

NORTH DAKOTA GAME AND FISH DEPARTMENT

Final Report

Removal of Russian Olive Trees and Other Woody Vegetation in Grassland, Wetland,
and Riparian Habitats

Project T-20-D-1

May 1, 2007 – December 31, 2008

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Submitted by
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North Dakota SWG Final Report

State Agency: North Dakota Game and Fish Department

Project Title: Removal of Russian Olive and other woody vegetation in riparian, grassland, and wetland habitats

Activity Period: September 1, 2007 – January 1, 2009

Location: District IV, V, VI (South Central North Dakota, Northwestern North Dakota)

History:

The Russian olive is a large, spiny, perennial deciduous shrub or small growing tree (up to 40ft.) that is usually found in riparian areas, as well as fields and other open areas. The Russian olive was introduced to the central and western United States in the late 1800's as an ornamental tree and a windbreak, before spreading into the wild. The Russian olive is found throughout North America, but mainly in the central and western portions of the United States. After introduction it escaped cultivation and naturalized in 17 western states from the Dakotas, Nebraska, Kansas, Oklahoma, and Texas westward to the Pacific coast. It is most abundant in the Great Basin Desert region and the riparian zones of the Great Plains. The Russian olive was purposely introduced by human beings since it is an attractive, thriving landscape species. The plant is quite hardy thus making it a very popular planting particularly in southwest North Dakota. In the 1940's, the Russian olive was deliberately planted in the eastern and southern U.S. for revegetation of disturbed areas and until recently it was transplanted for wildlife planting and windbreaks by the U.S. Soil Conservation Service.

The Russian olive, with its tendency to spread quickly, is a menace to riparian woodlands, threatening strong, native species like cottonwood and willow trees. They are responsible for out competing native vegetation, interfering with natural plant succession and nutrient cycling and marshlands in the western United States. This displacement of native plant species and critical wildlife habitats has undoubtedly affected native birds and other species. The heavy, dense shade of the Russian olive is also responsible for blocking out sunlight needed for other trees and plants in fields, open woodlands and forest edges. Overall, areas dominated by the Russian olive do not represent a high concentration of wildlife.

Need:

Russian olive control on North Dakota's wildlife management areas to enhance wildlife habitat for grassland and wetland birds.

Objective:

Russian olive control is considered to be a two step effort.

1. All of the literature encourages mowing the Russian olive with a brush type mower and removing cut material,
2. Applying chemical (Habitat) to the stumps of the mechanically removed trees.

Schedule of Work:

<u>Year</u>	<u>Work to be conducted</u>
2007	Work to begin August 1 and will be complete by November 30
2008	Work to begin August 1 and will be complete by November 30

2007 Progress:

Following the purchase of the timber axe in August of 2007, the District IV Wildlife Division treated approximately 55 acres of grassland habitat due to encroaching Russian olive trees. This effort was followed-up with the chemical application to prevent the return of these invasive trees. The following locations were treated:

Henderson WMA (Burleigh County, Sec 30-T139N-R79W) 10 acres
Oahe WMA (Burleigh County, Sec 24-T137N-R80W) 12 acres
Oahe WMA (Burleigh County, Sec 17-T137N-R79W) 14 acres
Oahe WMA (Burleigh County, Sec 26-T137N-R79W) 7 acres
Oahe WMA (Morton County, Sec 15-T137N-R80W) 12 acres

2008 Progress: 75 acres

Oahe WMA (Morton County Sec 15-T137N-R80W) 19 acres
Williston District – (maps attached) 32.6 acres
Neu's Point WMA (McKenzie County Sec 15-T152N-R104W)
Lewis and Clark WMA (McKenzie County Sec 5-T153N-R101W)
Lewis and Clark WMA (McKenzie County Sec 35-T153N-R102W)
Riverdale District – (maps attached) 23.4
Mallard Island WMA (McLean County Sec 7-T147N-R83W)
Mallard Island WMA (McLean County Sec 7- T147N-R83W)

10152104

11152104

12152104

Neu's Point Russian Olive Removal,
2007-2008

17 acres in 2007 with Tree Shear
6.2 acres in 2008 with Timber Axe

15152104

14152104

13152104

Tree Shear, 2007

Timber Axe, 2008

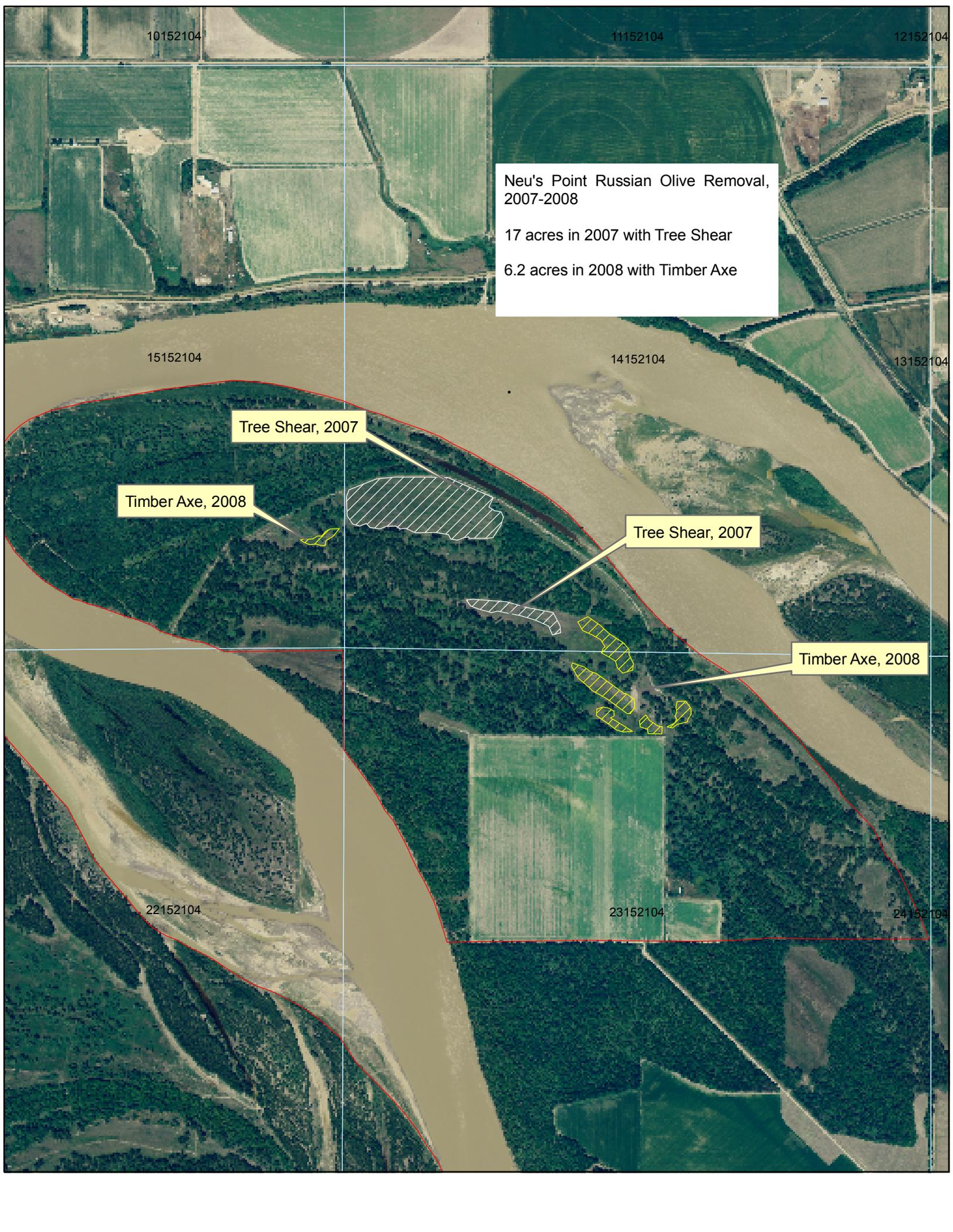
Tree Shear, 2007

Timber Axe, 2008

22152104

23152104

24152104



26153102

Lewis and Clark Russian Olive
Removal 2008

18.4 acres with Timber Axe

35153102





Lewis and Clark Russian Olive
Removal, 2008
8 acres with Timber Axe

31154101

3215410

33154101

6153101

5153101

4153101

7153101

8153101

9153101



Mallard island
17.3 ac
McLean County Sec 7-T147N-R83W

Mallard Island
6.4 ac
McLean County Sec 7-T147N-R83W

Pictures:



