

**Platte River Riparian Vegetative Management Plan  
for  
Papio-Missouri River NRD, Lower Platte North NRD  
& Lower Platte South NRD  
Douglas, Cass, Sarpy and Saunders Counties**



**LOWER PLATTE  
WEED MANAGEMENT  
AREA**



# **Platte River Riparian Vegetative Management Plan for**

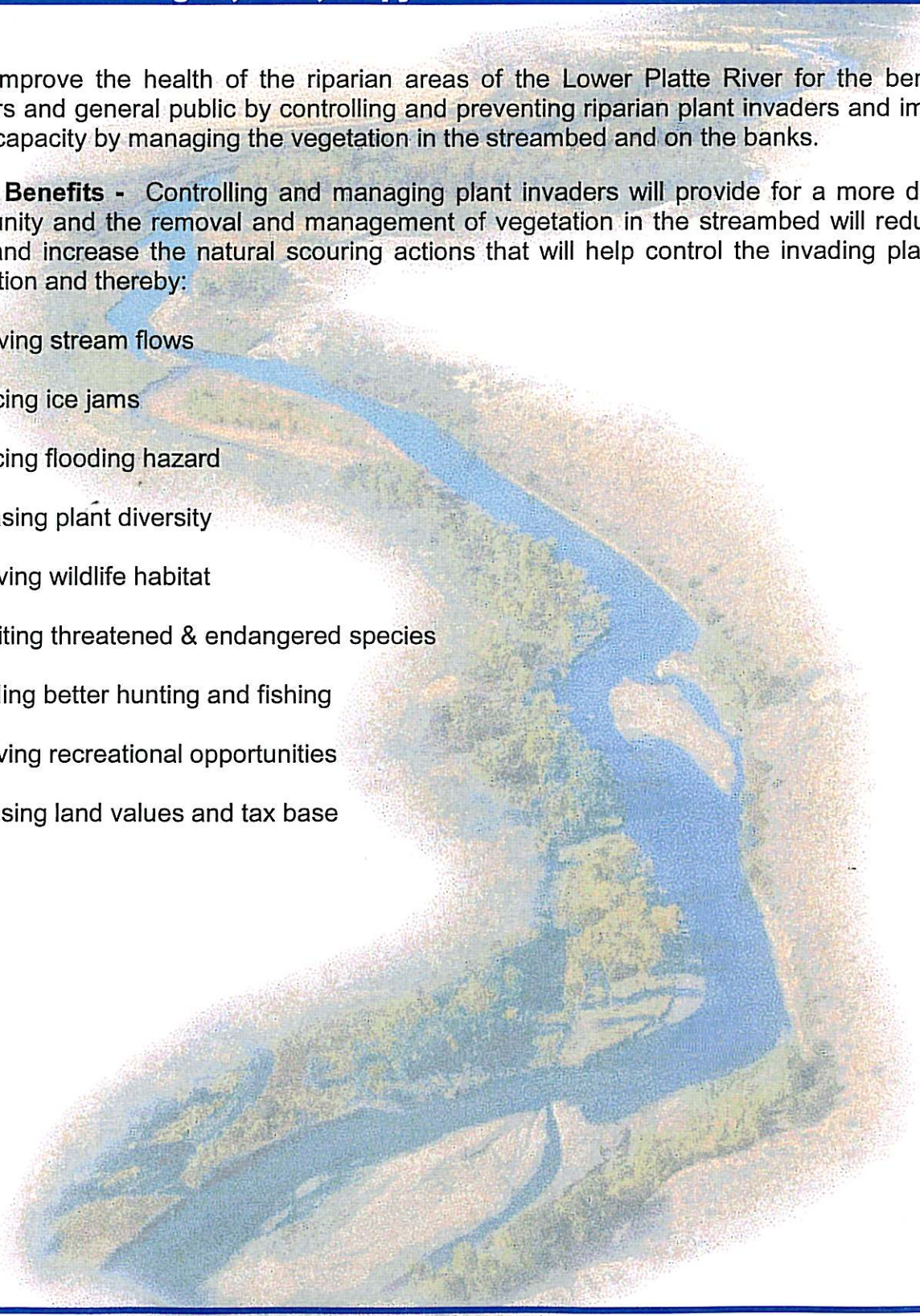
## **Papio-Missouri River NRD, Lower Platte North NRD & Lower Platte South NRD**

**Douglas, Cass, Sarpy and Saunders Counties**

**Goal** – To improve the health of the riparian areas of the Lower Platte River for the benefit the owners, users and general public by controlling and preventing riparian plant invaders and improving stream flow capacity by managing the vegetation in the streambed and on the banks.

**Anticipated Benefits** - Controlling and managing plant invaders will provide for a more desirable plant community and the removal and management of vegetation in the streambed will reduce flow restrictions and increase the natural scouring actions that will help control the invading plants and other vegetation and thereby:

- Improving stream flows
- Reducing ice jams
- Reducing flooding hazard
- Increasing plant diversity
- Improving wildlife habitat
- Benefiting threatened & endangered species
- Providing better hunting and fishing
- Improving recreational opportunities
- Increasing land values and tax base





# Riparian Noxious Weeds and Other Invasive Plants

There are major infestations of purple loosestrife, saltcedar and phragmites in upstream areas in and along the Platte River.



Purple loosestrife Central Platte River



Saltcedar at Lake McConaughy



Phragmites between North Platte and Kearney

## Purple Loosestrife

Some purple loosestrife began showing up in the Lower Platte River Basin ten years ago. It was designated a noxious weed in 2001. The Lower Platte Weed Management Area began control efforts in 2003. Over 4,000 acres have been controlled but continued follow-up efforts are needed with more landowner involvement. Surveys are required annually to determine the location and extent of infestations. Follow-up surveys are needed of 220 past infestations in Douglas and Sarpy Counties and 190 past infestations in Cass and Saunders Counties.

## Saltcedar

A few saltcedar infestations were found and have been controlled. Continued follow-up is needed.

## Phragmites

Scattered patches of phragmites were first observed in 2003. This very aggressive plant is expanding quite rapidly. An infestation can increase several times over in one year. Some control efforts have begun. Surveys in late 2007 found 117 sites in Douglas and Sarpy Counties. Early spring surveys may result in 50 more infestations found. The late 2007 surveys found 65 sites in Cass and Saunders Counties.



## Streambed Vegetation – Islands and Sandbars



There is over 1,000 acres of vegetated islands and sandbars in the 55 miles of Platte River streambed adjacent to Douglas, Cass, Sarpy and Saunders Counties. There has been an increase of vegetation in the streambed over time. Annual weeds get started on sandbars and then perennial plants including willows get a foothold. As time goes on trees get established. The natural scouring process is reduced as the more permanent vegetation becomes established. Dry periods, upstream use of water and the lack of a streambed vegetation management program have contributed to this condition.

The streambed vegetation has several adverse impacts. It provides sites for riparian noxious and invasive weeds to get established as seeds and plant parts from upstream are trapped. This compounds the vegetative problems. Stream flow capacity is reduced which can contribute to ice jams and flooding. It also impairs desirable habitat for the nesting of least terns and piping plovers- threatened and endangered species. Hunting and fishing and other recreational opportunities are impaired. These and other impacts can affect the streambed value and potential tax base.

A survey of vegetated islands is needed to determine priorities for streambed vegetation management.



Ice Jam



Interior Least Tern



# **Vegetation Management Cost Estimates**

**For**

**Platte River Streambed**

**Douglas, Saunders, Sarpy and Cass Counties**

**Papio – Missouri River NRD, Lower Platte North NRD**

**and Lower Platte South NRD**

			<b>Total</b>
<b>Information Program</b>			\$25,000
<b>Survey (annually)</b>			
	<b>Days</b>	<b>\$/day</b>	
Superintendent	10	\$160	\$1,600
Seasonal employee	10	\$80	\$800
Airboat use	10	\$600	<u>\$6,000</u>
Total			\$8,400
<b>Survey (helicopter)</b>	2	\$2,800	\$5,600
<b>Control (dependent on infestation sites found)</b>			
County application	10	\$320	\$3,200
Airboat use	10	\$600	\$6,000
Seasonal employee	10	\$80	\$800
Herbicides	23 gal	\$300	\$6,900
Contracted			
Ground application	400 ac	\$100	\$40,000
Helicopter	1,000ac	\$200	<u>\$200,000</u>
Total			\$256,900
<b>Follow up control of small infestations (annually)</b>			
County application	5	\$320	\$1,600
Airboat use	5	600	\$3,000
Seasonal employee	5	\$80	\$400
Herbicides	4 gal	\$300	<u>\$1,200</u>
			\$6,200
<b>Project Coordination</b>			\$10,000
<b>Total</b>			<b>\$303,700</b>
County Weed Control Authorities			\$8,400
Airboat operators			\$7,500
Landowners			\$37,800
Papio-Missouri NRD			\$200,000
Lower Platte North NRD			\$10,000
Lower Platte South NRD			\$40,000 (requested)

# **Action Plan**

- 1. Prepare an inventory of the control and management needs**
  - a. Survey areas for purple loosestrife, phragmites and saltcedar
  - b. Identify islands and sandbars that need vegetative control
  - c. Cost of surveys shared between counties and NRD
- 2. Carry out education and awareness efforts**
- 3. Provide assistance and incentives to landowners in carrying out the goal**
  - a. Provide landowners with maps of infestations and work with them on developing and implementing control plans
    - i. Expect control on public lands, sand and gravel operations, corporate owners, etc. w/o cost share
    - ii. Incentive 50/50 cost share with other landowners
    - iii. Follow-up control of small infestations 50/50 with county
  - b. Make contacts with county commissioners and assessors to encourage complete identification of ownership of the streambed
- 4. Provide control of Infestations w/o owner identification and no assumption of responsibility**
- 5. Control and removal of vegetation from islands and sandbars**
- 6. Develop a follow-up and maintenance program**

## **Timeline**

1. Preliminary Concept review with NRD staff by February 1, 2008
2. Plan for completion of the needed surveys.
  - a. Survey areas for phragmites by April 15, 2008
  - b. Survey areas for purple loosestrife and saltcedar by July 15, 2008
  - c. Identify islands and sandbars that need vegetative control by June 1, 2008
3. Preliminary plan for presentation to Papio Missouri River NRD March by 1, 2008.
4. Prepare a final Riparian Vegetative Management Plan based on the response to the preliminary plan by May 1, 2008.
5. Work with landowners in developing vegetative control and management plans
6. Have Request for Proposals (RFP's) for any contracted work ready by July 1, 2008.
7. Begin contracted control after August 1, 2008.