

# State and Private Forestry FY 2010 Western Competitive Resource Allocation Single-State Project Proposal

<b>Filename</b>	
WY_Diversity	
<b>Administration Information</b>	
Dollar Amount Requested:	<b>\$235,000</b>
Matching Share:	<b>\$287,000</b>

Applicant Information															
<b>1</b>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;"><b>State Forestry Agency:</b></td> <td>Wyoming State Forestry Division</td> </tr> <tr> <td><b>Contact Person:</b></td> <td>Bill Crapsen, State Forester</td> </tr> <tr> <td><b>Address:</b></td> <td>1100 W. 22<sup>nd</sup> Street</td> </tr> <tr> <td><b>City/State/Zip Code:</b></td> <td>Cheyenne, WY 82002</td> </tr> <tr> <td><b>Phone (Work/Cell):</b></td> <td>307-777-7586</td> </tr> <tr> <td><b>Email:</b></td> <td>bcraps@state.wy.us</td> </tr> <tr> <td><b>Fax:</b></td> <td>307-777-5986</td> </tr> </table>	<b>State Forestry Agency:</b>	Wyoming State Forestry Division	<b>Contact Person:</b>	Bill Crapsen, State Forester	<b>Address:</b>	1100 W. 22 <sup>nd</sup> Street	<b>City/State/Zip Code:</b>	Cheyenne, WY 82002	<b>Phone (Work/Cell):</b>	307-777-7586	<b>Email:</b>	bcraps@state.wy.us	<b>Fax:</b>	307-777-5986
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Project Information			
<b>2</b>	<b>Descriptive Title of Project:</b>	High Plains Diversity Initiative	
	<b>Names of Partnering Agencies / Organizations:</b>	Wyoming State Forestry Division, UW Cooperative Extension Service, WY Association of Conservation Districts, Cheyenne Urban Forestry Division, Cheyenne Botanic Gardens, Friends of the High Plains Arboretum, Wyoming Small Acreage Issues Team, AmeriCorps, Natural Resource Conservation Service, Wyoming Living Snowfence Committee, Wyoming Community Forestry Council, International Society of Arboriculture-Rocky Mountain Chapter, Local Tree Boards and Municipalities.	
	<b>State(s):</b>	Wyoming	<b>Congressional Districts:</b> 1 (At Large)
	<b>Counties:</b>	all	<b>Forest Service Regions:</b> 2,4

Total Leverage								
Please specify each 3 <sup>rd</sup> party contributor (partnering organizations and agencies, including other Federal) and the dollar value of each contribution. Please DO NOT show grant requested funds in this table.								
<b>3</b>	<b>Contributors:</b> (Please specify by name)	WY Small Acreage Issues Team	City of Cheyenne	Wyoming Conservation Districts	Local Communities	Friends of the High Plains Arb	UW Cooperative Ext. Service	<b>TOTAL</b>
	<b>Value of Contributions:</b>	\$8,000	\$120,000	\$30,000	\$60,000	\$15,000	\$20,000	<b>\$253,000</b>

Project Budget					
	Grant Share (\$ requested)	Applicant	Non-Federal Contributors	TOTAL	
		Cash <sup>1</sup>	In-Kind <sup>2</sup>		
4	<b>Personnel / Labor:</b>	\$20,000	\$20,000	\$80,000	<b>\$120,000</b>
	<b>Fringe Benefits:</b>	\$0	\$0	\$0	<b>\$ 0</b>
	<b>Travel:</b>	\$3,000	\$5,000	\$6,000	<b>\$14,000</b>
	<b>Equipment:</b>	\$0	\$6,000	\$65,000	<b>\$71,000</b>
	<b>Supplies:</b>	\$70,000	\$3,000	\$37,000	<b>\$110,000</b>
	<b>Contractual:</b>	\$115,000	\$0	\$45,000	<b>\$160,000</b>
	<b>Construction:</b>	\$27,000	\$0	\$20,000	<b>\$47,000</b>
	<b>Other:</b>	\$0	\$0	\$0	<b>\$ 0</b>
	<b>Indirect Costs:</b>	\$0	\$0	\$0	<b>\$ 0</b>
	<b>TOTAL:</b>	<b>\$235,000</b>	<b>\$34,000</b>	<b>\$253,000</b>	<b>\$522,000</b>

Project Duration	
5	What is the duration of this project? <input type="checkbox"/> One Year <input type="checkbox"/> Two Years <input checked="" type="checkbox"/> Three Years

National Relevance	
6	Conserve Working Forest Landscapes <input checked="" type="checkbox"/> Protect Forests From Harm <input checked="" type="checkbox"/> Enhance Public Benefits From Trees and Forests <input checked="" type="checkbox"/>

Project Description	
7	<p>Maximum 5500 Characters Including Spaces – Clearly summarize the proposed project, including goals, objectives, measurable outputs, outcomes, and how grant funds will be used towards successful completion of the project.</p> <p>Most communities and rural acreages in Wyoming and other High Plains states are characterized by a limited selection of tree species. This lack of diversity poses a threat from insects, disease, and drought and is limiting the full potential of community forests and rural acreage forests. Many other underutilized and hardy species could and should be planted. The High Plains Diversity Initiative has three main components and involves numerous agencies and organizations. The primary components of the initiative are: 1) Preservation and enhancement of the historic High Plains Arboretum 2) Establishment of nine community and agroforestry demonstration planting sites 3) Education and outreach for landowners, landscape professionals, and communities about alternative tree species and their potential uses.</p> <p>The first objective will be accomplished through preservation efforts, interpretive enhancements, and plant propagation/introduction at the High Plains Arboretum. The High Plains Arboretum is intended to be a resource for a multi-state high plains region. The High Plains region generally consists of much of Wyoming, western Nebraska and Kansas, and Eastern Colorado and New Mexico. The 64 acre arboretum is located within the 2200 acre site of the former High Plains Horticulture Research Station located west of Cheyenne at an elevation of 6,100 feet. Trials</p>

<sup>1</sup> 'Cash' is the value of any qualifying match the applicant pays for such as cash, staff time, supplies, or equipment.

<sup>2</sup> 'In-Kind' is the value of any qualifying match contributed by a non-federal 3<sup>rd</sup> party contributor such as donated time, supplies, or equipment.

on over 1,300 different varieties of woody plants began in 1927 and continued until 1974, when the mission of the Station shifted to rangeland research. Early plant explorers collected trees and shrubs from China, Siberia and many other parts of the world for testing at the station. Additionally, several hybrids were developed at the site. Many of these have been chosen by Plant Select, a program of Colorado State University and Denver Botanic Gardens that promotes unique and adaptable trees and shrubs. Several other unique and rare varieties existing at the Arboretum have the potential for introduction in the nursery trade.

The remaining trees and shrubs are the hardy survivors that have relied mainly on natural precipitation and have received little care for over 30 years. The Arboretum still contains over 240 different species and cultivars of drought hardy trees and shrubs that have proven to be adaptable to the High Plains. A formal agreement in 2007 released the 64 acre core arboretum area to the city of Cheyenne to be managed by the Cheyenne Botanic Gardens and the Cheyenne Urban Forestry Division. Efforts are underway to preserve and enhance this historic site and a 20 year master plan has been completed. Grant funding will be used to make the site more accessible to the public, to accommodate propagation and research, to enhance and preserve a series of irrigation canals that were built by the Civilian Conservation Corps in the early 1930's, to design and install interpretive displays, to engage AmeriCorp volunteers and student interns in development of the Arboretum, and to implement various design components of the master plan.

A second part of the initiative involves establishing nine regional satellite planting sites containing various species from the Arboretum. Five of these will be rural windbreak/living snowfence plantings, and four will be demonstration arboretums in communities located in various climate and elevational environments. The sites will be labeled with information about each species of tree or shrub. Funding will be used to prepare the sites, and to purchase trees, shrubs, and interpretive materials. Local conservation districts, county extension educators, city foresters, and local tree boards will actively be engaged with this component.

The third emphasis of the High Plains Diversity Initiative is to encourage nurseries and landscapers to provide a greater diversity of species, for landscape architects to specify more adaptable trees and shrubs, and to encourage natural resource managers to plant a greater diversity of species to ensure healthier community and rural forests. Funding will be used to research botanical, cultural and historical information on the existing 240 plus species and cultivars as well as many other proven adaptable woody plants. This information will be disseminated through websites, print media, and onsite workshops.

## Program Integration

### Maximum 1250 Characters Including Spaces

8 Many natural resource agencies have a vested interest in expanding species options for the semi- arid and windy environments of the intermountain west. The initiative will be useful for conservation districts, extension agents, urban forest managers, nurseries, and others who are regularly seeking hardy plant material to use as alternatives for less hardy or overplanted species. The High Plains Diversity Initiative will engage several State and Private Forestry Programs including Urban and Community Forestry, Forest Health, and Forest Stewardship. It will be a source of information for urban forest managers, landscapers and nurseries, those involved in agroforestry practices, reclamation efforts, and forestry and botany programs at Universities.

The Initiative will engage groups such as the Wyoming Community Forestry Council, Wyoming Living Snowfence Committee, Wyoming Groundskeepers and Growers Association, the International Society of Arboriculture and others who have a vested interest in improved tree planting efforts through greater species diversity.

## Collaboration

### Maximum 1250 Characters Including Spaces

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The High Plains Diversity Initiative will involve a partnership with many agencies and organizations throughout Wyoming and surrounding states. Those currently involved with the Arboretum planning and development represent the University of Wyoming Plant Science Department and Extension Service, Colorado State University Landscape Horticulture program, USDA Agricultural Research Service, Cheyenne Botanic Gardens and Urban Forestry Division, Wyoming State Forestry Division, Laramie County Conservation District, regional nurseries, and local historians.

Future potential partners include AmeriCorps and their community service volunteers for on site activities, academic professionals and students from the University of Wyoming and Colorado State University for research and technical transfer, organizations with similar interests such as the Nebraska Statewide Arboretum and the National Agroforestry Center for sharing of research and plant adaptability, statewide nursery associations and other arboretums in the High Plains region for plant introduction, and historians with an interest in preserving the history of early plant research.

## Leverage

### Maximum 1250 Characters Including Spaces

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The City of Cheyenne Urban Forestry Division and Botanic Gardens have dedicated considerable staff time and equipment to pruning, mulching, and weed control since formally taking over management of the Arboretum in 2007 and will continue to do so. They are anxiously planning on moving forward with interpretive and restoration efforts. They will oversee the day-to-day operations of the Arboretum. The non-profit Cheyenne Botanic Gardens Foundation will pursue private sector contributions.

The Wyoming Small Acreage Issues Team is committed to reducing the negative natural resource impacts caused by fragmentation of rural lands. They have included articles about the High Plains Arboretum in their magazine and on their website at [www.barnyardsandbackyards.com](http://www.barnyardsandbackyards.com). They will host workshops at the Arboretum and the nine satellite demonstration sites and will provide website resources.

Conservation Districts and local communities will be actively involved with the satellite sites and will provide a local match to grant funds. Many University Extension agents have visited the Arboretum and will be involved with promoting the species found there. The enhanced Arboretum will serve as a training and research site for their outreach efforts.

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## Meaningful Scale

<p><b>Maximum 1250 Characters Including Spaces</b></p> <p>The introduction and planting of a greater variety of species influenced by this initiative will serve many forestry needs. Monocultures of green ash and cottonwood currently dominate many community forests. The Initiative will educate city forestry managers, nurseries, landscape architects, landscapers, extension agents, landowners, and others about many other species that have proven to be adaptable to the region. Greater species diversity will reduce the threat of wide scale loss due to insects, disease, and drought.</p> <p>The initiative will introduce a wide range of alternate species choices for windbreaks. For example, Russian Olive was widely planted in windbreaks until recently being listed as a noxious weed in Wyoming and other states. Resource managers are seeking replacement species to plant for dryland windbreaks and this initiative will introduce them to several alternate choices. Many of the alternative trees produce edible fruit which will lead to enhanced benefits over species selected in the past.</p> <p>The nine satellite plantings will serve as community arboretums and windbreak demonstrations that will educate citizens and inspire more diverse tree species selection throughout the High Plains Region .</p>
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<b>Sphere of Influence</b>	
<p><b>12</b></p> <p><b>Maximum 1250 Characters Including Spaces</b></p> <p>The project will greatly enhance the diversity of plant material options that are available for high elevation, xeric plantings in community and agroforestry settings. The end result will be a greater diversity of species resulting in reduced threat from insects, disease, and drought. Many of the hardy cultivars at the High Plains Arboretum have not yet been introduced to the nursery trade but have high potential for use over a large geographic area.</p> <p>Through the development of the Arboretum, western states will benefit from the research and development of drought, wind, and cold-tolerant trees for forest, community, and agroforestry landscapes. Enhancement of the Arboretum will make this an excellent site for regional and west-wide seminars and learning opportunities, and to continue research on additional species. The nine demonstration planting sites will serve as a hands-on learning opportunity about species adaptability for area communities and landowners.</p> <p>Educational outreach through websites, publications, newsletter and magazine articles, and other media will enable a diverse audience to learn about a wide variety of woody plant species and their adaptability to high elevation, dryland environments.</p>	

<b>Sustainability of Outcomes</b>	
<p><b>13</b></p> <p><b>Maximum 1250 Characters Including Spaces</b></p> <p>This initiative will introduce underutilized dryland tree species for future generations of tree planters throughout a large geographic area. More importantly it will create momentum and enthusiasm among foresters and other natural resource managers for sharing of information about woody plants that will thrive in various high plains and intermountain areas. Forest managers, organizations and individuals will become more engaged in working toward a common goal of encouraging and planting a greater diversity of trees and shrubs.</p> <p>The High Plains Diversity Initiative will encourage development of local arboretums which will serve as a hands-on resource for nurseries, foresters, landscape professionals, and the general public. Natural history research on dozens of woody plants will be documented and made available through various media. Ongoing study of plant adaptability to the High Plains region will be shared among natural resource managers, educators, and various other stakeholders for many years.</p>	