

**Riparian Vegetation Management Task Force  
Annual Report  
July 15, 2024**

(Submitted by Nebraska Department of Agriculture on behalf of Task Force)

**Task Force Overview and Status**

The Riparian Vegetation Management Task Force (RVMTF) was created in statute to bring multiple partners and stakeholders together to address the concern of invasive plants obstructing Nebraska's river basins. The passage of LB 1038 by the Nebraska Unicameral on April 12, 2016, and signed into law by Governor Pete Ricketts on April 18, 2016, created the framework for the Task Force to address the riparian needs of the state and continue the efforts started by LB 701 by the Nebraska Unicameral on April 26, 2007.

Sections 3 and 4 of the legislative bill addressed the requirements for the Task Force, including the requirement for an annual report. An annual report shall be submitted to the Governor and the Legislature by June 30, each year with the first report due on June 30, 2017. The report submitted to the Legislature shall be submitted electronically. Sections 1 and 2 of the legislation created a separate grant program for management of riparian vegetation and tasked the Nebraska Department of Agriculture (NDA) with management of this program.

During the Task Force's existence, the group has met eighteen times.

Meeting dates and locations:

March 8, 2017	Kearney, NE
May 31, 2017	Alda, NE
July 27, 2017	Chadron, NE
October 5, 2017	Waterloo, NE
January 25, 2018	Lincoln, NE
March 8, 2018	Ainsworth, NE
September 9, 2018	Gibbon, NE
December 19, 2018	Lincoln, NE
March 19, 2019	Scottsbluff, NE
June 19, 2019	Alma, NE
September 18, 2019	Grand Island, NE
December 18, 2019	Plattsmouth, NE
March 17, 2021	Virtual Meeting
June 16, 2021	Niobrara, NE
September 16, 2021	Virtual Meeting
December 16, 2021	Virtual Meeting
March 17, 2022	Lincoln, NE
June 30, 2022	Johnstown, NE
November 17, 2022	Virtual Meeting

March 16, 2023  
June 14, 2023

North Platte, NE  
Virtual Meeting

Seven work groups were created during the May 2017 meeting to assist the Task Force in identifying the fundamental needs to carry out the goals and objectives of the legislation. These groups solicit input from non-Task Force members. However, any recommendations will be delivered by the Task Force.

The six current work groups include:

- Goals, Objectives, and Reports
- Vegetation Management and Treatment
- Survey and Monitoring
- Education and Awareness
- Funding and Incentives
- Vegetation Water Use

## Work Groups

### **Task Force Goals, Objectives, and Reports Work Group**

LB 1038 states the task force shall develop and prioritize riparian vegetation management goals and objectives, analyze the cost effectiveness of available vegetative treatment, and develop plans and policies to achieve such goals and objectives. It further states an annual report shall be submitted to the Governor and Legislature by June 30, of each year with the first report due on June 30, 2017.

#### **Actions –**

1. Develop recommendations on vegetation management goals, objectives, and priorities.
2. Recommend the content of preliminary recommendations and final report to the Governor and legislature, and
3. Provide guidance on preparation of the preliminary recommendations and final report utilizing the inputs of the other work groups and the task force.

### **Vegetative Management and Treatment Work Group**

This work group should determine what vegetative management actions are needed to meet the vegetation management goals and objectives.

#### **Actions -**

1. Recommend proactive management and control strategies using the adaptive management approach that utilizes the best techniques currently available.
2. Estimated cost for initial and follow-up control, removal, and management.
3. Analyze cost effectiveness of control, removal, and management options.
4. Develop Templates and Protocols for Control, Revegetation and Rehabilitation, Monitoring and/or long-term Management and Maintenance.

### **Survey and Monitoring Work Group**

Identifying the extent and location of invasive plant problems is essential for effective planning. It is also important to monitor, document and evaluate the control and management efforts. This is key in the use of an adaptive management approach.

#### **Actions –**

1. Summarize past and current management and control efforts.
2. Evaluate past and current management and control efforts.
3. Identify the extent and location of invasive vegetation using available information.
4. Recommend a system for on-going survey and monitoring of management and control efforts.

### **Education and Awareness Work Group**

Since almost all the riparian areas and streambeds are privately owned, riparian vegetation management is dependent upon aware and receptive landowners. A riparian vegetation management plan will not get accomplished without the awareness and commitment of the landowners and the public. It is critical that we have an aggressive education and awareness campaign about the importance of riparian areas and the increasing impacts of invasive plants on these areas. It is essential that the riparian landowners, the general public and decision makers be aware of the need for riparian vegetation management and supports it. They need to be kept informed of task force activities and have a chance for input.

There are many invasive plant information and education activities by numerous groups, but there is no overall plan, campaign or directed effort that identifies target audiences and desired end results utilizing all appropriate strategies, combines and coordinates efforts of all potential partners, or fully utilizes professional information and education specialists.

#### **Actions –**

1. Provide recommendations on how to keep public informed of task force activities and a framework for public input.
2. Review current invasive plant information and education activities.
3. Recommend a framework for a coordinated information and education campaign.

### **Funding and Incentive Program Work Group**

As indicated in the background information for the Streambed Ownership Work Group the riparian owners own to the center of the stream in all rivers. Most of these owners are not taxed on the streambed and are not receiving any income from this land. There are other owners that are receiving some economic return or are receiving some beneficial use such as recreational, hunting; fishing or it is being managed by public and private interests for the benefit of wildlife, endangered

species, plant diversity or natural areas. There is an increasing demand for purchasing stream beds for recreation, hunting and fishing. While all owners (public and private) are responsible for the control of state designated noxious weeds.

**Actions –**

1. Determine if funding is needed to provide incentives, support, and assistance to accelerate control, removal, and management efforts where there are public benefits.
2. Determine the potential federal, state, and local sources of funding of incentive programs.
3. Determine funding needs.
4. Make recommendations as to state and other funding needs.

 **Vegetation Water Use Work Group**

There needs to be a better understanding of the water consumptive use by native plants and non-native plants in riparian areas.

**Actions –**

1. Provide information to the task force on current information on native and non-native plant water consumptive use.
2. Determine what is needed to develop a better understanding of consumptive use of riparian vegetation.

**Riparian Vegetation Management Grant Program**

As noted earlier, sections 1 and 2 of LB 1038 created a grant program for management of riparian vegetation and placed the responsibility for this program with the Nebraska Department of Agriculture. This serves as a natural administrative location for the grant program as NDA already has an existing structure in place in association with its authority over the state Noxious Weed Program.

As per LB 1038A, the Legislature appropriated a total of \$1,000,000 general funds each year (FY2016-17 and FY2017-18) for grants to manage invasive plants in and near rivers and streams. Of the \$1,000,000, \$975,000 was for aid and \$25,000 for administrative costs. Funds were only to be disbursed to weed management entities, local weed control authorities and Natural Resources Districts. During FY2016-17, NDA awarded grants for eight projects totaling \$668,799. During FY2017-18, NDA awarded grants for five projects totaling \$475,000.00. However, this funding was reduced an additional 2% to help the State meet budget shortfalls.

During the 2017 Legislative session, LB 22 reduced the funding for aid to \$675,000 and \$15,000 for administrative costs. Due to state budget shortfalls, the Legislature authorized \$475,000 in grants for FY2017-18. The first call for proposals was disseminated on September 8, 2016, and the second call for proposals was disseminated on June 6, 2017. For the FY2018/19 grant period \$456,000.00 was available and awarded for three projects. The FY2019/20 funding period had

\$456,000.00 available funds awarded to five of the seven projects who applied. For FY2020/21 the Legislature appropriated \$706,000.00 which was awarded seven of nine applications. During FY2021/22, \$706,000.00 was available. Six projects were funded during this period. For FY2022/23, additional funds were made available for the grant program. The total available was \$2,706,000 and six projects were funded.

The following is a summary of funded projects for FY2016/17 through FY2022/23.

## **2016/17 Riparian Vegetation Management Grant Summary**

### **Twin Valley Weed Management Area**

Eastern Republican & Little Blue Riparian Improvement Project (16/17-01)

Total Dollars Requested: \$100,000.00                      Total Dollars Funded: \$100,000.00

This project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican & Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve streamflow along these river systems to help Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources to improve riparian habitat including planting beneficial species as well as pollinators and increase public awareness of the best practices that can be used to properly manage riparian lands.

### **Lower Platte Weed Management Area**

Lower Platte Weed Control & Maintenance Project (16/17-02)

Total Dollars Requested: \$63,294.00                      Total Dollars Funded: \$63,294.00

Indigo bush or false indigo is working in tandem with phragmites and purple loosestrife to negatively impact channel streamflow in the Lower Platte River. It is stabilizing sandbar accretion ground and causing channel narrowing to the point where some channels are at risk of permanent loss of capacity to move water or ice during flood and ice jam seasons. The Lower Platte Weed Management Area (LPWMA) has attempted to control this plant using Imazapyr and other foliar treatments with little or no success. At its current spread and range in some channels this is limiting survey and control efforts on the Lower Platte. The LPWMA proposes to perform cut-stump treatments of indigo bush on a channel of the Lower Platte River to restore streamflow and ice capacity. A contractor will perform the work during late fall and winter months.

Adjacent landowners will participate by stacking the cut material to be burned. LPWMA also plans to purchase and aquatic service vehicle to perform surveys and control work in the Platte River as well as upland aquatic sites. This equipment will be shared by all ten counties in the LPWMA.

### **Panhandle Research Integration for Discovery Education**

Map, Monitor, Educate and Control with PRIDE (16/17-03)

Total Dollars Requested: \$66,505.00                      Total Dollars Funded: \$66,505.00

Panhandle Research Integration for Discovery Education (PRIDE) will focus on the control of yellow flag iris in Sioux County, using a unique and innovative approach to invasive weed mapping in riparian areas. This approach will map infestations of yellow flag iris using a drone with GIS/GPS mapping technology provide expert imagery. Treatment will take place on all know and mapped infestations and the imagery will assist with long-term monitoring and adaptive management planning. Common mullein infestations have increased in disturbed areas of the Pine Ridge and riparian areas. This project will be implementing biological control using the common mullein seed eating weevil. A colony will be established each of the four counties (Dawes, Box Butte, Sheridan, and Sioux). Once populations are sustainable, insects will be relocated. Introduced phragmites has been identified on the White River in Dawes County. PRIDE will map and control phragmites, estimated to be less than 50 acres in numerous small patches. Controlling phragmites now while infestation levels are low is economical and beneficial to riparian biodiversity. PRIDE's publication, *The Weed Watch* will serve as the educational component of this project.

### **High Plains Weed Management Association**

High Plains Invasive Species Project (16/17-04) (Phase Two)

Total Dollars Requested: \$200,000.00                      Total Dollars Funded: \$200,000.00

The High Plains Weed Management Association's project will continue to improve riparian areas in the North and South Platte Rivers and their tributaries. Over the past three years this project has removed over 4,000 acres of Russian olive, saltcedar and phragmites. This project has 1,223 acres to be completed and will focus on 123 miles along the North Platte River and nine miles of the South Platte River.

### **Platte Valley Weed Management Area**

Invasive Species Control within the Central Platte River (16/17-05)

Total Dollars Requested: \$211,000.00                      Total Dollars Funded: \$211,000.00

During the drought years of 2000-2006 invasive species infested and formed thick monocultures within the Central Platte River reducing flow conveyance, reduced wildlife

habitat, increased water consumption by invasive vegetation and reduced diversion of irrigation water. With thousands of acres potentially infested, lack of defined ownership, herbicide restrictions and the need of specialized application equipment landowners cannot effectively control invasive vegetation. Platte Valley and West Central Weed Management Areas have collaborated on this issue since 2008 and have shown great progress. However, yearly maintenance and expansion of control on remaining acres is needed along with implementing a cost-share program to private landowners.

### **Nebraska Weed Management Area Coalition**

Early Detection & Rapid Response in North Central Nebraska (16/17-06)

Total Dollars Requested: \$15,000.00                      Total Dollars Funded: \$15,000.00

The Nebraska Weed Management Area Coalition (NEWMAC) is made up of local Weed Management Areas (WMA's) that brings together landowners, agencies, and organizations in a geographical area to coordinate efforts and expertise against newly recognized invasive plant species. In 2015, 1.5 million acres of Nebraska were infested with state designated noxious weeds. NEWMAC recognizes the need to ensure these noxious weeds continue to be treated. However, NEWMAC recognizes the need for continued surveying and management of additional species that have the potential to become widespread problems. NEWMAC partners will monitor for invasive plants on the Watch List (A list developed by the Nebraska Invasive Species Council). This proactive approach will allow for detection and control of these species before they become established and therefore more difficult and expensive to control. When small infestations are treated early, native plant communities can recover providing quality forage and habitat. NEWMAC will use aerial and ground ocular surveys to document invasive plant species within the creeks and tributaries of the Sandhills and the riparian areas of the South, Middle and North Loup Rivers, Niobrara River, and the Snake River. Infestations will be documented and provided to each local weed control authority. The local weed control superintendent will work with private landowners regarding awareness and control efforts.

### **North Platte Natural Resource District**

Invasive Plant Control in the North Platte River Valley (16/17-07)

Total Dollars Requested: \$3,000.00                      Total Dollars Funded: \$3,000.00

The North Platte Natural Resource District has a long history of spraying noxious weeds and undesirable plants as part of their habitat, tree and buffalograss programs. They have always been limited with boom sprayers mounted on pickups. Terrain and maneuverability have been a hindrance on many of their projects in riparian areas. This project will purchase an ATV wrap-around sprayer to mount on an existing ATV to better attack noxious and invasive species. Additionally, they will purchase a 7 ½ foot disc to aid in site preparation for better inter-seeding and prescribed fire.

**Northeast Nebraska Resource Conservation & Development Council**

Yellow Flag Iris Detection & Control on the Elkhorn River Drainage (16/17-08)

Total Dollars Requested: \$10,000.00      Total Dollars Funded: \$10,000.00

The overall goal of this project is to protect the Elkhorn River and its tributaries from plants that may inhibit flows, impact native vegetation, and/or impact wildlife. Invasive species like yellow flag iris in this case have the potential to negatively impact biologically unique landscapes by competing with or reducing native vegetation invading areas not typically vegetated and reducing water flows in small channels. The Elkhorn River in Holt & Antelope Counties is the focus of this project. This project proposes to aerially survey for yellow flag iris and follow-up with herbicide treatment with landowner permission. They will also investigate other methods of control and provide education through a tour of yellow flag iris infested waters.

**2017/18**

**Riparian Vegetation Management Grant Summary**

**Twin Valley Weed Management Area**

Eastern Republican & Little Blue Riparian Improvement Project (17/18-01)

Total Dollars Requested: \$100,000.00      Total Dollars Funded: \$93,500.00  
2% Reduction: \$1,870.00

The highly successful Eastern Republican & Little Blue Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican & Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican & Little Blue Rivers to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, to improve riparian habitat including re-planting beneficial species, as well as including pollinators, and to increase public awareness of the best practices that can be used to properly manage riparian lands.

**Platte Valley Weed Management Area**

Invasive Species Control within the Central Platte River (17/18-03)

Total Dollars Requested: \$200,000.00      Total Dollars Funded: \$187,000.00  
2% Reduction: \$3,740.00

During the drought years of 2000-2006, invasive species infested and formed thick monocultures within the Platte River of central Nebraska reducing flow conveyance, negatively affecting wildlife habitat, increasing water consumption by invasive vegetation and reducing the ability of irrigators to divert Platte river flows. Known infestations of invasive, non-native phragmites are present along with a new invader, Yellow Flag Iris. With the thousands of acres of infestation, lack of defined ownership, herbicide restrictions and the need for specialized vehicles for application, overwhelmingly, many landowners cannot effectively control their invasive vegetation. Platte Valley and West Central WMA's have collaborated on this issue since 2008 and have made great forward progress, however yearly maintenance and control of remaining acres and drainages/ tributaries is needed, in addition to the implementation of the private lands cost share program. A two-fold approach, direct control and education/ outreach strategy is being proposed to assist landowners to become better informed of invasive species issues and how they can receive assistance in controlling invasive vegetation. It is the intent of the WMA's members to implement Early Detection and Rapid Response (EDRR) approach on new invasive plant species that are detected along the Platte River to avoid huge infestations in the future years.

### **Nebraska Weed Management Area Coalition**

#### Early Detection & Rapid Response in North Central Nebraska (17/18-04)

Total Dollars Requested: \$80,500.00	Total Dollars Funded: \$75,287.50
	2% Reduction: \$1,505.75

The Nebraska Weed Management Area Coalition (NEWMAC) is made up of local Weed Management Areas (WMA's) that bring together landowners, agencies, and organizations in a geographical area to coordinate efforts and expertise against newly recognized invasive weed species.

In 2015, 1.5 million acres of Nebraska were infested with the State Listed noxious weeds. NEWMAC recognizes the need to ensure these noxious species continue to be treated. However, they also recognize the need for continued surveying and management of additional species that have the potential to become widespread problems.

NEWMAC is requesting funding to 1) treat invasive species that were documented in 2016 by surveys and monitoring 2) continue supporting the Weed Watch publication and create new invasive species brochures, 3) implement biocontrol along the Niobrara River for Leafy Spurge and Purple Loosestrife and 4) survey for invasive species on the watch list. All of these objectives assist in enhancing Nebraska's native biodiversity and natural beauty.

Control and survey work will be implemented on the Niobrara, North Loup, Middle Loup and South Loup, and Platte River basins. The Weed Watch informational and educational publication and the new brochures will be distributed within the Panhandle Research Integration for Discovery Education (PRIDE), Sandhills Weed Management Area (SWMA), Middle Niobrara Weed Awareness Group (MNWAG), West Central

Weed Management Area (WCWMA) and Platte Valley Weed Management Area (PVWMA) geographical areas.

### **Panhandle Research Integration for Discovery Education**

Map, Monitor, Educate and Control with PRIDE (YEAR 2) (17/18-05)

Total Dollars Requested:	\$57,500.00	Total Dollars Funded:	\$53,762.50
		2% Reduction:	\$1,075.25

The Panhandle Research Integration for Discovery Education Weed Management Area (PRIDE WMA) has been actively completing successful projects since 1998. In addition to Dawes, Sheridan, Sioux and Box Butte Counties, our partners include private landowners, the Upper Niobrara White Natural Resources District, US Forest Service, Nebraska Game and Parks Commission, Nebraska Department of Agriculture, National Park Service, Chadron State College and Sioux County Future Farmers of America. We continue to fulfill our mission statement of serving as a cornerstone, building and maintaining partnerships between many cooperators working on invasive weed management and education. This project, "Map, Monitor, Educate and Control with PRIDE Year 2 will continue on the ground noxious and invasive weed control, yellow flag iris research and education through *The Weed Watch* publication. PRIDE will continue yellow flag iris control efforts on the Niobrara River in Sioux and Box Butte counties. Utilizing grant funds, yellow flag iris infestations on both AFBNM and private landowners downstream will be treated. In June 2017, common mullein seed eating weevils were released on sites in Dawes, Sheridan, and Sioux counties in an effort to establish insectaries in each county. PRIDE would like to continue with releases of insects in 2018. Once these populations are considered sustainable, insects can then be relocated to other common mullein infestations. Three other invasive species-absinth wormwood, black henbane and Dalmatian toadflax will be treated using Early Detection and Rapid Response methods in areas they have been identified. Mapping and control of these species will help to prevent large problems in the future. Education of landowners regarding these species is of utmost importance.

### **Lower Platte Weed Management Area**

Lower Platte Sandbar Restoration and Tributary Project (17/18-06)

Total Dollars Requested:	\$70,000.00	Total Dollars Funded:	\$65,450.00
		2% Reduction:	\$1,309.00

The Lower Platte Weed Management Area (LPWMA) is planning to survey four tributaries in Lancaster County in mid-July. The LPWMA is seeking funds from the Nebraska Department of Agriculture (NDA) for 50 % landowner cost share of control of phragmites on these tributaries. All acres of phragmites within the flowing waters of the LPWMA will require landowner cost share. Funds from NDA will be matched with dollars from funding provided by Natural Resource Districts. As part of the annual

helicopter project, the LPWMA has identified 75 acres of new growth vegetated (woody vegetation) to be controlled by helicopter application on sandbars. The WMA is seeking NDA funds for sandbar restoration and control of these invasive woody plants. County Weed Control Superintendents will be performing airboat surveys and herbicide applications of invasive plants along the Platte River sandbars and banks from mid-August through killing frost. The LPWMA is requesting funding for these surveys and applications. This survey and control work done by the County Weed Control Authorities has been proven to keep down helicopter project costs which lower costs for all LPWMA partners: landowners, Natural Resource Districts, and County Weed Control Authorities themselves.

NDA funds were utilized to remove 60 acres of invasive Indigo bush in Douglas County in late winter 2016 into early spring of 2017. The contractor removed the plant by mowing and made follow up cut stump treatments on the mowed areas. The LPWMA anticipates 10% regrowth of new seedlings within the Indigo bush removal channel. The LPWMA is requesting funding for follow up basal bark treatments of new seedlings and mechanical removal of larger areas with more cut stump treatments to continue the sandbar restoration on this channel of the river.

## **2018/19 Riparian Vegetation Management Grant Summary**

### **Twin Valley Weed Management Area**

Eastern Republican & Little Blue Riparian Improvement Project (18/19-01)

Total Dollars Requested: \$100,000.00      Total Dollars Funded: \$90,000.00

The highly successful Eastern Republican & Little Blue Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican & Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican & Little Blue Rivers to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, to improve riparian habitat including re-planting beneficial species, as well as including pollinators, and to increase public awareness of the best practices that can be used to properly manage riparian lands.

### **Nebraska Weed Management Area Coalition**

Rapid Response to Early Detection of Invasive Plant Species and Education Outreach  
(18/19-02)

Total Dollars Requested: \$476,967.00      Total Dollars Funded: \$303,400.50

The Nebraska Weed Management Area Coalition (NEWMAC) is made up of 10 Weed Management Areas (WMA's) throughout Nebraska that bring together landowners, agencies and organizations in a geographical area to coordinate efforts and expertise against newly recognized non-native invasive weed species. Due to successful statewide noxious weed control projects, weed superintendents have seen an overall decline in the number of infested acres, from 1.5 million acres in 2005 to 895,000 acres in 2017. This decline has been seen even with the addition of five new species to the State noxious weed list. NEWMAC recognizes the need to ensure these noxious species continue to be treated. However, we also recognize the need for continued surveying and control of new invasive species that have the potential to become widespread problems. NEWMAC is requesting funding to 1) treat invasive species that were documented in 2017 by surveys and monitoring; 2) continue supporting the Weed Watch publication and create new invasive species brochures; 3) implement biocontrol along the Niobrara River in Rock and Keya Paha counties for leafy spurge and purple loosestrife; and insects in Dawes, Sheridan, and Sioux counties for common mullein; and 4) survey for plants designated by the Nebraska Invasive Species Council as Watch List species. All these objectives assist in enhancing Nebraska's native biodiversity and natural beauty.

WMA's participating in this grant project are Panhandle Research Integration for Discovery Education (PRIDE), Sandhills Weed Management Area (SWMA), Middle Niobrara Weed Awareness Group (MNWAG), West Central Weed Management Area (WCWMA), Five Rivers WMA, and Platte Valley Weed Management Area (PVWMA). Control and survey work will be implemented in the Niobrara, North Loup, Middle Loup, South Loup, and Platte River basins. The Weed Watch publication is distributed in 7 of Nebraska's WMA's and the Watch List brochures will benefit WMA's and County Weed Superintendents statewide.

### **Lower Platte Weed Management Area**

LPWMA Aerial and Ground Follow Up Watershed Protection Plan (18/19-03)

Total Dollars Requested: \$69,555.00                      Total Dollars Funded: \$62,599.50

The Lower Platte Weed Management Area (LPWMA) controlled over seven hundred fifty acres of Noxious and invasive plants within the project area in the fall of 2017 through aerial application. The LPWMA will conduct July follow up surveys using programming dollars from Natural Resource Districts to map new infestations and follow up aerial applications.

The LPWMA is requesting funding to complete aerial application on Lancaster County tributaries, the Salt Creek and Oak Creek, in 2018. The LPWMA will utilize a special use "congested area" permit to conduct aerial application in and around the city Lincoln, NE. This application will control acres of phragmites on these tributaries that went untreated in 2017. These areas are still relatively small; the aerial application will be an effective

tool this season and these acres will be cost-shared with Lancaster County landowners on these tributaries.

The LPWMA conducts its projects on both a landscape level and on a watershed level. County Weed Control Superintendents are actively involved in surveying riparian areas. At the upstream edge of the Weed Management Area, the Platte County Superintendent has identified new areas of phragmites and invasive plants that will be priorities to control this season as part of the annual aerial application. The LPWMA is seeking funding to control these riparian areas within the Platte River channel in Platte County. The LPWMA is also requesting funding to survey and control small areas by airboat ground applications within the Platte River channel along the one hundred and twenty miles of river within the WMA.

The LPWMA is requesting reimbursement of administrative costs through this grant. The LPWMA now carries an insurance policy and will incur administrative costs. These costs are outlined in the budget section of the application and there is an attachment for the insurance policy.

## **2019/20**

### **Riparian Vegetation Management Grant Summary**

#### **Middle Niobrara Weed Awareness Group**

Rapid Response to Early Detection of Invasive Plant Species and Educational Outreach  
(19/20-01)

Total Dollars Requested: \$55,000.00                      Total Dollars Funded: \$0.00

MNWAG was formed in 2001 as a result of various agencies realizing on overlapping of weed management activities along the Niobrara River corridor. MNWAG assists local landowners to become aware of the potential threat of noxious and invasive weeds along the Niobrara River corridor. The Niobrara National Scenic River stretches one mile on each side of the river for 76 miles from the Borman Bridge near Valentine to the east end of the Rock and Keya Paha County line. MNWAG is seeking funding to continue cost share spraying with the landowners. MNWAG is offering chemical at a reduced price to landowners to be able to spray on noxious and invasive weeds along the Niobrara River corridor. This has been an extremely beneficial tool to the landowners to be able to reduce their levels of noxious weeds. MNWAG is also seeking funding for the utilization of a helicopter and air boat to survey and spray noxious weeds in the areas that are hard to access. This is done at no cost to the landowners. We utilize the helicopter where necessary, but we have been given permission from the National Park Service to implement an air boat on areas of the river that the helicopter is a distraction to tubers and endangered species.

#### **Southwest Weed Management**

Western Republican River Basin Riparian Habitat Improvement Project  
(19/20-02)

Total Dollars Requested: \$80,000.00      Total Dollars Funded: \$76,141.60

The Western Republican River Basin Riparian Habitat Improvement Project goals are to eradicate invasive species, remove undesirable vegetation from the river and creek channels and improve water quality and native habitat along riparian corridors. These efforts will include the Republican River, Medicine Creek, Frenchman, and other tributaries in the western Republican River basin. Best management practices and landowner input will be evaluated to determine methods of control and eradication within the seven-county area comprising SWWM. These efforts will result in improved riparian zones, restored natural habitat, and improve water quality and flow assisting in Nebraska maintaining compliance with the Republican River Compact. Public meetings, development of a website and brochures will increase public awareness providing additional benefits.

**Twin Valley Weed Management Area**

Eastern Republican & Little Blue Riparian Improvement Project (19/20-03)

Total Dollars Requested: \$100,000.00      Total Dollars Funded: \$95,177.00

The highly successful Eastern Republican & Little Blue Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican & Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican & Little Blue Rivers to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, and to increase public awareness of the best practices that can be used to properly manage riparian lands.

**Platte Valley Weed Management Area**

Invasive Plant Species Control along the Central Platte River (19/20-04)

Total Dollars Requested: \$222,000.00      Total Dollars Funded: \$211,292.94

During the draught years of 2000-2006 invasive species infested and formed thick monocultures within the Platte River of central Nebraska reducing flow conveyance, reducing wildlife habitat, increasing water consumption by invasive vegetation, and reducing the ability of irrigators to divert Platte River flows. With the thousands of acres of infestation, lack of defined ownership and herbicide restrictions/need of specialized

vehicles for application landowners cannot effectively control the invasive vegetation. Platte Valley and West Central WMA's have collaborated on this issue since 2008 and have shown great steps but yearly maintenance and expansion of control on remaining acres is needed along with implementing cost share program to private landowners. Along with direct control by WMA a cost-share program is being implemented to assist landowners to control invasive species within riparian zones. WMA's will implement and Early Detection and Rapid Response approach on new invasive plant species being detected along the Platte River.

### **Nebraska Weed Management Area Coalition**

Outreach and Educational Materials for Invasive Riparian Species Control (19/20-05)

Total Dollars Requested: \$37,000.00                      Total Dollars Funded: \$0.00

The Nebraska Weed Management Area Coalition (NEWMAC) is made up of several Weed Management Area groups. Our goal is sharing of resources, funds, and expertise to bring together landowners, county, state and federal agencies in noxious and invasive weed control issues. While noxious weeds are not always a very popular topic, the control of noxious weeds is a very important topic. As per the Nebraska Noxious Weed Act, controlling noxious weeds is the duty of Nebraska landowners and homeowners. As important as the control is, the education and awareness of noxious and invasive weed information is vital. Since 2008, The Weed Watch has been published twice a year as a collaborative effort to focus on noxious and invasive plant identification, information, and proper control methods. This 12-page color publication will be delivered to over 100,000 households in 57 Nebraska counties. The paper is published at the Kearney Hub in Kearney, and distributed to local newspapers, or picked up and distributed by the 8 Weed Management Areas that work together. In the past two years, NEWMAC has published 5 invasive weed brochures that focused on absinth wormwood, houndstongue, common and cutleaf teasel, sulphur cinquefoil and common mullein. These brochures have been distributed statewide to weed superintendents, NRD offices, county, and state entities, etc., to help with identification and control efforts. As part of the 2019-2020 grant request, we would like to create two more brochures, highlighting two more species of concern.

Members of NEWMAC that will be part of this grant project are Panhandle Research Integration for Discovery Education (PRIDE), Sandhills Weed Management Area (SWMA), Middle Niobrara Weed Awareness Group (MNWAG), West Central Weed Management Area (WCWMA), and Platte Valley Weed Management Area (PVWMA).

### **Upper Niobrara White Natural Resources District**

Vegetation Management on the Upper Niobrara River (19/20-06)

Total Dollars Requested: \$30,000.00                      Total Dollars Funded: \$28,558.19

The Upper Niobrara River supplies surface water for several individual appropriators and the Mirage Flats Irrigation District. As well, several wells along the river rely on the

alluvial aquifer. Average stream flows at the upper end of the reach are approximately 4 cubic feet per (cfs) second and increase to approximately 24 cfs above Box Butte Reservoir. The Nebraska Department of Natural Resources has designated the Upper Niobrara River as fully appropriated. Landowners have expressed concern over the monoculture of cattails that have infested the river in several areas. The cattails consume several acre feet of water annually and completely encompass the river channel causing flow obstructions. The purpose of this project is to work with willing landowners to manage the cattails where consumptive use is reduced, and a free-flowing river channel is returned. Along with the cattails, any other noxious weeds, such as the yellow flag iris or purple loosestrife that are detected will be treated and the appropriate weed management authority notified. The funds will be utilized to purchase aquatic labeled herbicide and work with a local contractor to treat the targeted areas. The project timeline is one year.

### **Lower Platte Weed Management Area**

LPWMA Post-Flood Monitoring and Control Project (19/20-07)

Total Dollars Requested: \$47,102.00

Total Dollars Funded: \$44,830.27

The priority this year for the LPWMA is to adequately survey and control these new locations of phragmites and other inclusive invasive vegetation to prevent the establishment of permanent sandbars and water loss to these species. The LPWMA is seeking funding to complete airboat survey and control work in the Platte River as well as funds to survey the Elkhorn River and tributaries in Dodge, Sarpy, and Douglas Counties. This requested funding is only a portion of the project as the Weed Management Area has already completed a two-day helicopter invasive plant survey of the lower Platte River as well as a survey of tributaries in Lancaster County. Landowners and the Natural Resource Districts will again cost-share application work in the main channel of the Platte River. The LPWMA is seeking funding for application work on Platte River tributaries only. The LPWMA requests funding for its annual insurance policies; the WMA will provide all other administrative fees including dues income for hosting monthly meetings and maintaining equipment. Additionally, the LPWMA plans to sponsor one local Future Farmers of America (FFA) chapter to survey one stretch of the Lower Platte River this season. Funds will go directly to the chapter for survey & monitoring equipment and transportation to and from the site. Findings will be distributed by the FFA chapter and by the Weed Management Area once the project is completed.

**2020/21**

## **Riparian Vegetation Management Grant Summary 1<sup>st</sup> Round**

**Twin Valley Weed Management Area**

Eastern Republican & Little Blue Riparian Improvement Project (20/21-01)

Total Dollars Requested: \$100,000.00      Total Dollars Funded: \$100,000.00

The highly successful Eastern Republican & Little Blue Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican & Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican & Little Blue Rivers to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, and to increase public awareness of the best practices that can be used to properly manage riparian lands.

### **High Plains Weed Management Association**

North Platte River Invasive Species Project (Phase 3) (20/21-02)

Total Dollars Requested: \$55,000.00      Total Dollars Funded: \$0.00

High Plains Weed Management Association, through the oversight of Panhandle R C & D in the last four years has removed more than 4,000 acres of Russian Olive, Phragmites and Salt Cedar in watersheds along 123 miles along the North Platte River and 9 miles along the South Platte River. The program has been a partnership between High Plains Weed Management, the NRCS and the USDA. The program has also worked alongside the weed superintendents of seven counties, Sioux, Scotts Bluff, Cheyenne, Kimball, Morrill, Deuel, and Garden. The funding received for this program was designated to only remove the three weeds mentioned above. In the previous funding that has been utilized to remove the weeds mentioned above, there was not funding included to remove common mullein. An award that was received in 2019 from the Cabela's/Bass Pro Shops Outdoor Fund to treat common mullein. The program that was set up because of this funding has been very successful and well received by landowners. This program was set up to allow \$1,000 for each landowner to assist with the cost of removal of common mullein. At the submission of this application, there have been a total of 11 applications accepted for removal. There are another 4 pending applications. The landowners who have had their application accepted and those with pending application feel that the \$1,000 will be used and then some. Because of this success this funding will run out and further funding will be needed to continue this successful program to remove the common mullein which been declared noxious weeds in these counties.

### **Southwest Weed Management**

Eastern Republican River Basin Riparian Habitat Improvement Project (20/21-03)

Total Dollars Requested: \$70,000.00      Total Dollars Funded: \$70,000.00

The Western Republican River Basin Riparian Habitat Improvement Project goals are to eradicate invasive species, remove undesirable vegetation from the river and creek channels and improve water quality and native habitat along riparian corridors. These efforts will include the Republican River, Medicine Creek, Frenchman, and other tributaries in the western Republican River basin. Best management practices and landowner input will be evaluated to determine methods of control and eradication within the seven-county area comprising SWWM. Aerial spraying of the Republican River and Medicine Creek for phragmites and mechanical removal of cedar and Russian olive trees will be the focus resulting in improved riparian zone habitat, restored natural habitat and improve water quality and flow assisting in Nebraska maintaining compliance with the Republican River Compact. Spraying of Medicine Creek to control phragmites will be completed as a joint effort between Southwest Weed Management and Twin Valley Weed Management Area. We will hold public meetings, advertise our website, and develop brochures to increase public awareness.

### **Platte Valley Weed Management Area**

Invasive Plant Species Control along the Central Platte River (20/21-04)

Total Dollars Requested: \$207,000.00                      Total Dollars Funded:                      \$207,000.00

During the draught years of 2000-2006 invasive species infested and formed thick monocultures within the Platte River of central Nebraska reducing flow conveyance, reducing wildlife habitat, increasing water consumption by invasive vegetation, and reducing the ability of irrigators to divert Platte River flows. With the thousands of acres of infestation, lack of defined ownership and herbicide restrictions/need of specialized vehicles for application landowners cannot effectively control the invasive vegetation. Platte Valley and partners have collaborated on this issue since 2008 and have shown great steps but yearly maintenance and expansion of control on remaining acres is needed along with implementing cost share program to private landowners. Along with direct control by WMA a cost-share program is being implemented to assist landowners to control invasive species within riparian zones. WMA's will implement and Early Detection and Rapid Response approach on new invasive plant species being detected along the Platte River.

### **Lower Platte Weed Management Area**

Flowing Tributary Management Project (20/21-05)

Total Dollars Requested: \$43,542.00                      Total Dollars Funded:                      \$0.00

The priority this year for the LPWMA is to incorporate comprehensive control of Noxious and invasive species on the Elkhorn River tributary, Oak and Salt Creek tributary to reduce the establishment of this species and to prevent the establishment of permanent sandbars downstream. The LPWMA is seeking funding to complete airboat survey and

control work in the Platte River as well as funds to survey the Holmes Creek and Haines Branch of Salt Creek in Lancaster County. This requested funding is only a portion of the project as the Weed Management Area will complete a helicopter invasive plant survey of the lower Platte River main channel in July 2020 as well as a survey of tributaries in Lancaster County. Landowners and the Natural Resource Districts will again cost-share application work in the main channel of the Platte River. The LPWMA is seeking funding for application work on Platte River tributaries only. The LPWMA requests funding for its annual insurance policies; the WMA will provide all other administrative fees including dues income for hosting monthly meetings and maintaining equipment. Additionally, the LPWMA plans to replace and update informational kiosk signs at public riparian locations within the LPWMA. NDA funds will provide funding for the printing of these materials for the kiosks.

### **Nebraska Weed Management Area Coalition**

Working Together for Education and Control of Aquatic Invasive Vegetation (20/21-06)

Total Dollars Requested: \$113,800.00      Total Dollars Funded: \$113,800.00

The Nebraska Weed Management Area Coalition (NEWMAC) was formed to combine efforts, expertise, and projects within several weed management areas across the state. Like all areas of life...things change in the weed world. Infestations of noxious or invasive weeds invade in new areas, long time weed superintendents retire, and new weed superintendents are eager to begin new challenges. Applying for and completing grant projects requires having mentors, and experienced grant writers. For that reason, we are combining projects within several WMA's for this grant.

Riparian invasive weeds will be addressed by Panhandle Research Integration for Discovery Education (PRIDE), Sandhills Weed Management Area (SWMA) and Middle Niobrara Weed Awareness Group (MNWAG). PRIDE will control non-native phragmites and invasive oxeye daisy on Pine Creek, which ends up in the Niobrara River in Sheridan County. SWMA will address yellow flag iris, non-native phragmites and purple loosestrife on the Loup and Cedar Rivers in Nance County. SWMA will also complete a yellow flag iris project on the North Loup River in Cherry County. SWMA will also complete a Russian Olive Removal project in Keya Paha County. Two purple loosestrife projects will be completed by MNWAG in Brown and Rock Counties. Many of these projects are directly related to the high rate of rain and flooding during 2019 across Nebraska. Several smaller projects, but all needed to prevent the spread of aquatic invasive weeds.

NEWMAC also collaborates to produce The Weed Watch. This 12-page full color brochure is totally dedicated to noxious and invasive weed education. Published Spring and Fall of each year, it is delivered to nearly 100,000 households in 48 Nebraska Counties. In addition to many "on the ground" weed control projects, NEWMAC would like to add The Weed Watch as a very valuable outreach and educational component of our grant.

**2020/21**

## **Riparian Vegetation Management Grant Summary**

## 2<sup>nd</sup> Round

### Twin Valley Weed Management Area

Lower Republican River Maintenance & Cleanout Project (20/21-07)

Total Dollars Requested: \$100,000.00      Total Dollars Funded: \$100,000.00

The highly successful Eastern Republican Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican River and the tributaries within 4 of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican River to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, to improve riparian habitat including re-planting beneficial species, and to increase public awareness of the best practices that can be used to properly manage riparian lands and maintain a healthy river channel flow.

### Middle Niobrara Weed Awareness Group (MNWAG)

Middle Niobrara Invasive Weed Control Project (20/21-08)

Total Dollars Requested: \$73,000.00      Total Dollars Funded: \$46,523.00

The Middle Niobrara Weed Awareness Group (MNWAG) includes Brown, Cherry, Keya Paha and Rock Counties in north central Nebraska. Many miles of the Niobrara River run through these counties. 76 miles of the Niobrara in this area are listed as a National Treasure, deemed by the National Park Service as the “Scenic Niobrara River” with untampered waters, and a unique combination of five different ecotypes.

Since the early 2000’s, a non-native and very invasive weed – purple loosestrife has made itself known along the riverbanks of the Niobrara in these same counties. Left untreated the purple loosestrife outcompetes native vegetation, forms a monoculture, and makes access to the river very difficult. MNWAG has worked with landowners for many years to get the purple loosestrife controlled, however many areas are just not accessible with the equipment farmers and ranchers have.

In 2019 record rainfall was received in Nebraska, which resulted in some major flooding in many parts of Nebraska. Much of the Niobrara in Brown and Keya Paha Counties was flooded, which meant the purple loosestrife was not sprayed during 2019. When this area was inspected recently the purple loosestrife infestations had increased dramatically.

Another invasive Watch List Weed, yellow flag iris, is on the move across Nebraska as well. Seeking out new small infestations and getting them controlled is another priority to prevent another riparian invasion.

When MNWAG learned of additional funding for riparian projects, we knew it was a perfect opportunity to seek assistance. Our group held a lengthy meeting to collaborate projects, contact contractors, and created a plan to make a big difference on the purple loosestrife infestation and in the process, preserve the beauty of the Scenic Niobrara River in our weed management area.

### **Lower Platte Weed Management Area**

Lower Platte River & Tributaries Water Conveyance & Habitat Improvement Project  
(20/21-09)

Total Dollars Requested: \$68,677.00                      Total Dollars Funded: \$68,677.00

The Lower Platte River and Tributaries Water Conveyance & Habitat Improvement Project is designed to improve water conveyance & wildlife habitat throughout the Lower Platte River and its tributaries by treating invasive species along the flowing rivers and streams. Implementation of the project is through a coordinated effort between the LPWMA and its partners by surveying and mapping the project area with gps point data and providing the gathered information to both the helicopter and airboat contractors for treatment. By using gps data point information we are extremely efficient and effective in our approach to control the unwanted vegetation. Applications will be made by helicopter, airboat, and Unmanned Aerial Vehicles (UAV's) to maximize our control cost. The LPWMA has excellent contributing partners including private landowners, County Weed Control personnel, Lower Platte South, Lower Platte North and Papio–Missouri NRD's along with the Nebraska Game & Parks to name a few. Future maintenance and administration support of the project will be achieved through financial commitments from our NRD partners and private landowner 50% cost share.

NDA/Riparian Vegetation Management funding will be used as a dollar-for-dollar cost share match with private landowners as well as other local matching funds.

Everyone along the flowing rivers and streams will greatly benefit from the treatment of invasive vegetation by increased water conveyance, water available for human consumption, flood control improvement, protecting infrastructure, wildlife habitat improvement and public use and enjoyment.

Protecting the Waters of the State is the top priority of the LPWMA.

### **Platte Valley Weed Management Area**

Invasive Plant Species Control along the Central Platte River (20/21-10)

Total Dollars Requested: \$15,750.00                      Total Dollars Funded: \$0.00

Within Nebraska's river corridors invasive species such as salt cedar, eastern red cedar, reed canarygrass, Russian olive, phragmites and purple loosestrife are present

and have out-competed native vegetation. These species can take over low-lying areas along riverbanks, wetlands, meadows, side channels, sloughs, sandbars, and adjacent uplands. These plants are aggressive invaders and rapidly replace native plant communities thus reducing biodiversity, wildlife habitat and are major threats to the river ecosystems. Invasive plant species within riverine corridors translocate large amounts of water which reduces available water for river and stream function.

Historically invasive vegetation has been allowed to grow until deemed unacceptable by landowners and partners. Once invasive vegetation species reach this high level of infestations there is a reduction in native plant and animal diversity, reduction in beneficial native grasses and forbs that wildlife depend on and high value grasses for cattle grazing is reduced. By increasing focus on new invasive species that are still in small infestations direct control can be implemented and eradication can be achieved. This method is considered 'early detection and rapid response'.

Initial grant objectives are 1) perform aerial surveys on the Platte and Loup rivers (and tributaries) to implement early detection and rapid response on invasive vegetation and 2) Increase landowner and partner awareness on invasive vegetation. By achieving these objectives common goals of 1) reducing water consumption by invasive vegetation, 2) increasing flow conveyance, 3) increasing wildlife habitat and 4) increasing available forage for grazing can be achieved.

## **2021/22 Riparian Vegetation Management Grant Summary**

### **Twin Valley Weed Management Area**

Eastern Republican & Little Blue Riparian Improvement Project (21/22-01)

Total Dollars Requested: \$125,000.00                      Total Dollars Funded: \$125,000.00

The highly successful Eastern Republican & Little Blue Riparian Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican & Little Blue Rivers and their tributaries within six of the Twin Valley Weed Management Area (TVWMA) counties. Control efforts are conducted in a holistic manner, utilizing a full range of mechanical, biological, and chemical tools. TVWMA has undertaken this project over recent years to improve stream flow along the Republican & Little Blue Rivers to help enable Nebraska to meet its water delivery obligations to Kansas, to restore and maintain into the future a healthy river system and prevent wasteful degradation of water resources, and to increase public awareness of the best practices that can be used to properly manage riparian lands.

### **Southwest Weed Management**

Western Republican River Basin Riparian Habitat Improvement Project (21/22-02)

Total Dollars Requested: \$22,000.00

Total Dollars Funded: \$22,000.00

The Western Republican River Basin Riparian Habitat Project goals are to eradicate invasive species, remove undesirable vegetation from the river and creek channels and improve water quality and native habitat along riparian corridors. These efforts will include the Republican River, Medicine Creek, Frenchman, and other tributaries in the western Republican River basin. Best management practices and landowner input will be evaluated to determine methods of control and eradication within the seven-county area comprising SWWM. Aerial spraying of the Republican River and Red Willow Creek for phragmites will be the focus to improve riparian zone habitat, water quality and increase flow, assisting Nebraska to maintain compliance with the Republican River Compact. We will hold public meetings, promote education on our website, and develop brochures to increase public awareness of invasive species management.

### **Lower Platte Weed Management Area**

Lower Platte River & Tributaries - Water Conveyance & Habitat Improvement Project  
(21/22-03)

Total Dollars Requested: \$48,584.00

Total Dollars Funded: \$48,584.00

The Lower Platte River & Tributaries Water Conveyance & Habitat Improvement Project will benefit every Nebraskan by improving water conveyance & wildlife habitat throughout the Lower Platte River and its tributaries. Implementation of the project is through a coordinated effort between the LPWMA and its partners by surveying and mapping the project area with GPS point data and providing the gathered information to the contractors for treatment. By using GPS data point information, we are extremely efficient and effective in our approach to control the unwanted vegetation. Treatment of invasive species along the flowing rivers and streams will be made by helicopter, airboat, and Unmanned Aerial Vehicles (UAV's) to maximize our control cost.

The LPWMA has excellent contributing partners including private landowners, County Weed Control personnel, Lower Platte South NRD, Lower Platte North NRD and Papio-Missouri NRD along with Nebraska Game & Parks to name a few. Future maintenance and administration support of the project will be achieved through financial commitments from our NRD partners and private landowner cost share.

NDA/Riparian Vegetation Management funding will be matched over **180%** with our committed partners.

**Protecting the "Waters of the State"** Every Nebraskan, especially those along the flowing rivers and streams will greatly benefit from the treatment of invasive vegetation. Increasing water conveyance, protecting livelihoods, infrastructure, wildlife habitat, public health and water for human consumption are just a few of the goals of the LPWMA. Water is the State's most valuable resource and protecting this resource will remain our top priority.

## **Platte Valley Weed Management Area**

Invasive Plant Species Control along the Central Platte River (21/22-04)

Total Dollars Requested: \$242,000.00      Total Dollars Funded: \$242,000.00

During the drought years of 2000-2006 invasive species infested and formed thick monocultures within the Platte River of central Nebraska reducing flow conveyance, reducing wildlife habitat, increasing water consumption by invasive vegetation, and reducing the ability of irrigators to divert Platte River flows. The choking of river channels by invasive vegetation is causing low land flooding throughout much of the project area that requires a system wide approach for control while targeting specific areas. With the thousands of acres of infestation, lack of defined ownership and herbicide restrictions/need of specialized vehicles for application landowners cannot effectively control the invasive vegetation. Platte Valley and partners have collaborated on this issue since 2008 and have shown great steps but yearly maintenance and expansion of control on remaining acres is needed along with implementing a cost share program to private landowners. In addition to direct control by WMA a cost-share program is being implemented to assist landowners in controlling invasive species within riparian zones. WMA will also implement an Early Detection and Rapid Response approach on new invasive plant species that are detected along the Platte River.

## **Nebraska Weed Management Area Coalition (NEWMAC)**

NEWMAC Riparian Vegetation Control and Education Project (21/22-05)

Total Dollars Requested: \$166,500.00      Total Dollars Funded: \$166,500.00

The Nebraska Weed Management Coalition (NEWMAC) brings Weed Management Area groups together to work on regional projects, share information, resources and expertise. Most of the County Weed Superintendents hoping to work on projects through this grant have less than three years' experience. While they are eager to incorporate projects into their county weed programs, they appreciate the experience and guidance of other county superintendents with experience in both project and grant management.

The heavy rains and flooding of 2019 proved to be "super spreaders" of noxious and invasive weeds up and down the rivers and streams in central Nebraska. This project would be working on purple loosestrife, phragmites and yellow flag iris in 8 counties, with superintendents from Sandhills Weed Management Area (SWMA), Middle Niobrara Weed Management Group (MNWAG), and Panhandle Research Integration for Discovery Education (PRIDE) collaborating within NEWMAC. Waterways would include the unique biodiversity of the Niobrara River Scenic Corridor, the Middle and South Loup Rivers, the Elkhorn River, and the Calamus River, in addition to many Creeks. Two educational components will be completed as well. The Sandhills WMA will host the Nebraska Leafy Spurge Task Force Tour and Conference in Broken Bow on August

31 and September 1. Between the 2019 flooding and 2020 Covid 19, the conference has not been held since 2018. NEWMAC will also publish the Fall 2021 and Spring 2022 editions of the Weed Watch if funded. This 12-page color publication is totally geared towards invasive species; and goes to more than 110,000 households in 48 Nebraska counties.

In an effort to control many infestations of invasive weeds along riparian corridors, County Weed Superintendents involved in the projects within this grant application are all willing to add additional work to their regular duties. NEWMAC appreciates the opportunity to apply for this grant.

### **Five Rivers Resource, Conservation & Development (RC&D)**

#### Five Rivers Water Flow & Habitat Improvement Program (21/22-06)

Total Dollars Requested: \$47,095.00

Total Dollars Funded: \$47,095.00

The Five Rivers Water Flow & Habitat Improvement Project is designed to improve water flow & wildlife habitat throughout the five main river systems and its tributaries in the Five Rivers WMA area by treating invasive species along the flowing rivers and streams. Some of these tributaries include Turkey Creek, Weeping Water Creek, Swan Creek, Rock Creek, Indian Creek, Honey Creek, Longs Creek, and Bear Creek. The rivers include the Missouri River, Big Blue River, Little Blue River, Nemaha River, and Little Nemaha River. It is critical to control and contain the invasive species as soon as possible before it becomes more complex and expensive. It is extremely easy for the river or stream current, boats, or other equipment to pick up hitchhikers and spread the species into all connecting waterways.

Implementation of the project is through a coordinated effort between the Five Rivers WMA and its partners by surveying and mapping the project area with GPS point data and providing the gathered information to both the helicopter and airboat contractors for treatment. Utilizing GPS data point information to survey, map and then treat has proven to be an extremely efficient and effective method to eradicate unwanted species from effecting our waterways and wildlife habitat. Additionally, utilizing different methods of application, including helicopters, airboats, and Unmanned Aerial Vehicles (UAV's) ensure precision and effectiveness as well as help with keeping control cost to a minimum.

The Five Rivers WMA has been fortunate to secure many contributing partners, including private landowners, County Weed Superintendents, the Nemaha NRD, the Lower Big Blue NRD, Nebraska Game & Parks, Farm Service Agency, Five Rivers RC&D, and many other entities. The use of multiple tools and committed partners significantly aids in the success of this project. Future maintenance and administration support of the project will be achieved through partnerships with our RC&D & NRD partners and county weed control authorities.

The treatment of invasive species along our waterways greatly effects our ecosystem. Identifying and eliminating harmful species will ensure increased water flow, flood control, wildlife habitat improvement, and water consumption in general.

**2022/23**  
**Riparian Vegetation Management Grant Summary**

**Twin Valley Weed Management Area**  
Eastern Republican/Little Blue Watershed Improvement Project  
(22/23-01)

Total Dollars Requested: \$482,500.00      Total Dollars Funded: \$482,500.00

The highly successful Eastern Republican/Little Blue Watershed Improvement Project continues ongoing efforts to eradicate invasive species, control vegetation in stream channels, and improve riparian habitat along the Republican and Little Blue Rivers and their tributaries within our nine counties. In recent years, TVWMA focused solely on the riparian area, this year's grant will include the entire watershed area by the requests of landowners and our partners. TVWMA recognizes that we must make a larger effort to control trees and vegetation growing within our counties. Control efforts for this project will be conducted in a holistic manner, utilizing mechanical, biological, and chemical tools. This program will continue to build upon previous years efforts. TVWMA has undertaken this project to improve stream flow along the Republican and Little Blue Rivers to assist Nebraska in meeting its water delivery obligations to Kansas. By focusing on the entire watershed area, restoration and maintenance of healthy river systems will prevent wasteful degradation of water resources, improve riparian habitat, and increase public awareness of the best practices that can be used to properly manage lands within the watershed.

**Lower Platte Weed Management Area**  
Lower Platte River & Tributaries - Water Conveyance & Habitat Improvement Project  
(22/23-02)

Total Dollars Requested: \$397,343.00      Total Dollars Funded: \$397,343.00

The Lower Platte River & Tributaries Water Conveyance & Habitat Improvement Project will benefit every Nebraskan by improving water conveyance & wildlife habitat throughout the Lower Platte River and its tributaries. Implementation of the project is through a coordinated effort between the LPWMA and its partners by surveying and mapping the project area with GPS point data and providing the gathered information to the contractors for treatment. By using GPS data point information, we are extremely efficient and effective in our approach to control the unwanted vegetation. Treatment of invasive species along the flowing rivers and streams will be made by helicopter, airboat, and Unmanned Aerial Vehicles (UAV's) to maximize our control cost. The LPWMA has excellent contributing partners including private landowners, County Weed Control personnel, Lower Platte South NRD, Lower Platte North NRD and Papio-Missouri NRD along with Nebraska Game & Parks to name a few. Future maintenance and administration support of the project will be achieved through financial commitments from our NRD partners and private landowner cost share.

NDA/Riparian Vegetation Management funding will be matched over **180%** with our committed partners.

**Protecting the “Waters of the State”** Every Nebraskan, especially those along the flowing rivers and streams will greatly benefit from the treatment of invasive vegetation. Increasing water conveyance, protecting livelihoods, infrastructure, wildlife habitat, public health and water for human consumption are just a few of the goals of the LPWMA. Water is the State’s most valuable resource and protecting this resource will remain our top priority.

### **Platte Valley Weed Management Area**

Invasive Plant Species Control Along the Central Platte River (22/23-03)

Total Dollars Requested: \$590,000.00      Total Dollars Funded: \$590,000.00

During the drought years of 2000-2006 invasive species infested and formed thick monocultures within the Platte River of central Nebraska reducing flow conveyance, reducing wildlife habitat, increasing water consumption by invasive vegetation, and reducing the ability of irrigators to divert Platte River flows. The choking of river channels by invasive vegetation is causing low land flooding throughout much of the project area that requires a system wide approach for control while targeting specific areas. With the thousands of acres of infestation, lack of defined ownership and herbicide restrictions/need of specialized vehicles for application landowners cannot effectively control the invasive vegetation. Platte Valley and partners have collaborated on this issue since 2008 and have shown great steps but yearly maintenance and expansion of control on remaining acres is needed along with implementing a cost share program to private landowners. In addition to direct control by WMA a cost-share program is being implemented to assist landowners in controlling invasive species within riparian zones. WMA will also implement and Early Detection and Rapid Response approach on new invasive plant species that are detected along the Platte River. PVWMA will expand this work along tributaries in 2022.

### **Southwest Weed Management**

Western Republican River Riparian Habitat Improvement Project (22/23-04)

Total Dollars Requested: \$35,000.00      Total Dollars Funded: \$35,000.00

The Western Republican River Basin Riparian Habitat Project will initiate management actions to improve water quantity, quality and enhance water flows within the Republican River watershed in southwest Nebraska. These actions will have a positive impact on water resources for the length of the Republican River in Nebraska. Water is a critical resource for the environmental health of riparian ecosystem and community. Available water, native vegetation, and environmental communities are challenged and replaced by aggressive, water consumptive, non-native, invasive vegetation. Studies have documented the negative impacts of invasive and non-desirable vegetation

reducing available water from surface runoff, springs, and drainages. This program will continue to build upon previous years efforts. The focus areas will be within flood plains, according to NDA guidance in southwest Nebraska. These efforts will reduce water consumptive invasive species and increase water availability and native flows in the Republican River basin. This will also assist the State of Nebraska to maintain compliance requirements of the Republican River Compact. Landowners will be educated to see the value of controlling these species and implement management efforts into the future.

### **Five Rivers Resource, Conservation & Development (RC&D)**

Five Rivers Water Flow & Habitat Improvement Program (22/23-05)

Total Dollars Requested: \$89,001.50      Total Dollars Funded: \$89,001.50

The Five Rivers Water Flow & Habitat Improvement Project is designed to improve water flow & wildlife habitat throughout the Missouri River and its tributaries in the Five Rivers WMA area by treating invasive species along the flowing rivers and streams. It is critical to control and contain the invasive species as soon as possible before it becomes more complex and expensive. It is extremely easy for the river or stream current, boats, or other equipment to pick up hitchhikers and spread the species into all connecting waterways. Implementation of the project is through a coordinated effort between the Five Rivers WMA and its partners by surveying and mapping the project area with GPS point data and providing the gathered information to both the helicopter and airboat contractors for treatment. Utilizing GPS data point information to survey, map and then treat has proven to be an extremely efficient and effective method to eradicate unwanted species from effecting our waterways and wildlife habitat. Additionally, utilizing different methods of application, including helicopters, airboats, and Unmanned Aerial Vehicles (UAV's) ensure precision and effectiveness as well as help with keeping control cost to a minimum. This project will expand on a previous grant received from the Nebraska Department of Agriculture. It is imperative to continue surveying, control, and monitoring of the Missouri River banks and its tributaries to ensure that the Phragmites is eradicated. In addition to continued surveying and control work, the Five Rivers WMA will host an educational conference in a central location to educate local landowners and the general public on the importance of the control of Phragmites along the Missouri River banks and its tributaries.

### **Nebraska Weed Management Area Coalition (NEWMAC)**

NEWMAC Riparian Noxious and Invasive Vegetation Project (22/23-06)

Total Dollars Requested: \$1,101,950.00      Total Dollars Funded: \$1,101,950.00

The Nebraska Weed Management Area Coalition (NEWMAC) works to share information, resources, and expertise to complete various regional weed control projects. With many new weed control superintendents, the experience and guidance of experienced superintendents is very valuable in getting projects completed. NEWMAC

is excited that the 22-23 grant funds have expanded to include the flood plain area. This will allow for many more noxious and invasive weeds to be controlled. We have three WMAs involved in this application, with work planned in 18 counties, and covering over 1500 miles of rivers, streams, and tributaries (all explained in the narrative). The Leafy Spurge Working Task Force tour and conference will be one educational component. The Fall 2022 and Spring 2023 Weed Watch publications will be the second educational component. The 12-page full color publication will go to 116,000 households in 48 Nebraska counties and is a collaborative effort of seven WMA groups. Through survey, mapping and recommended control methods for noxious and invasive riparian vegetation, participants in this project will be working to protect the native landscape, and improve habitat for wildlife and livestock, as well as recreational opportunities. The removal of invasive weeds and trees on sandbar/islands and growing in or near the water will help to improve water flow. UTV, airboat, Argo, airplane, and helicopter spraying, as well as cutting invasive trees will be used in the control of many infestations of noxious and invasive vegetation. The diverse landscape requires different application methods in different areas. County Weed Superintendents involved in this grant project are willing to add additional work to their regular duties to get the work done. NEWMAC appreciates the opportunity to apply for this grant, and once again prove that “working together works.”

### **Summary**

The increase in funding for this fiscal year yielded some innovative ideas and significant work done in riparian areas. While much of the funding goes to direct control work in the flood plain, some of the grant money funded research to make identification and eradication of phragmites easier. It will be exciting to see what impact this new technology will have on vegetation management. There has been an increase in the usage of drones to manage vegetation and it is expected that this trend will continue. They are particularly useful in hard-to-reach areas such as around bridges and under tree canopies.

The Task Force applauds the projects for work they are accomplishing and the use of match funds and partners to protect Nebraska’s natural resources. This volume of work could never be achieved without the funding and support provided by the Legislature. The Task Force is hopeful that the Legislature will continue to see the value in appropriating funds for this grant program.