Charles M. Russell National Wildlife Refuge

Doney Bottom, Sand Creek Station

Benton Lake ISST

Accomplishments

Weed Species	Total Survey Acres ¹	Survey Acres Infested ²	Acres Treated ³
Russian olive	82.91	41.91	41.91
Saltcedar	*	0.02	0.02
Project Site Totals	82.91	41.93	41.93
	2 1		

¹ Area covered during the course of weed management activities regardless of presence or absence of target weed species as measured by perimeter in GIS.

 2 Area occupied by weed species within the survey area that does not contain the space between individuals or populations (i.e. net infestation size) as measured by GPS feature for monitoring and treatment combined, but areas in common not additive.

³ The area or subset of infested area that has received some form of treatment as measured by GPS feature.

* Saltcedar was not the target species, but found incidentally while surveying for Russian olive.

Highlights

Schedule

Dates	Project Type	Target Species	Size of Crew	Project Notes
7-July-2014 to	Refuge Project Chemical Treatment	Russian olive	8	Systematic survey of entire area.
11-July-2014	EDRR Chemical Treatment Project	Saltcedar		
21-July-2014 to 25-July-2014	Refuge Project Chemical Treatment	Russian Olive	5	Systematic survey of entire area.

Coordination and Cooperation

- Regional Invasive Species Biologist Bill Sparklin coordinated with Jody Jones and MaryJo Hill from the Sand Creek station about the project site, access, herbicide selection, and camping logistics for the Montana Conservation Corps (MCC) crew.
- ISST coordinated Tauzha Grantham to schedule the MCC crews. The two MCC crews had to work different weeks due to scheduling issues.
- Regional Invasive Species Biologist Bill Sparklin and BNL Strike team crew member Jaime Gutierrez worked with the MCC crew on the first trip to assist with mapping and herbicide use and in order to coordinate the second crew's efforts.
- The Regional Invasives Program also funded contractor spraying and the purchase of spray equipment at CMR. The spray equipment was used this summer to spray in McCone and Valley Counties. More information is provided below as Appendix A.

Prevention and Education

- Treating the uppermost infestations along riparian corridors and then working downstream helps prevent reinfestations.
- Treatments of species that occur in limited distribution are targeted in an effort to reduce the noxious weed management burden and prevent their spread across the landscape.

Early Detection and Rapid Response

- Several small saltcedar where found near where the crew parked at Doney Bottom. These were treated with *Habitat* herbicide and mapped. The crew conducted a targeted search within the immediate area after finding these individuals, and was more vigilant in searching for saltcedar while treating Russian olive for the remainder of the trip.
- A targeted search of surrounding drainages for saltcedar in 2015 may be useful in identifying seed sources located on the refuge for treatment.

Inventory and Monitoring

Weeds observed at the project site but not treated included Canada thistle, leafy spurge, and spotted knapweed.

Management

- Russian olive was present in greater abundance than originally estimated. In addition to the larger trees observable from the river, the understory within the cottonwood galleries had an abundance of Russian olive trees.
- Russian olive was the predominant understory tree in some areas. Management required cutting and removing the felled trees before additional trees could be treated. This significantly increased the amount of work required for treatment.
- Despite Russian olive being in greater abundance than anticipated, the crews were able to treat a considerable amount of acreage and their efforts were applauded by Jody Jones after his inspection of the treated area.
- Future management efforts should consider 2 crew members for moving brush and one crew member for applying herbicide for each sawyer felling Russian olive.

Herbicide Applied

▶ 55.5oz of *Habitat* was used for treatment of Russian olive and saltcedar.

Proposed 2014 Schedule

Scheduling is limited by seasonal flooding of the project site and the start of the archery hunting season, so 2015 treatments would likely occur during the same time period. Hot temperatures, high humidity, and numerous biting insects are all factors that will need to be addressed while planning the project and at tailgate safety sessions.

Appendix A.

Date: January 29, 2015 To: Glen Guenther and Lindy Garner From: Jody Jones

Subject: Sand Creek, CMR Invasive species control 2014. In August of 2014 we had two crews of MT conservation Corps folks working on Russian olive on Doney bottom. Each crew worked one week. They used habitat herbicide and treated the stumps with two back pack sprayers at a rate of 12 ounces/gallon in the mix. An estimate of 20 gallons total was used. I estimate they treated about 3-4 acres.

Highland Spray Service LLC from Lewistown MT. They sprayed Russian knapweed on Kendall bottom, Manning bottom, and along road 201 and some spur roads going to the camping areas along the Missouri river in Phillips county. The operator, Dale Strouf also sprayed Hoary Cress along the Knox Ridge road in Fergus county as well as on Knox bottom. He also sprayed two acres of leafy spurge on Knox bottom as well.

In summary: Russian Knapweed: 58 acres treated. Chemical: Milestone (Dow Agro) 406 ounces @ 7 oz/acre. EPA Reg. no. 62719-519

Hoary Cress (white top): 48 acres treated. Chemical: Escort xp (DuPont) 48 ounces @ 1 oz/acre. EPA Reg.no 352-439.

Leafy Spurge: 2 acres treated. Chemical: Tordon 22K (Dow Agro) 64 ounces @32 oz/acre. EPA Reg.no. 62719-6

Jody M. Jones

U.S. Fish & Wildlife Service



MOYOCO Invasive Species Strike Team

CMR NWR Doney Bottom - 2014 Survey Acres Infested and Treated



Date: January 29, 2015

To: Glen Guenther and Lindy Garner

From: Jody Jones

Subj: Sand Creek, CMR Invasive species control 2014.

In August of 2014 we had two crews of MT conservation Corps folks working on Russian olive on Doney bottom. Each crew worked one week. They used habitat herbicide and treated the stumps with two back pack sprayers at a rate of 12 ounces/gallon in the mix. An estimate of 20 gallons total was used.

I estimate they treated about 3-4 acres.

Highland Spray Service LLC from Lewistown MT. sprayed Russian knapweed on Kendall bottom, Manning bottom, and along road 201 and some spur roads going to the camping areas along the Missouri river in Phillips county. The operator, Dale Strouf also sprayed Hoary Cress along the Knox Ridge road in Fergus county as well as on Knox bottom. He also sprayed two acres of leafy spurge on Knox bottom as well.

In summary:

Russian Knapweed: 58 acres treated.

Chemical: Milestone (Dow Agro) 406 ounces @ 7 oz/acre.

EPA Reg. no. 62719-519

Hoary Cress (white top): 48 acres treated.

Chemical: Escort xp (DuPont) 48 ounces @ 1 oz/acre.

EPA Reg.no 352-439.

Leafy Spurge: 2 acres treated.

Chemical: Tordon 22K (Dow Agro) 64 ounces @32 oz/acre.

EPA Reg.no. 62719-6

Jody M. Jones