

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

Filename	
NE_MPB	
Administration Information	
Dollar Amount Requested:	\$299,920
Matching Share:	\$299,920

1	Applicant Information	
	State Forestry Agency:	Nebraska Forest Service (NFS)
	Contact Person:	Dr. Scott J. Josiah
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2	Project Information			
	Descriptive Title of Project:	Slowing the Spread and Mitigating the Impact of Mountain Pine Beetle in Nebraska		
	Names of Partnering Agencies / Organizations:	Nebraska Game and Parks Commission, Nebraska Department of Agriculture, North Platte Natural Resources District, Upper Niobrara-White Natural Resources District, University of Nebraska-Lincoln Extension, Nebraska Statewide Arboretum, Inc., Nebraska Arborists Association, Nebraska Nursery and Landscape Association, USDA Forest Service, USDA Natural Resources Conservation Service		
	State(s):	Nebraska	Congressional Districts:	District 3
	Counties:	Banner, Cheyenne, Dawes, Kimball, Morrill, Scotts Bluff, Sheridan, Sioux	Forest Service Regions:	Region 2

3	Total Leverage							
	Please specify each 3 rd 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.							
	Contributors: (Please specify by name)	NSA Inc.	Landowners	Nebraska Dept. of Agriculture				
Value of Contributions:	\$118,950	\$70,000	\$5,000	\$0	\$0	\$0		\$193,950

Project Budget					
	Grant Share (\$ requested)	Applicant	Non-Federal Contributors	TOTAL	
		Cash ¹	In-Kind ²		
4	Personnel / Labor:	\$54,000	\$0	\$92,930	\$146,930
	Fringe Benefits:	\$15,120	\$0	\$26,020	\$41,140
	Travel:	\$12,000	\$0	\$0	\$12,000
	Equipment:	\$0	\$0	\$0	\$ 0
	Supplies:	\$8,800	\$0	\$0	\$8,800
	Contractual:	\$210,000	\$0	\$70,000	\$280,000
	Construction:	\$0	\$0	\$0	\$ 0
	Other:	\$0	\$0	\$0	\$ 0
	Indirect Costs:	\$0	\$110,970	\$0	\$110,970
	TOTAL:	\$299,920	\$110,970	\$188,950	\$599,840

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>This project addresses all 3 S&PF Redesign themes, as well as priorities identified by the Secretary and Chief, including enhancing wildlife habitat, stimulating rural economies and forest restoration.</p> <p>FOCUS: Mountain pine beetle (MPB) is a major pest that was first documented in Nebraska in June 2009. It is known to be present in NE in the southern portion of the western Panhandle in several pine plantings and one location in the Wildcat Hills. Surveys are underway to determine if it is present in other areas of valuable native ponderosa pine. Discovering MPB at this early stage in NE provides an unusual and critical opportunity to mitigate the impacts of this pest through slow-the-spread strategies and protect hundreds of thousands of acres of critically important forested landscapes.</p> <p>PRIORITY: The known locations of MPB in NE include a small infestation near the western edge of the Wildcat Hills, an area in western NE that has significant value for recreation and wildlife habitat and contains 14,418 acres of native</p>

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

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

ponderosa pine forest. The pines in this area have been severely stressed in recent years by intense drought. Some locations have also been impacted by outbreaks of pine tussock moth. The stressed pines in the Wildcat Hills are at significant risk for damage and mortality from MPB if the beetle becomes well established in this critical landscape.

The Pine Ridge, covering approximately 169,716 acres in the northern portion of NE's Panhandle, is another area of native ponderosa pine with significant value for recreation and wildlife habitat. A recent survey for MPB identified four trees near the western edge of the Pine Ridge that may contain MPB. Insect specimens have been submitted for confirmation. Like the forests in the Wildcat Hills, those in the Pine Ridge are severely stressed from intense drought and are at significant risk for damage and mortality from MPB if it becomes well established there.

Community pine plantings, windbreaks, and other plantings in the Panhandle are also at significant risk for damage and mortality from MPB, especially if they contain highly susceptible pine species, such as Scotch pine. Many community plantings are within short distances of known MPB infestations in NE and WY.

Intensive efforts to locate MPB infestations, along with strategic and surgical management efforts that target MPB locations and nearby areas, are needed to slow the spread of this pest, mitigate the damage it could cause in critically important native pine forests and pine plantings, and decrease the risk to life and property from wildfire if MPB kills large areas of forest. The NFS proposes a cooperative effort with the USFS and other agencies and individuals to continue and expand upon what we are doing now to conduct detection surveys, educate the public about MPB, and encourage forest management strategies that slow the spread of MPB and increase the resistance of our valuable pine forests to this damaging pest.

PROJECT GOAL:

To slow the spread of MPB in NE and mitigate its damage in the critical pine landscapes of western NE.

OBJECTIVES:

1. To locate MPB infestations in the Wildcat Hills, Pine Ridge, western communities, and surrounding areas by (1) using intensive trapping and ground surveys and (2) developing and distributing a citizen detection kit, similar to our popular kit for the emerald ash borer, for identifying new MPB locations.
2. To slow the spread of MPB and mitigate its damage by (1) educating the public about MPB and its management, (2) treating high-value trees with recommended insecticides, and (3) reducing the susceptibility of forests by promptly removing and chipping or burning infested trees and thinning overstocked stands.

OUTPUTS:

1. Intensive MPB detection surveys.
2. MPB management publications for forest landowners and homeowners.
3. MPB-targeted stewardship plans and community tree resource assessments.
4. Citizen detection kits for MPB, available to citizens throughout at-risk areas.
5. Tree species recommendations to reduce MPB and fire risk.
6. Four or more workshop presentations on MPB and its management.
7. Six or more media releases on MPB and its management.

OUTCOMES:

1. Healthier and more MPB-resistant native and community forests.
2. Knowledge of MPB locations, leading to more strategic management.
3. Better understanding among landowners and local officials about MPB, how it spreads and how to manage it.
4. Reduced populations of MPB in forests and community and residential landscapes.
5. More fire resistant native forests.
6. Enhanced wildlife habitat.
7. Economic development from treatments, thinnings and biomass for energy production.

GRANT FUNDS WILL BE USED TO:

1. Conduct intensive trapping and ground surveys.

	<p>2. Conduct education and outreach programs about MPB and strategies for its management.</p> <p>3. Develop a citizen detection kit for MPB.</p> <p>3. Partially fund stand thinning (75:25 cost share) of ca. 700 acres in and near MPB-infested areas, likely including areas of the Wildcat Hills State Recreation Area, Wildcat Hills Wildlife Management Area (WMA), Cedar Canyon WMA and Buffalo Creek WMA.</p> <p>4. Partially fund insecticide treatments (75:25 cost share) to protect trees in windbreaks, communities, pine plantings and other high-value pine stands near MPB-infested trees, likely including treatments in the communities of Scottsbluff (pop. 14,732), Gering (7,751), Kimball (2,559), and several smaller communities.</p>
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8	Program Integration
	<p>Maximum 1250 Characters Including Spaces</p> <p>This project incorporates and integrates forest health protection, forest stewardship, community forestry and cooperative fire into a single, comprehensive effort to slow the spread of mountain pine beetle and mitigate the damage it causes. Forest health, forest stewardship, community forestry and cooperative fire staff will develop species recommendations for replacement trees. Stewardship plans developed and followed for thinning overstocked stands will also reduce the danger of catastrophic wildfire, enhance wildlife habitat, provide biomass for energy production and spur economic development. Discussions with local community officials will identify critical trees in the communities threatened by the mountain pine beetle. Cost-share funds will enable communities to protect threatened trees, and community tree resource assessments developed by community forestry staff will make recommendations on how communities can minimize the future impact of this pest.</p>

9	Collaboration
	<p>Maximum 1250 Characters Including Spaces</p> <p>The Nebraska Game and Parks Commission, North Platte Natural Resources District, Upper Niobrara-White Natural Resources District, USDA Natural Resources Conservation Districts, Nebraska Department of Agriculture, and NFS foresters will identify mountain pine beetle locations and forest stands near them in need of thinning and will work with landowners to have the overstocked stands thinned. USDA NRCS and NSA Inc. staff and will work with NFS staff to develop tree species recommendations; and NFS community forestry staff, University of Nebraska-Lincoln Extension staff, and members of the Nebraska Arborists Association and Nebraska Nursery and Landscape Association will work with communities, homeowners and landowners to identify threatened trees, apply needed treatments, and remove and replant trees to reduce the mountain pine beetle threat.</p>

10	Leverage
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	<p>Maximum 1250 Characters Including Spaces</p> <p>This project builds upon current efforts by the NFS and Nebraska Department of Agriculture (NDA) to locate and monitor mountain pine beetle infestations in Nebraska by trapping surveys, ground surveys, and regular communications with local agency and community officials; and it builds upon current efforts by the NFS to work with landowners to thin overstocked stands to reduce fire danger and improve forest health, which helps mitigate the damage the beetle causes. The project also follows the slow-the-spread systems approach developed and used for the gypsy moth in the eastern U.S. The proposed trapping and ground surveys and the citizen detection kits will complement efforts by the NDA and University of Nebraska-Lincoln Extension to locate mountain pine beetle infestations and educate the public about the pest and its management. Owners of infested or threatened trees or overstocked stands near infested areas will cover 25% of the costs of stand thinnings and insecticide treatments needed to mitigate the damage from this pest. USDA NRCS and NSA Inc. will provide assistance in developing tree species recommendations, and NSA Inc. will contribute by providing educational activities through their Panhandle arboretum sites.</p>
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11	Meaningful Scale
	<p>Maximum 1250 Characters Including Spaces</p> <p>This project will be conducted in the Wildcat Hills (14,418 forested acres), Pine Ridge (169,716 forested acres), and surrounding areas and communities of western Nebraska, including Scottsbluff (population 14,732), Gering (7,751), Chadron (5,429), Kimball (2,559), Crawford (1,028), Minitare (779), and Potter (390). Grant and landowner funds will cover the costs of thinning ca. 700 targeted acres or a combination of ca. 675 targeted acres thinned and 100 targeted trees treated. Workshops discussing MPB and its management will be strategically located in several communities with or near MPB infestations so landowners, homeowners, and local community and agency personnel will have a good opportunity to attend. Publications and news releases will focus on local conditions and the management strategies appropriate for the forests and communities in the infested areas. Trapping surveys will be conducted at ca.10 locations annually and will be relocated annually. Ground surveys will be conducted in areas suspected of having MPB infestations. Approximately 500 MPB citizen detection kits will be produced initially. All proposed activities will be within the capability of personnel conducting the project.</p>

12	Sphere of Influence
	<p>Maximum 1250 Characters Including Spaces</p> <p>Publications developed as part of the educational efforts and the citizen detection kits will be available to other states. Newspaper articles and television and radio broadcasts about mountain pine beetle will be seen and heard in nearby areas of neighboring states. The results of our slow the spread efforts for mountain pine beetle could serve as a model for other states dealing with initial outbreaks of the mountain pine beetle or a similar pest.</p>

13	Sustainability of Outcomes
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Maximum 1250 Characters Including Spaces

Successful results from the thinning operations and treatments will show landowners and local officials how effective these approaches are in slowing the spread and mitigating the damage from the mountain pine beetle, and these efforts will likely continue after the end of the project. The educational efforts will leave people aware of how mountain pine beetle is spread and encourage early detection and reporting, which will continue to reduce the number of new mountain pine beetle introductions well into the future. The overstocked forested areas that are thinned will be more healthy and fire resistant and will provide enhanced wildlife habitat for many years.