

Riparian Vegetation Management Grant Program

Overview

Legislative Bill 701 was signed into law by Governor Dave Heineman on May 1, 2007. Sections 3 and 4 of the bill authorized the Director of Agriculture to receive applications for grants and award funding for projects that manage vegetation within the banks of a natural stream or within 100 feet of the banks of a channel of any natural stream. The Legislature indicated its intent to appropriate \$2 million annually for this purpose.

While LB 701 did not specify any requirement for reporting on the progress of this grant program, the Nebraska Department of Agriculture felt it important to outline grant program activities to date due to the financial commitment of State funds and high level of interest in this program.



These pictures serve as an example of the problems to be addressed by the LB 701 Riparian Vegetation Management Grant Program. Both pictures were taken from the same perspective on the Platte River channel near Odessa. The photo on the left was taken in July 2001, while the photo on the right is from September 2007. Phragmites has overtaken the channel.

Photo Courtesy: U.S. Geological Survey, Nebraska Office

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History

The Nebraska Department of Agriculture (NDA) has for a number of years had in place a structure to award weed management grants through the Noxious Weed and Invasive Plant Species Assistance Fund. Prior to the passage of LB 701, this authority had only been used to distribute funds that NDA had been awarded from the Nebraska Environmental Trust. This existing structure and grant process, as well as NDA's involvement with weed management entities as part of the Noxious Weed Program, meant NDA was a logical place to locate the LB 701 Riparian Vegetation Management Grant Program.

Timeline

With the beginning of FY 2007-2008 in July, the \$2 million in grant program funds became available for disbursement. Given the high level of interest in the funds, and the June 2009 sunset date of the program, NDA felt it was necessary to begin the grant program immediately. Fall is the most effective time to treat for weeds, so if the grant program was not immediately



Rhizomes (horizontal stems) in the foreground show how phragmites can quickly spread in the streambed. This stand, on the Platte River near Lexington, has been treated.

Photo Courtesy: NE Department of Agriculture

started, that would have left only one treatment season (fall 2008) to use \$4 million in funding before the grant program sunset. Due to the existence of the Department's Environmental Trust grant program, NDA was able to utilize that framework to quickly implement the LB 701 grant program. The timeline used follows:

April 26, 2007: LB 701 passed by Legislature;

May 1, 2007: LB 701 signed by Governor Dave Heineman;

May 30, 2007: Call for grant proposals disseminated to all County Weed Control Authorities, Weed Management Areas, and Natural Resources Districts (NRDs) in fully or over appropriated river basins; call for proposals news release sent out;

July 1, 2007: Deadline for submission of proposals to the NDA;

July 9-13, 2007: Grant Review Team scores grant applications;

July 19, 2007: NDA awards grants for approved projects; work may begin.

Grant Selection

The Legislature was specific in direction of how the grant funds could be used and who could receive those funds. As outlined in LB 701, the grant dollars are to be used for the management of vegetation within the banks of a natural stream or within one hundred feet of the banks of a channel of any natural stream. Such funds can only be used to pay for “activities and equipment as part of vegetation management programs that have as their primary objective improving conveyance of streamflow in natural streams.”

In addition, grants are only to be disbursed to weed management entities, local weed control authorities, and NRDs whose territory includes one or more fully appropriated or over appropriated river basins as designated by the Department of Natural Resources. Priority for the first year of grants was directed to fully appropriated river basins that are the subject of an interstate compact or decree.

The following is a summary of the four projects funded through the Riparian Vegetation Management Grant Program for fiscal year 2007-08:

Eastern Republican Riparian Improvement Project

Grant Award: \$772,500 to the Twin Valley Weed Management Area. This project continues and expands upon ongoing efforts to control invasive riparian plants around Harlan County Reservoir and along the Republican River and its tributaries within the eight counties of the Twin Valley Weed Management Area (TVWMA). Control efforts are to include a full range of mechanical, biological and chemical tools to control invasive plant species and control vegetation in stream channels to improve streamflow. Also, the project is designed to increase public awareness of the impact that invasive plants have on riparian areas of the Republican River and its tributaries, and the best management practices that can be used to properly manage and maintain riparian areas.



Vegetation growth in the Republican River basin has choked the stream channel.

Photo Courtesy: Eastern Republican Riparian Improvement Project

Status Report: Prior to the grant award, TVWMA officials already were active in the project area, surveying infestations and conducting outreach with riparian landowners. Because of these efforts, project coordinators were able to start helicopter application to the streambed vegetation in September, with ground applications a week later in areas that were not accessible by helicopter. Primary vegetation being targeted was phragmites, willows, cattail, and reed canarygrass, using an aquatic herbicide guaranteed for 90 percent root kill three years after application. High winds and intermittent rain created time delays so the project took a month to complete. Follow-up monitoring indicates successful application. The helicopter sprayed 1,102 acres of river channel vegetation for a total of \$208,791. Ground spraying amounted to \$19,427.



Ground treatment of invasive vegetation followed helicopter application as part of the Eastern Republican Riparian Improvement Project.

Photo Courtesy: Eastern Republican Riparian Improvement Project

The first week of October helicopter applications began on vegetation above Harlan Reservoir. They treated 769 acres in this leg of the project for \$130,909.

Because ongoing maintenance and monitoring is essential to project success, inspection equipment was purchased (half of the cost was paid for by the local natural resources district), including an all terrain vehicle with a 60-gallon tank and spray boom for follow-up applications.

Project coordinators are getting set for Phase II of the project, which involves mechanical removal of debris from the river. This will consist of removing numerous log jams and fallen timber from within

the river channel. Letters have been mailed out to adjoining landowners, again asking for their cooperation and to allow access across their property to affected areas.

Also, as part of this project, coordinators are planning to work with willing landowners to graze livestock along some sections of the riparian corridor. In addition, they are also going to be identifying a segment of the river channel to experimentally deep disc the existing islands to see what scouring effect occurs this upcoming year.

In November, a helicopter mapped the river channel from Harlan Lake to the Cambridge Diversion Dam to identify acres and vegetation for possible future treatment.

Western Republican Riparian Improvement Project

Grant Award: \$814,617 to the Southwest Weed Management Area. This project complements the work being done on the eastern section of the Republican River and extends invasive plant species control westward to the Colorado border. Control efforts will be done using the most appropriate and cost effective option, whether that is mechanical, biological or herbicide control. The project will include some mapping and surveying of invasive species, outreach to landowners on need for invasive control measures and the importance of maintaining improvements, and initial control measures, in cooperation with landowners. The primary targets of this project are saltcedar and phragmites control within the channel, and red cedar and Russian olive within the 100-foot corridor of the stream bank to improve wildlife habitat and grazing opportunities. Field days will be held in each county to educate the public and encourage landowners to maintain control efforts.

Status Report: In late August 2007, a helicopter was hired to map infestations in and along the Republican River. Maps were supplied to interested parties wishing to bid on herbicide applications and tree removal. A ground crew using an airboat began applications to streambed vegetation in October. Once on the river, they found phragmites located in Furnas, Red Willow, and Hitchcock counties. Additionally, a few small saltcedars were located and sprayed. Ground crews sprayed noxious weeds on the river from the diversion dam east of Cambridge until Culbertson, where they ran out of water.

This project purchased a 2008 Polaris to assist with “ground truthing” the river to assist in mechanical bids. This vehicle also will be used to help with maintenance on the river after the grant period has ended.

Bids for mechanical removal of vegetation will be taken in December and mechanical work will begin soon after and continue into the spring.

To date, the project has utilized \$62,966 of the grant award.

Lake McConaughy Saltcedar Control “Surround and Drown” Plan

Grant Award: \$347,883 to the West Central Weed Management Area. This project aims to control a significant saltcedar infestation that has inundated the lakebed as the lake receded due to drought. The project would treat targeted invasives, using chemical, mechanical, and biological control methods, in a designated area of the perimeter to prevent further spread of the vegetation. The invasives below the treated area would be contained until the lake refills, flooding and killing the remaining vegetation.

Status Report: The first phase of this project has been completed, which included herbicide treatment in late August of 2,010 acres of saltcedar and other woody vegetation on the 12,000 acres of exposed lakebed. The final phase of the project will be completed in the fall and winter of 2009/2010, which will include the removal of standing dead vegetation on 1,230 acres in three areas that have been determined to be beneficial for endangered species habitat and/or public recreational access.

Treatment was conducted by helicopter, and no applications were conducted with wind speeds in excess of 10 miles per hour to reduce the opportunity for spray drift. All applications were done with the use of GPS guidance systems and actual sprayed acres were mapped and recorded.

Effectiveness of these treatments will be monitored closely for the next three years as the product guarantee is for 90% root kill three years after application. Annual monitoring of the area for new infestations in new areas will be conducted, and appropriate control measures will be implemented.

Costs of the project to date are \$357,050 for herbicide and application and \$13,694 for administration and oversight. Funds used for project costs to date have been \$347,883 from the Noxious

Weed and Invasive Plant Assistance Fund, \$9,167 from the Nebraska Attorney General's Office, and \$13,694 from Central Nebraska Public Power and Irrigation District of in-kind services.



A helicopter applies chemicals to saltcedar infestation at Lake McConaughy.

Photo Courtesy: CNPPID

High Plains Invasive Species Project

Grant Award: \$65,000 to High Plains Weed Management Association. The High Plains project will educate landowners on invasive control strategies, survey riparian wetlands for invasive populations and initiate control measures, in cooperation with landowners in selected areas. Russian olive, saltcedar, and phragmites will be the primary targets of this project.

This project will specifically work to educate landowners about the need for a comprehensive regional invasive control strategy. An agreement was reached with the PRIDE Weed Management Area to share the cost of printing and distribution of an annual landowner newsletter that provides updated information on the newest, most effective control methods.

Status Report: Each weed control authority involved in this project has mapped known infestations of saltcedar, Russian olive, and phragmites in the North Platte River basin and have spot treated some infestations to date.

This project has treated 55 acres of saltcedar and Russian olive on five sites. The Cedar Canyon area consisted of a solid stand of saltcedar that has been aerial sprayed and will be the focus of a control program. Two areas on the North Platte River were treated by helicopter to control Russian olive, saltcedar and phragmites. One site will be utilized as a demonstration plot for future reference as the treated brush will be removed once the herbicide has controlled the root system. An additional site was aurally treated and the treated brush will be left in place and monitored for the length of time it will take for the dead brush and trees to fall down.

This project has utilized about \$26,000 of the grant award, including funding for aerial spraying and spot treatment of invasive vegetation, and newsletter publication and delivery.

Monitoring Efforts

NDA Noxious Weed Program staff members continue to participate in grant project meetings and monitor control efforts. All grant project coordinators have communicated well with department staff and appear to have good outreach to private landowners affected by the projects. NDA staff members have attended and participated in several public awareness meetings in each project area.

In addition to NDA's involvement in the grant program, LB 701 assigned the Nebraska Game and Parks Commission a role in assisting grant recipients with implementing grant projects. Game and Parks staff has helped review the grant applications and has provided written notification to project coordinators to assist them in understanding their responsibilities under the Nongame and Endangered Species Conservation Act. Game and Parks has helped identify which threatened or endangered species may be found in a specific project area and offered commission staff to assist if needed for surveys or recommendations regarding how not to disturb the species that may inhabit an area. Commission staff created a protocol to follow for each project area and provided contact information for the appropriate staff member for questions or assistance if needed.

There is a high level of interest in this grant program, so to aid in a successful outcome, numerous entities will be involved in the grant projects and the monitoring process. Collaboration is important for statewide weed management, and NDA has had the opportunity to work with regional weed management areas, natural resources districts, wildlife and environmental organizations, irrigation districts, University of Nebraska officials, and other state and federal agencies.

Of course, monitoring by NDA will be ongoing as these projects continue.

What's Next

As NDA maintains engagement in the existing grant projects, we also will begin to develop a timeline for the 2008-09 grant period. Current grant project coordinators will be asked to provide input regarding the grant process to enable the Department to better serve the needs of future applicants. In addition, NDA will take into account discussion that has taken place within the Riparian Vegetation Management Task Force.

Since July 1, 2007, these projects have made tremendous progress in attempting to deal with a huge problem. The volume of private landowners involved in these grant projects is overwhelming, so again, public awareness is a key component to ensure effective and stable control methods are applied and the results are beneficial to the river basin as a whole. Public support continues to be the most valuable tool available for a successful program.