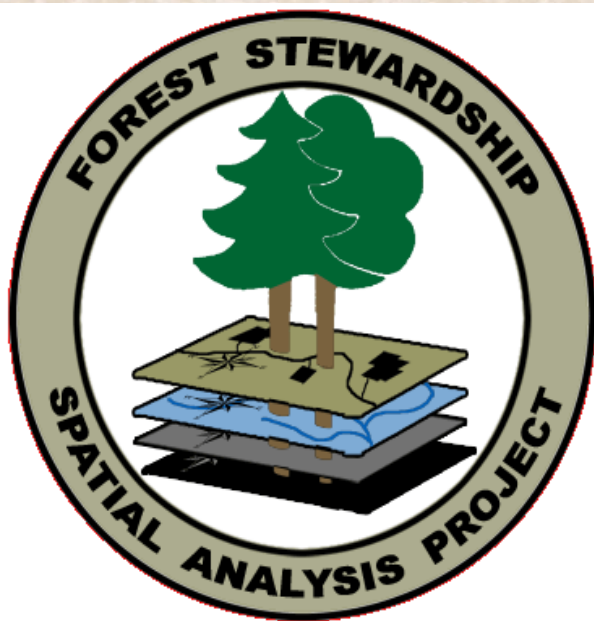


Service Forestry

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 1,117 plans written covering over 63,000 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 US Forest Service through the State and Private Forestry Program. In S. Dak., 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.



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 S. Dak. 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 S. Dak. Forest Stewardship Plan can be found on the division's website:

<http://www.state.sd.us/doa/forestry/programs-Services/forestry/foreststewardship.htm>

Service Forestry

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 26,427 acres of forestland and windbreaks. There are 96 certified Woodland Tree Farms covering 22,471 acres and 99 Windbreak Tree Farms covering 3,956 acres. Division foresters completed 32 of the 41 Tree Farm inspections in 2008 covering 2,702 acres.



The South Dakota 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 the plan preparation. At the end of fiscal year 2007 four applications totaling \$1,782 had been approved. One plan had been completed. By the end of fiscal year 2008 three additional applications totaling \$2,275.75 had been approved and six plans have been completed.



Division foresters nominated the winners of the 2008 Tree Farmer of the Year awards. The 2008 Woodland Tree Farmer of the Year is Jorge and Shirley Johnson of Whitewood and the 2008 Windbreak Tree Farmer of the Year award is Steve Horning of Henry.

Photo of Dave Konchone, 2007 Windbreak Tree Farmer of the year (right). Also pictured division foresters John Hinners and Nathan Kafer (left to right).

Service Forestry

Technical Assistance

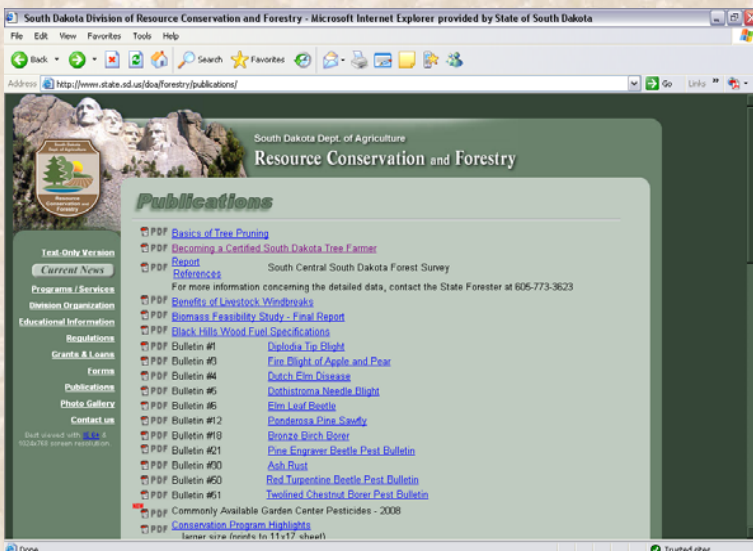
The division prepared and/or approved 12 forest stewardship plans for private landowners covering 6,436 acres and one forest management plan covering 14 acres. We provided 736 forest management assists and 175 agroforestry assists.

Assistance and planning by our service foresters resulted in the planting of 26,369 new trees and shrubs on 69 acres for conservation purposes. Restoration was completed in five existing windbreaks covering 18.7 acres. Our service foresters assisted with the establishment of 22 new windbreaks and living snow fences covering 50.3 acres, resulting in the planting of 20,739 trees and shrubs. Game, Fish and Parks (GF&P) emphasis on tree and shrub planting for wildlife has dropped significantly, resulting in only four plantings for 9.7 acres involving 3,663 trees and shrubs. The Forest Land Enhancement Program funded five new plantings and four renovations of existing windbreaks totaling 27 acres and almost 8,000 trees and shrubs.

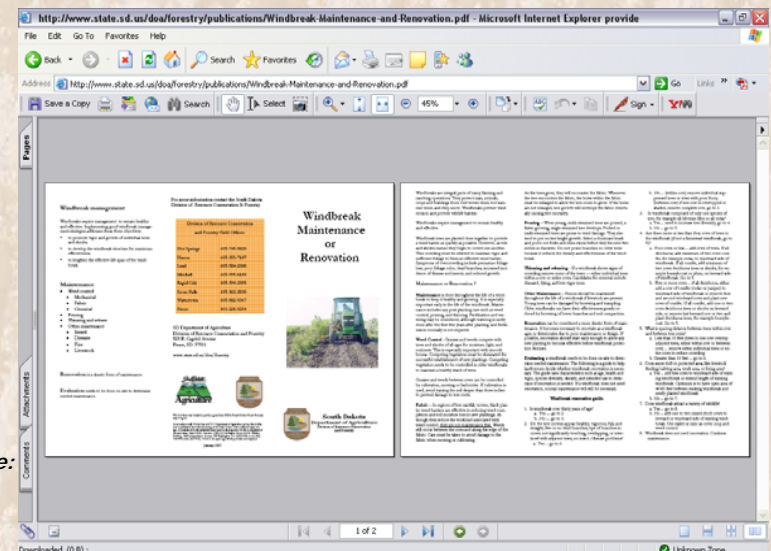
Brochures were written, distributed, and posted to our website to educate landowners about Outdoor Living Barns, Riparian Area Management, and Tips for Selling Your Timber.



Shelterbelt planting



Captions from the division's website:
(left) "Publications" page
(Right) actual brochure



Service Forestry

Written prescriptions for one non-commercial thinning project was prepared and when completed will result in the improvement of 66 acres of pine and hardwood forest lands. Field work was completed in preparation for four non-commercial thinning projects covering 116 acres; one of the projects is to be completed without cost-share, two 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 because so few trees are left on the site after thinning that the stand is left poorly stocked.

Non-commercial thinning was completed on four projects involving 100 acres of forestland. All projects were funded under the WHIP program. This reflects a national trend away from management for timber production, and toward managing for wildlife. However, since WHIP is the only program that is currently offering cost-share for thinning, it is difficult to know if the wildlife objective is driving the desire for thinning, or the availability of cost-share is driving the projects.



Thinned forest stand



Sawyers in Custer State Park

Service Forestry

Alabaugh Fire Rehabilitation

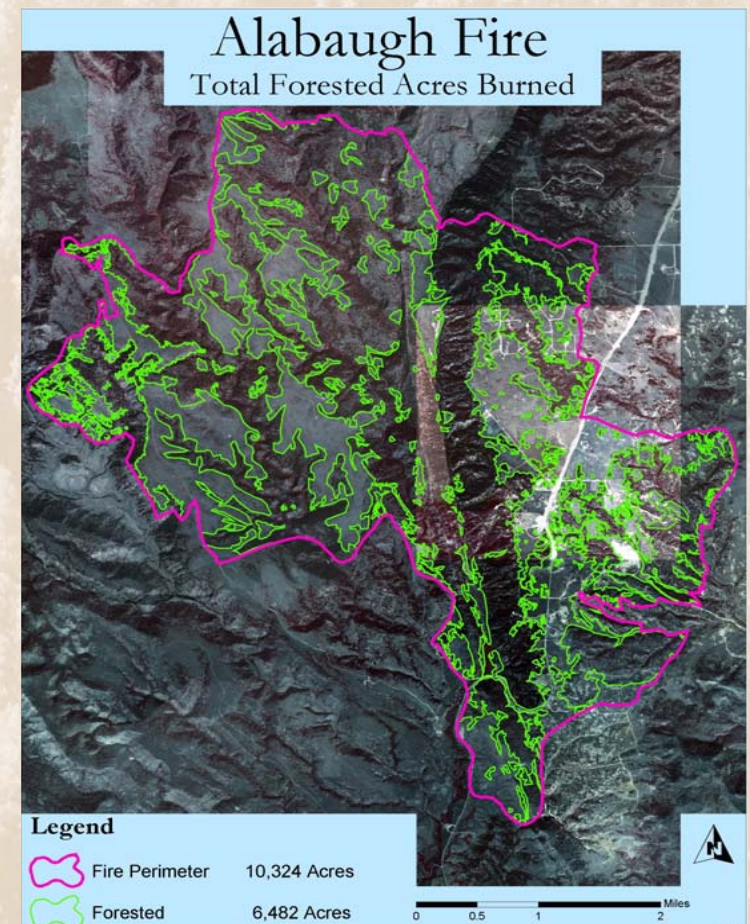
The Alabaugh Fire was started by lightning on Saturday, July 7, 2007, and burned 10,324 acres in southwestern SD near Hot Springs before being contained on Thursday, July 12.

The division led 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.

Within two weeks of the fire a rehabilitation and recovery meeting was held with about 100 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.

All 209 residents affected by the fire were contacted and sent written information about fire recovery. Of those, 35 requested additional information and field assistance; some of those 35 needed multiple assists. We also facilitated many contacts between landowners, industry foresters, and loggers. Approximately 1,500 – 2,000 acres of private forest land was scheduled for harvest.

The southern Black Hills is the driest part of Black Hills, and trees have poor form and little value even in the best of timber markets. The poor quality of the trees, difficult terrain, fire damage, and low timber prices combined to severely limit salvage opportunities. Harvest opportunities for many private landowners simply amounted to cutting and piling their dead trees for burning following a winter snow.



Service Forestry

Evergreen Star Academy Fires Wood Boiler

As a result of biomass utilization feasibility studies sponsored by the division and completed in 2006, Evergreen Star Academy converted its heating system from fossil fuel to wood biomass fuel. The facility began receiving wood chips and fired its boiler for the first time in February 2008. Based on the cost of wood chips at that time, the wood fueled boiler was expected to generate a savings of \$200,000 per year, and use about 40 tons of wood chips per week. These wood chips are residues from forest management activities that would otherwise be burned as waste.



The State Veterans Home in Hot Springs has also been chosen to convert to wood biomass fuel. Conversion of that facility is still in the design phase. Other public facilities have been considering conversion as the price of fossil fuel continues to increase.



*Photos are from Evergreen Star Academy
(Left) Woodchip piles for burning in the boiler
(Right) The boiler system*

Information and Education

Our personnel co-hosted a Windbreak Design Workshop with US Natural Resources Conservation Service (NRCS). The workshop provided training to fifteen division and NRCS field staff on the various shelterbelt designs for snow control, farmstead/livestock protection, wind erosion, and wildlife cover. Other design concerns that were discussed included landowner goals; location and placement of the windbreak; wind direction; time of year the protection is needed; windbreak porosity; species selection and diversity; care and maintenance; and secondary benefits such as fruit production, screening, and dust and odor control.

Forest Health

Forest health management in South Dakota encompasses a wide array of growing conditions, management practices, and host species. The our division foresters provide 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 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 districts and the Department of Game, Fish and Parks personnel, as well as the general public, via a weekly Pest Update located on the our website.

The mountain pine beetle program, in response to the epidemic in the Black Hills region of S. Dak., continues to yield positive results. The epidemic, now in its 10th year, shows no signs of decreasing. The mountain pine beetle population increased dramatically in parts of the Black Hills during the summer of 2008, based on the increase in currently infested trees.



Photo of Cathedral Spires in Custer State Park

Forest Health

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 was completed by the end of May and was successful at reducing the stand densities on the Park side of the border to a level that will make it 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, we worked cooperatively with the park to acquire \$250,000 to use for treating trees infested during the 2008 growing season. This will provide enough funds to treat approximately 12,000 infested trees.

Forest Health

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.

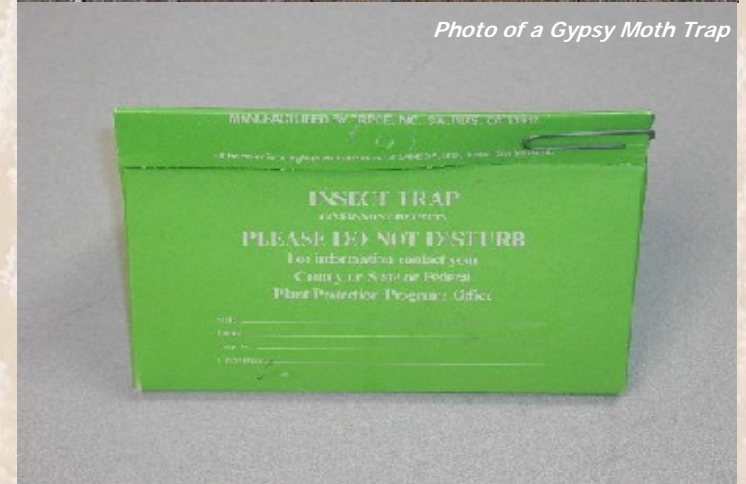
Gypsy Moth Trapping Project

The gypsy moth monitoring program was conducted as a cooperative effort with the US 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 US and is now established in Wisconsin and Minnesota. There were nine traps that had gypsy moths in them. All but one of the traps were in campgrounds in the Black Hills.

Traps placed outside of a sawmill in the Black Hills



Photo of a Gypsy Moth Trap



Project Learning Tree

South Dakota Project Learning Tree Inc. (SD PLT) is widely recognized in the state as a premier environmental education program. This program focuses on the mission to work with formal and non formal educators to educate the youth with the understanding to learn how to think, not what to think, about our environment and natural resources. Our complex environment can be better understood with critical thinking skills, service-learning, and inquiry-based activities found in our PLT basic (Pre-K through 8th grade) and secondary education modules. All of the PLT materials have been written by educators and professional resource managers.

The following workshops/training session were completed:

- **Early Childhood and Youth and Family Service Workshop**
Twenty-six social service educators from Lawrence, Butte, Meade and Pennington Counties attended. We have been invited back for the next three years.
- **Correlations Workshop**
Fourteen educators worked to relate PLT activities to state educational standards.
- **Black Hills State University pre-service workshop**
Thirty-seven fall semester students preparing for spring student teaching attended. This is the fifth year at BHSU with workshops offered during the fall and spring semesters.
- **Outdoor Education Majors at BHSU**
A basic workshop was completed. We also shared in service learning with teaching elementary classes or helped at events.
- **March Digital Distance Learning Network**
Six Digital Distance Network sites allowed 21 educators to participate in a basic workshop.
- **Early Childhood Workshops**
Two workshops focusing on environmental education for preschool children were held; one at BHSU with eight participants, the other at Apple Tree Children's Center in Sioux Falls with 13 participants.



Forester Jessie Halverson giving a presentation to kids at a Walk in the Woods event

Forest Inventory and Analysis

Forest Inventory Analysis (FIA) Program

The FIA program collects, analyzes, and reports information on the status and trends of America's forests. Information is collected on how much forest exists, who owns it, and how it is 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. This information can be used in evaluating wildlife habitat conditions, assessing the sustainability of ecosystem management practices, and supporting planning and decision making activities undertaken by public and private enterprises.

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.

The division completed the second panel of our third annualized inventory and completed planning for the 2009 inventory season. We received \$56,229.00 from the US Forest Service, North Central Research Station Forest Inventory Analysis Unit, to inventory 79 Phase 2 (P2) forest inventory plots, 25 Quality Assurance Quality Control (QAQC) plots, and 12 ozone plots. The North Central Research Station was solely responsible for collecting data for the Phase 3 (P3) (forest health) plots. There were eight (8) P3 plots for the 2008 inventory cycle.

The most recent report on the annualized inventory in South Dakota is titled "South Dakota's Forest Resources, 2006" and can be found at:

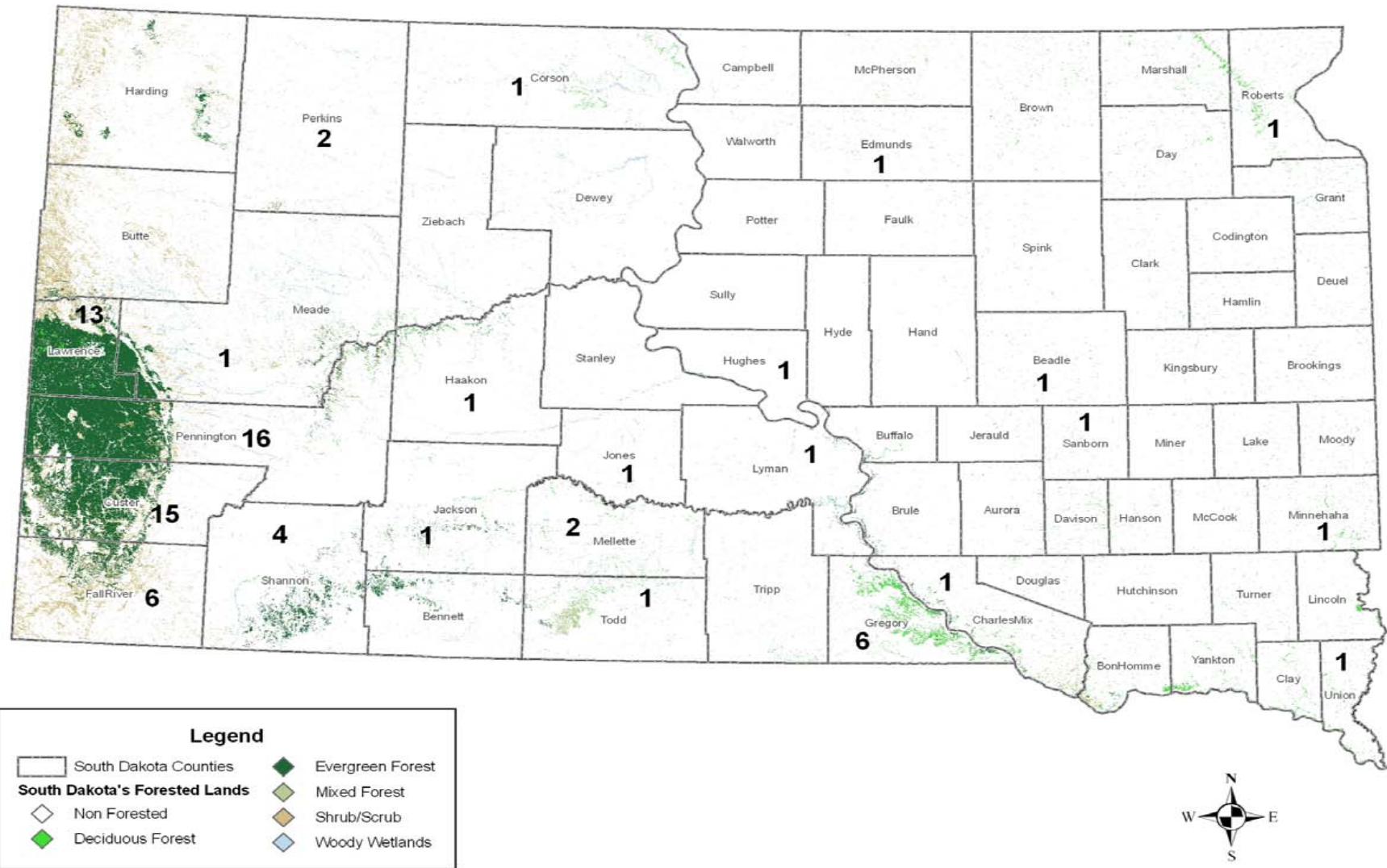
http://www.nrs.fs.fed.us/pubs/rn/rn_rns10.pdf



*FIA crew collecting
field plot data*

Forest Inventory and Analysis

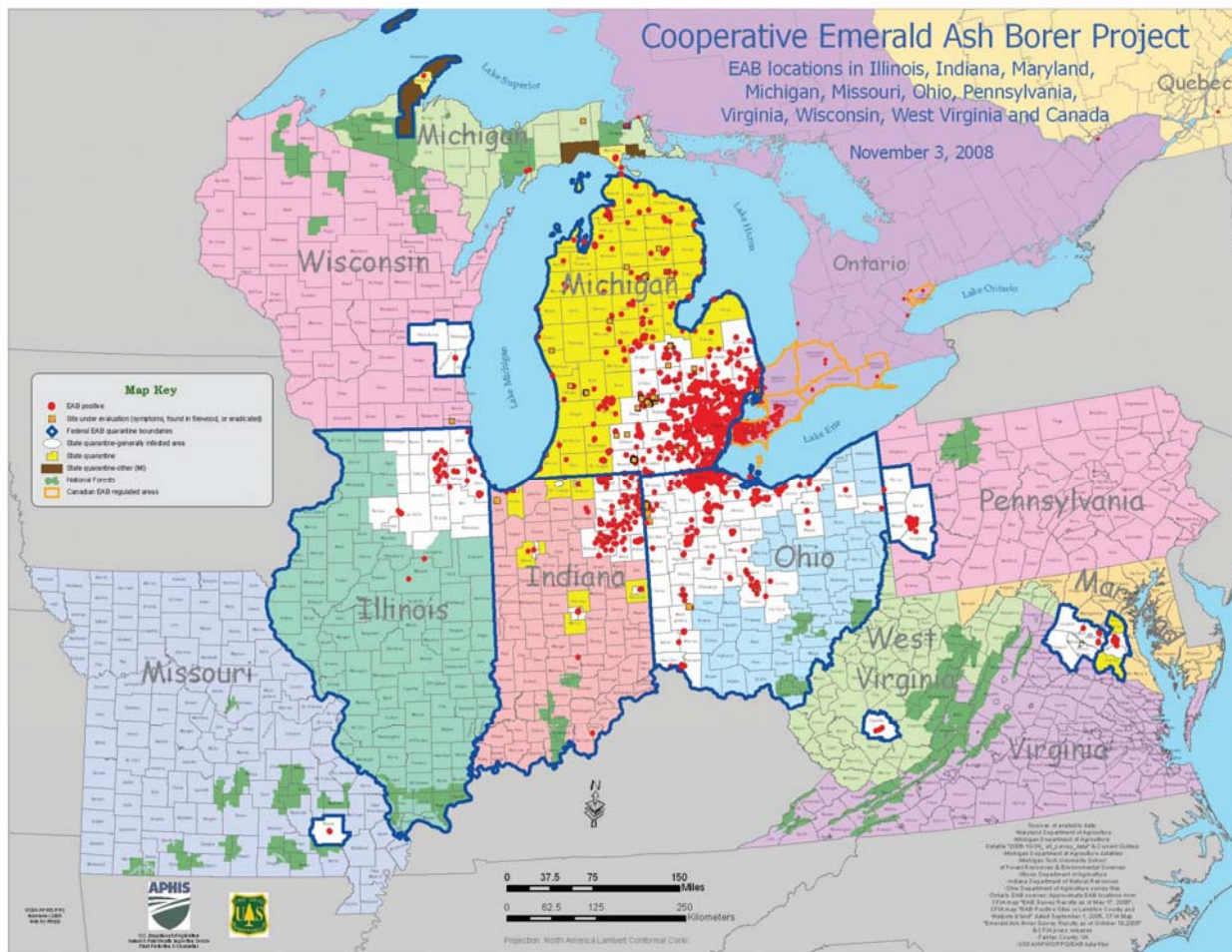
South Dakota's FIA Plots 2008 and Forest Landcover Type
Plot Count per County



Multi-State Great Plains Tree and Forest Invasives

Emerald Ash Borer (EAB) Initiative

The division is alerting nurseries, conservation districts, campground owners, communities, and landowners about the potential threat of the emerald ash borer. This Asian insect has infested thousands of acres of forests, resulting in the loss of more than 50 million ash trees in 10 states and 2 Canadian provinces as seen in the map below. Since many of South Dakota's windbreaks are primarily green ash and this same species is the most common city street tree in the state, the potential damage from an infestation of this insect is very high.



The most likely threat for South Dakota is from the accidental introduction of this pest through infested firewood. The adult EAB emerges from infested wood during the summer months so its emergence is timed perfectly with high campground use from visitors from other states. We have developed a program to educate campground owners and visitors of the possibility of moving this insect and the need to dispose of any firewood brought in from outside the state.

Initiative Prepares for Emerald Ash Borer

The division worked with North Dakota, Nebraska, and Kansas to acquire funding for the Great Plains Emerald Ash Borer Initiative to prepare for the eventual introduction of this insect into the Great Plains. The grant was used to educate the public about EAB, inventory our states to determine the ash levels, estimate the financial impacts on the states, and to have a readiness plan in place for when EAB reaches our states. South Dakota's portion of the \$500,000 grant is \$100,000.

South Dakota began the inventory in late May 2008. The inventory for the 2008 growing season involved a total of 300 plots statewide. There were 200 urban plots and 100 rural plots. One two-person inventory crew was stationed in Pierre and worked the eastern half of the state and the other two-person crew worked out of Rapid City and covered the western half of the state.

(From left to right)

Sioux Falls city forester, Duane Stall peeling bark at an EAB clinic in MI; inspecting an EAB purple trap; intern Nathan Whitman collecting field plot data for the EAB inventory



Tree City USA

Tree City USA

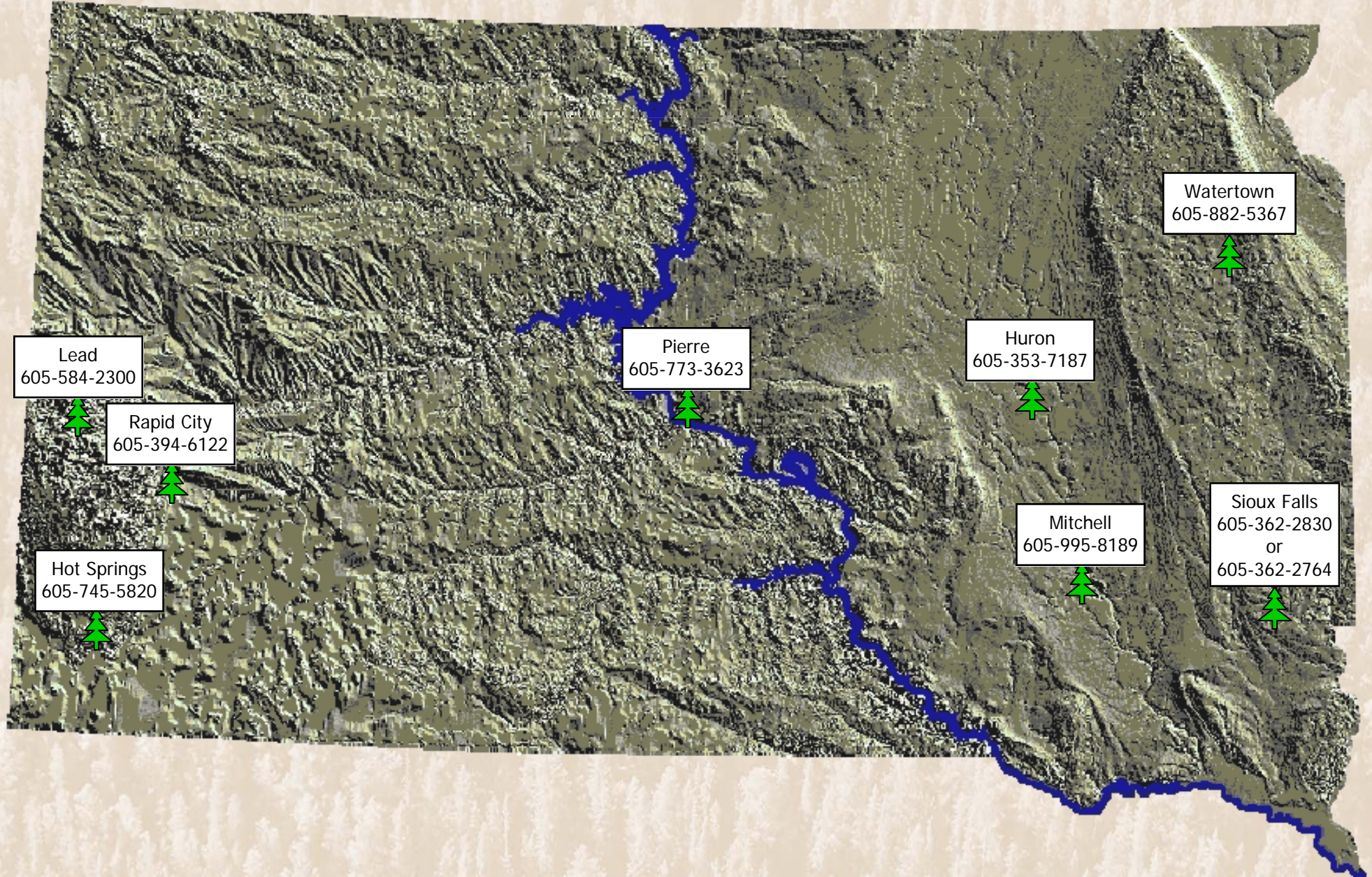
Tree City USA is a community improvement and national recognition program for towns and cities that meet established standards and effectively manage their public tree resources. The program is sponsored by the Arbor Day Foundation and the US Forest Service at the national level, and by the South Dakota 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

Our foresters re-certified 33 active Tree City USA communities in 2008. South Dakota's Tree City USA communities with first year of recognition, population, 2007 forestry budgets, and per capita spending are as follows:

Tree City USA	Year First Recognized	Population	Urban Forestry Budget (2007)	Per Capita Spending	Application Received	Anniversary Tree (5yr increments) in 2008
Aberdeen	1980	28,000	\$ 456,100	\$ 16.29	12/26/2007	
Baltic	2003	950	\$ 1,900	\$ 2.00	12/12/2007	5 years
Belle Fourche	1991	4,565	\$ 51,124	\$ 11.20	01/11/2006	
Brookings	1982	16,500	\$ 306,000	\$ 16.54	12/31/2007	
Burke	1983	676	\$ 2,700	\$ 3.99	12/26/2007	25 years
Clark	1981	1,285	\$ 54,670	\$ 42.54	12/27/2007	
Deadwood	1992	1,400	\$ 21,553	\$ 15.40	01/06/2007	
Dell Rapids	1984	3,241	\$ 24,033	\$ 7.42	12/31/2007	
Desmet	1997	1,200	\$ 7,764	\$ 6.47	11/26/2007	
Ellsworth Air Force Base	1999	10,254	\$ 102,890	\$ 10.03	12/26/2008	
Freeman	2003	1,317	\$ 11,505	\$ 8.74	12/18/2007	5 years
Gary	2006	231	\$ 1,271	\$ 5.50	12/11/2007	
Gregory	1984	1,342	\$ 5,850	\$ 4.36	12/31/2007	
Hartford	1992	1,844	\$ 7,247	\$ 3.93	10/29/2007	
Huron	1982	11,893	\$ 27,300	\$ 2.30	12/10/2007	
Lead	1987	3,026	\$ 14,542	\$ 4.81	01/17/2008	
Madison	1980	6,252	\$ 17,930	\$ 2.87	12/10/2007	
Mitchell	1980	14,558	\$ 129,613	\$ 8.90	12/01/2007	
Mobridge	1983	3,500	\$ 18,370	\$ 5.25	12/26/2006	25 years
Pierre	1983	14,000	\$ 146,465	\$ 10.46	01/09/2007	25 years
Platte	1995	1,367	\$ 2,791	\$ 2.04	12/31/2007	
Rapid City	1980	59,607	\$ 597,843	\$ 10.03	12/06/2007	
Redfield	1990	2,800	\$ 24,729	\$ 8.83	01/03/2008	
Sinai	2003	133	\$ 408	\$ 3.06	01/11/2008	5 years
Sioux Falls	1980	148,000	\$ 846,300	\$ 5.72	12/10/2007	
Sisseton	1982	2,572	\$ 7,745	\$ 3.01	12/26/2007	
Spearfish	1984	12,000	\$ 27,000	\$ 2.25	11/28/2007	
Spencer	1999	170	\$ 534	\$ 3.14	12/14/2007	
Sturgis	1983	6,442	\$ 30,207	\$ 4.69	11/30/2007	25 years
Vermillion	1984	10,050	\$ 25,750	\$ 2.56	12/10/2007	
Watertown	1982	21,000	\$ 230,330	\$ 10.97	12/13/2007	
Winner	1984	3,137	\$ 31,471	\$ 10.03	01/07/2008	
Yankton	1983	13,969	\$ 60,930	\$ 4.36	12/14/2007	25 years
Total						
		409,281	\$ 3,294,863			
		Average Per Capita Spending		\$ 7.87		
2000 US Censu 754,844						
54% of S.D. Population live li						
* indicates new TCUSA						

Division Offices





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