

NORTH DAKOTA GAME AND FISH DEPARTMENT

Final Report

Riparian Restoration on Western Wildlife Management Areas

Project T2-1-D

February 1, 2009 – March 31, 2011

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Director

Submitted by
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May 2011

Project Title: Riparian Restoration on Western WMAs

Cooperator Name: National Wild Turkey Federation (NWTF)

Principal Contact: Jared W. McJunkin – Conservation Field Supervisor
National Wild Turkey Federation

Other Cooperators: North Dakota Game & Fish, Field Services and Weed Control LLC (Cody, WY), North Dakota NWTF State Chapter

Species of Conservation Priority (SoCP)

Primary Species

Sturgeon Chub and Sicklefin Chub (Level I), Flathead Catfish (Level II)

Secondary Species

Red-headed Woodpecker (Level II), Bald Eagle (Level II), Golden Eagle (Level II), Northern Redbelly Snake (Level II)

General Project Overview & Accomplishments

The National Wild Turkey Federation was awarded this State Wildlife Grant from North Dakota Game & Fish (NDGF) during the fall of 2008. Three primary objectives were identified in the proposal:

- (1) Complete 180 acres of Russian olive removal/control on Western Wildlife Management Areas (WMAs) to include 40 acres on Ochs and the balance on Trenton and Lewis & Clark WMAs.
- (2) Improve habitat conditions on WMAs by creating openings for terrestrial wildlife species.
- (3) Increase public awareness regarding the problems with Russian olive invasion in riparian systems and re-enforce the values of riparian areas to North Dakota's wildlife, people and economy.

The primary reason for undertaking this project was to improve the condition of riparian areas along the Yellowstone and Missouri Rivers where these rivers flow through NDGF properties. This was done through this SWG grant in order to address two Level I - Species of Conservation Priority (SoCP), the Sturgeon Chub and the Sicklefin Chub, as identified in NDGF's State Wildlife Action Plan (SWAP). Removal of invasive riparian species, such as Russian olive, was identified in the SWAP as a habitat management technique to improve the habitat for these aquatic species. Presence of Russian olive in adjacent upland sites leads to grassland fragmentation and decreased use by grassland bird species, one of the fastest declining suites of species in North America. Removing Russian olive from riparian areas within the project boundary should improve riparian corridor health, but also reduce the seed source available for Russian olive colonization of adjacent upland sites. Also, by removing invasive Russian olives, we will increase openings in the riparian forest beneficial to many other wildlife species, including the species listed above as secondary species and game species such as pheasant, wild turkeys, and white-tailed deer.

The NWTF had initially planned to complete Russian olive removal on Ochs WMA (estimated at 40 acres) and then move to Trenton and Lewis & Clark and try to do another 140 acres of treatments. During the course of the grant, we secured additional funding, both through the SWG program and other partner funding, including funding from the National Wild Turkey Federation's Northern Plains Riparian Restoration Initiative (NPRRI), the NWTF's North Dakota State Chapter Hunting Heritage Super Fund, and Field Services and Weed Control LLC through a donation of chemicals for Russian olive treatment. The NWTF was originally awarded \$22,500 in SWG dollars and this was later increased to \$31,500. We

were able to match this with \$33,500 in partner funding for on-the-ground habitat improvement work and outreach and education efforts.

Through the additional funding and partner match we were actually able to treat 262 acres of Russian olives with a foliar treatment of herbicide, 50 acres with a cut-stump mechanical treatment. In all, over 1,852 acres of North Dakota Game & Fish WMA acres were surveyed for Russian olive and all Russian olives found were treated. We were successful at treating the entire Ochs WMA, *which ended up being 124.9 acres total instead of the estimated 40 acres in our original proposal*, the entire Neus Point WMA, the entirety of the newly acquired Sullivan WMA, and to start Russian olive control on Trenton and Lewis and Clark WMAs. In all, 312 acres of Russian olive were directly treated, either with a foliar treatment of herbicide or by mechanical removal (chainsaw) followed up with a cut-stump herbicide treatment. Field Services and Weed Control LLC, owned and operated by Scott Votaw, completed all of the foliar treatments and a combination of two contractors, one hired by the NWTF and one by NDGF, completed the mechanical removal on Ochs and Sullivan WMAs. Field Services was a large partner in this project, donating over \$4,000 in herbicide for Russian olive treatments. In addition to the work completed through this grant, the NWTF assisted NDGF in securing available Natural Resource Conservation Service (NRCS) funding available to them through the Wetlands Reserve Program (WRP) for brush management on Ochs and Sullivan WMAs. This allowed us to use the contractor while on site completing the SWG grant work to complete additional acres and expend another \$12,055 for on-the-ground habitat work. These were federal dollars and thus were not counted as match. However, these dollars did allow us to improve additional acres and expand the project area. The last treatment occurred in September 2010 and I have attached the latest report documenting what was accomplished during that final treatment period. Maps of the treated areas are included in Appendix 2.

In addition, to the on-the-ground management of the riparian areas on these western North Dakota WMAs, one of the NWTF's primary objectives was to increase public awareness regarding the problems associated with Russian olive invasion in riparian systems and re-enforce the values of riparian areas to North Dakota's wildlife, people and economy. We accomplished this objective by co-hosting, with NDGF, a riparian workshop at the project site for nearly 60 resource professionals from across the region, including North Dakota and Montana. The workshop was very well attended by representatives from NDGF, the Natural Resources Conservation Service from ND and Montana, Bureau of Land Management, US Fish & Wildlife Service, U.S. Army Corps of Engineers, USDA Agricultural Research Services, tribal agencies, and others. Scott Votaw, with Field Services and Weed Control LLC, gave a presentation on best management practices for the treatment of Russian olives including a handout and discussion with attendees. The NWTF also provided information on the importance of riparian area habitats to wildlife, specifically in the Northern Great Plains states, and the current conservation threats, including invasives such as Russian olive, to riparian areas. The NWTF secured additional outside funding for the workshop from the Northern Great Plains Joint Venture.

The project is now complete and NDGF has agreed to continue to monitor the success of the removal for use in future Russian olive treatment projects. Area staff will monitor any Russian olive re-sprouts for immediate treatment and will survey wildlife use of the treated areas for a comparison with untreated areas.

Comments – The NWTF is grateful for the additional funds this SWG grant provided to us that allowed us to garner additional partner match and treat a significant area of Russian olives on NDGF WMAs. We are pleased that we were able to expand our original estimated treatment area from 180 acres to 312



acres and are proud of this accomplishment. NDGF has been great to work with and deserve a lot of credit for the success of this project.



Appendix 1. SWG Implementation Report Sept 17,2010



North Dakota Game and Fish Department

State Wildlife Grant Implementation Report

Project Title Riparian Restoration on Western Wildlife Management Areas		SWG Federal Aid No.	
Cooperator Name National Wild Turkey Federation		Principal Contact Jared W. McJunkin	
Other Partners North Dakota Game & Fish, North Dakota NWTF Chapter, Field Services & Weed Control LLC			
Township	Range	Section	¼
152-N	104-W	21-23, 26-28	NA
153-N	102-W	29 & 30	NA
153-N	101-W	6-8	NA
County McKenzie		Name of Location or other description Ochs WMA, Sullivan WMA, Trenton WMA, and Lewis & Clark WMA	
Land Ownership <input type="checkbox"/> Private <input checked="" type="checkbox"/> State – NDGF <input type="checkbox"/> State – Other: <input type="checkbox"/> Federal Agency: <input type="checkbox"/> Non-governmental <input type="checkbox"/> Other (explain)			
Type of Implementation or Conservation Action <input type="checkbox"/> Perpetual Protection <input type="checkbox"/> Long-term Protection <input type="checkbox"/> Short-term Protection <input checked="" type="checkbox"/> Enhancement <input type="checkbox"/> Creation <input checked="" type="checkbox"/> Restoration <input type="checkbox"/> Other (explain)			
Description of Implementation or Conservation Action The NWTF and NDGF hosted a "Riparian Management Workshop" on May 20 th , 2010 during this reporting period. The workshop was very well attended by representatives from NDGF, NRCS, BLM, USFWS, USACOE, USDA ARS, and others. Nearly 60 resource professionals attended the workshop which included a tour of the areas of Russian olive that were treated in 2009. In addition, Scott Votaw, with Field Services and Weed Control			



LLC, gave a presentation on best management practices for the treatment of Russian olives including a handout and discussion with attendees. The NWTF also provided information and gave a presentation on the importance of riparian area habitats to wildlife, specifically in the Northern Great Plains states, and the current conservation threats, including invasives such as Russian olive, to riparian areas. The entire workshop cost \$605.16 and outside funding was secured from the Northern Great Plains Joint Venture by the NWTF for refreshments. Also during this grant period the NWTF purchased a GPS for use on this project to verify acres treated, photo points, etc. Cost was \$476.99 and the invoice is attached.

In addition to the riparian workshop, another field season treating Russian olives also took place. In 2010, the entire Ochs Point WMA (990+ acres) was again surveyed and 21.5 acres of Russian olive resprouts and small Russian olives leftover from the 2009 field season were chemically treated with a foliar application of herbicides by Field Services & Weed Control LLC out of Cody, WY. Additionally, the entire Sullivan WMA (265 acres) was surveyed and 38.0 acres of cut-stumps were treated using foliar chemical methods by Field Services. These trees were felled during the winter of 2010 by NDGF-contracted labor. Through this grant, we can now say that we have accomplished the goal of treating Russian olives on three WMAs (Neus, Ochs, and Sullivan) and were able to get the infestation to a manageable level where NDGF staff have a realistic chance of keeping the infestation at this level.

In addition, 12 acres of Russian olives on Lewis & Clark WMA were treated with a foliar herbicide application, as were 32.1 acres on Trenton WMA. These locations were determined by NDGF manager, Kent Luttschwager. In all 103.6 acres of Russian olives were treated with a foliar application of herbicide during a period from August 18th - August 23rd. An additional \$5,023 in WRP funding was secured for the treatments on Sullivan WMA through the NRCS. Though this cannot be used as match, it did allow us to accomplish more treated acres on the Sullivan WMA. Removing Russian olives opens up cottonwood galleries and promotes native species establishment in these areas and will benefit a host of wildlife species, both game and non-game, including several species of Conservation Priority identified in the North Dakota State Wildlife Action Plan.

Implementation Begin Date	End Date	Length of Action
3/15/10 - including Riparian Workshop	09/16/10	25+ weeks
Total Acres or Miles of Stream/River Affected	Total Cost	
103.6 directly treated	\$18,973.65	
Description of Existing Habitat		
Cottonwood riparian areas along the Yellowstone and Missouri Rivers with infestations of invasive Russian olive trees.		
Species of Conservation Priority Benefited		
Sturgeon Chub and Sicklefin Chub (Level I) & Flathead Catfish (Level II), Red-headed Woodpecker (Level II)		
Bald Eagle (Level II), Golden Eagle (Level II), Northern Redbelly Snake (Level II)		



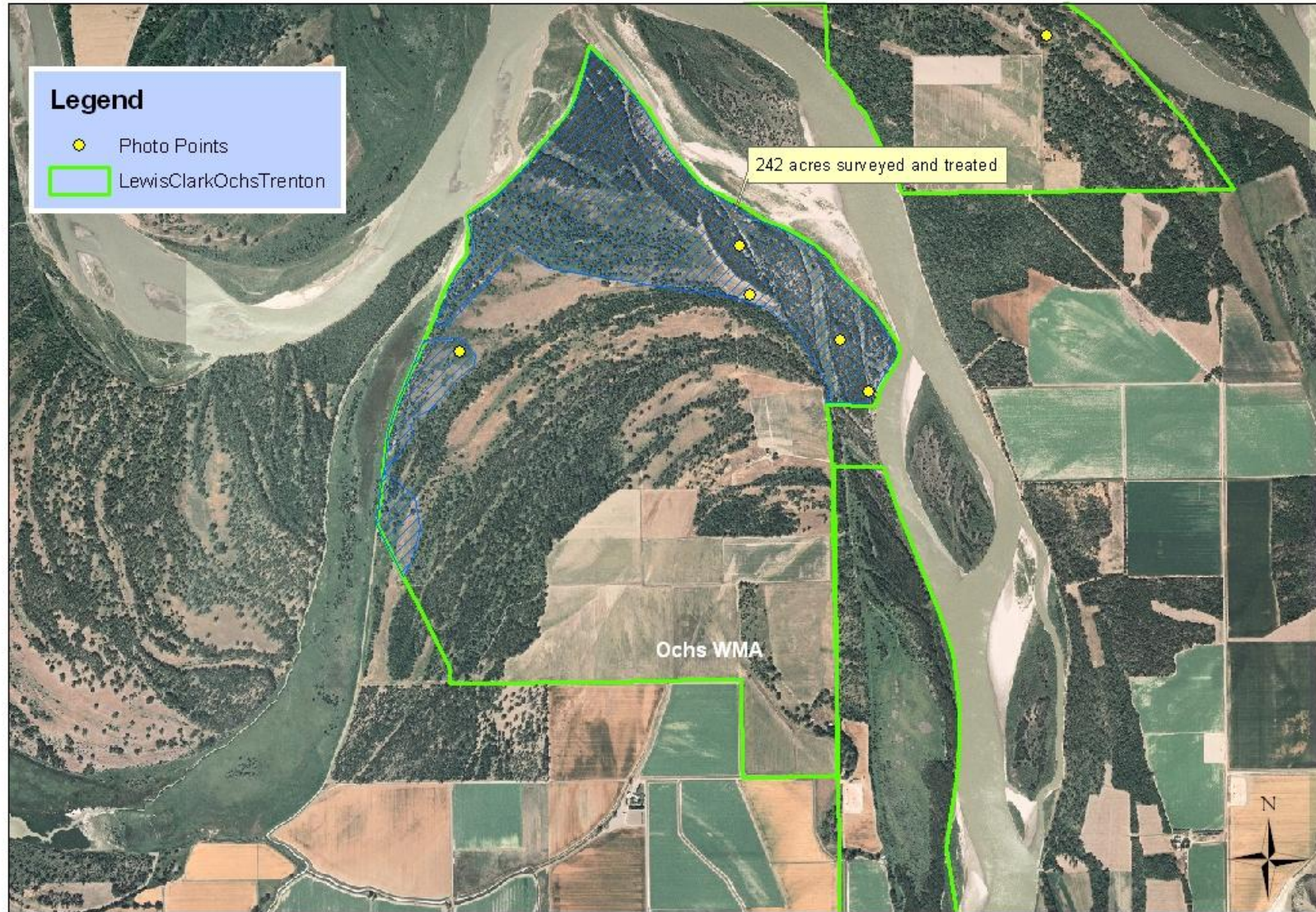
Other Species Benefited	
Wild turkey, white-tailed deer, various song birds and small mammals, and neo-tropical migrants	
Other Comments	
Attached to this report are five attachments including: Attachment A - (Attachment A_SWG Reimbursement Form_Western_Riparian_9-10), Attachment C - (Attachment C_Project Implementation_Maps), Attachment D - (Attachment D_Project Implementation_Photos), Attachment E - (Attachment E_Invoice_Field_Services_2010), Attachment F - (Attachment F_Invoice_GPS), Attachment G(Attachment G_Field Services_Donation Letter).	
Form Completed By	Date
Jared W. McJunkin - CWB	9/17/2010
<p><i>Form must be returned to the ND Game and Fish Department within 30 days of implementation. Completed form, accompanying photos and maps may be emailed to Sandy Johnson (sajohnson@nd.gov). Hard copies may be mailed, in addition to submitting the form electronically, to North Dakota Game and Fish Department, Attn: Sandy Johnson, 100 N. Bismarck Expressway, Bismarck, ND 58501.</i></p>	

Appendix 2. Maps of treated areas

Neus Point Wildlife Management Area - 2009 Russian Olive Foliar Treatments Field Services and Weed Control LLC

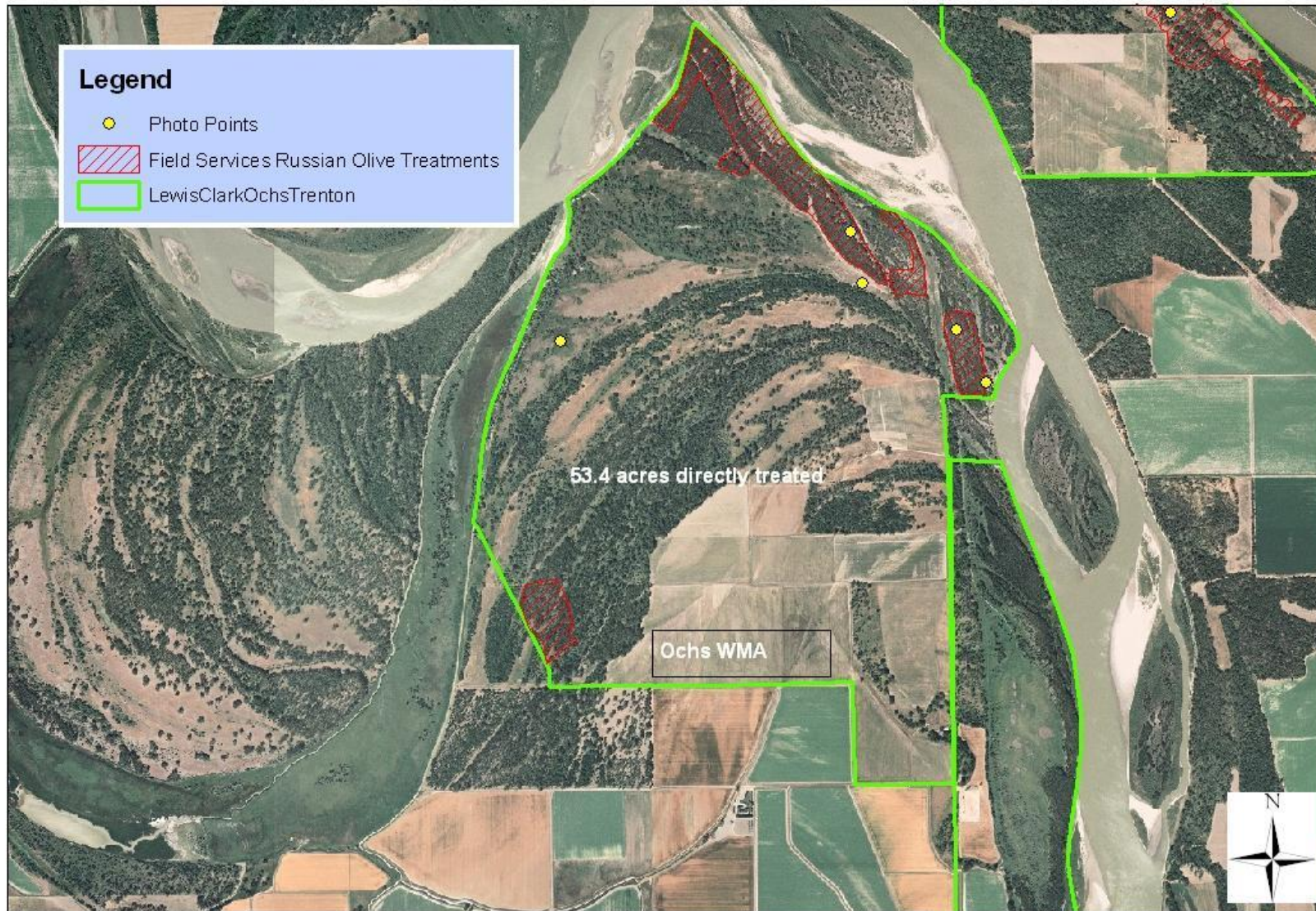


Ochs WMA - 2009 Russian Olive Cut-Stump Treatments Berg Tree Company LLC

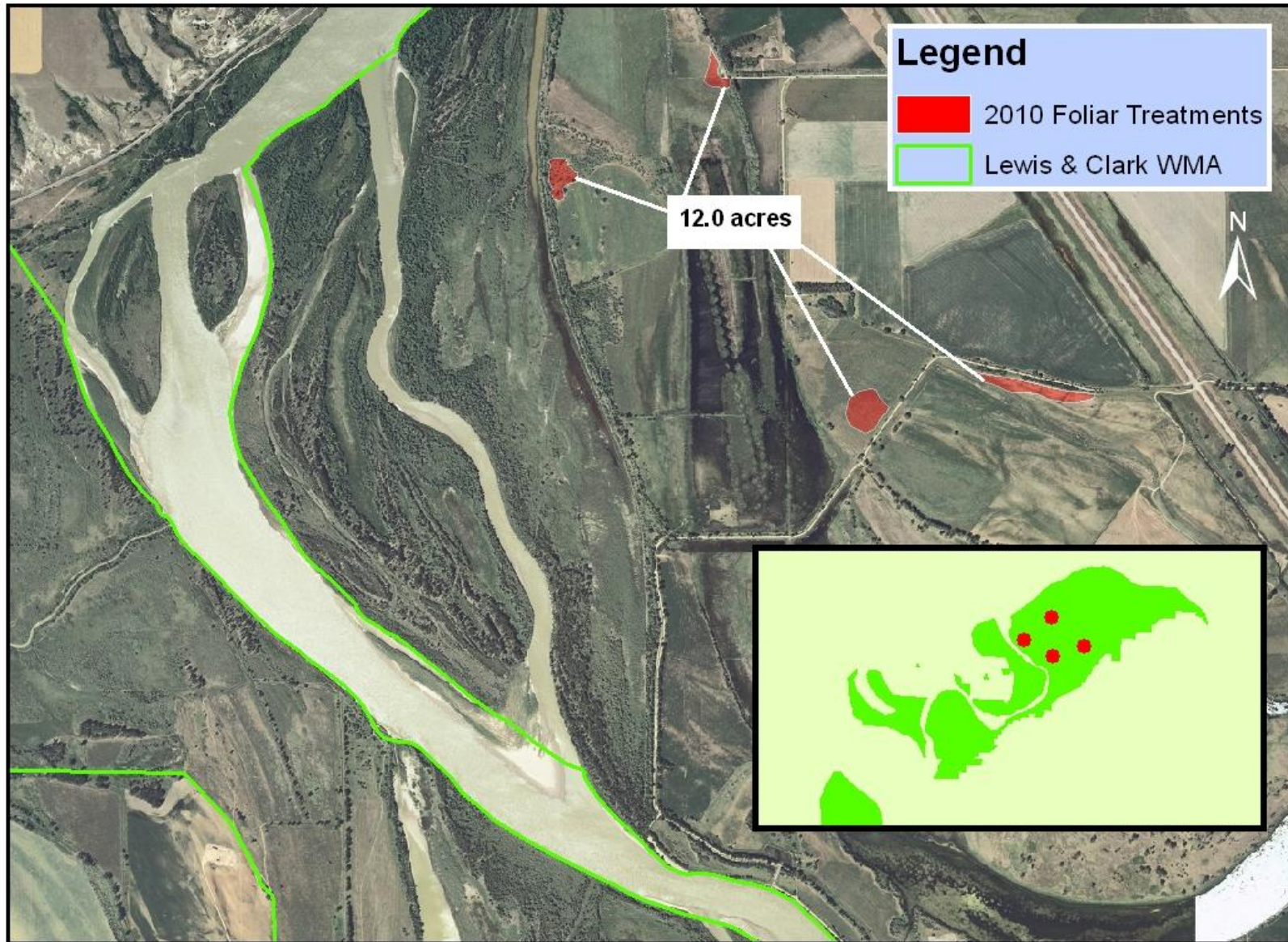


Ochs WMA - 2009 Russian Olive Foliar Treatments

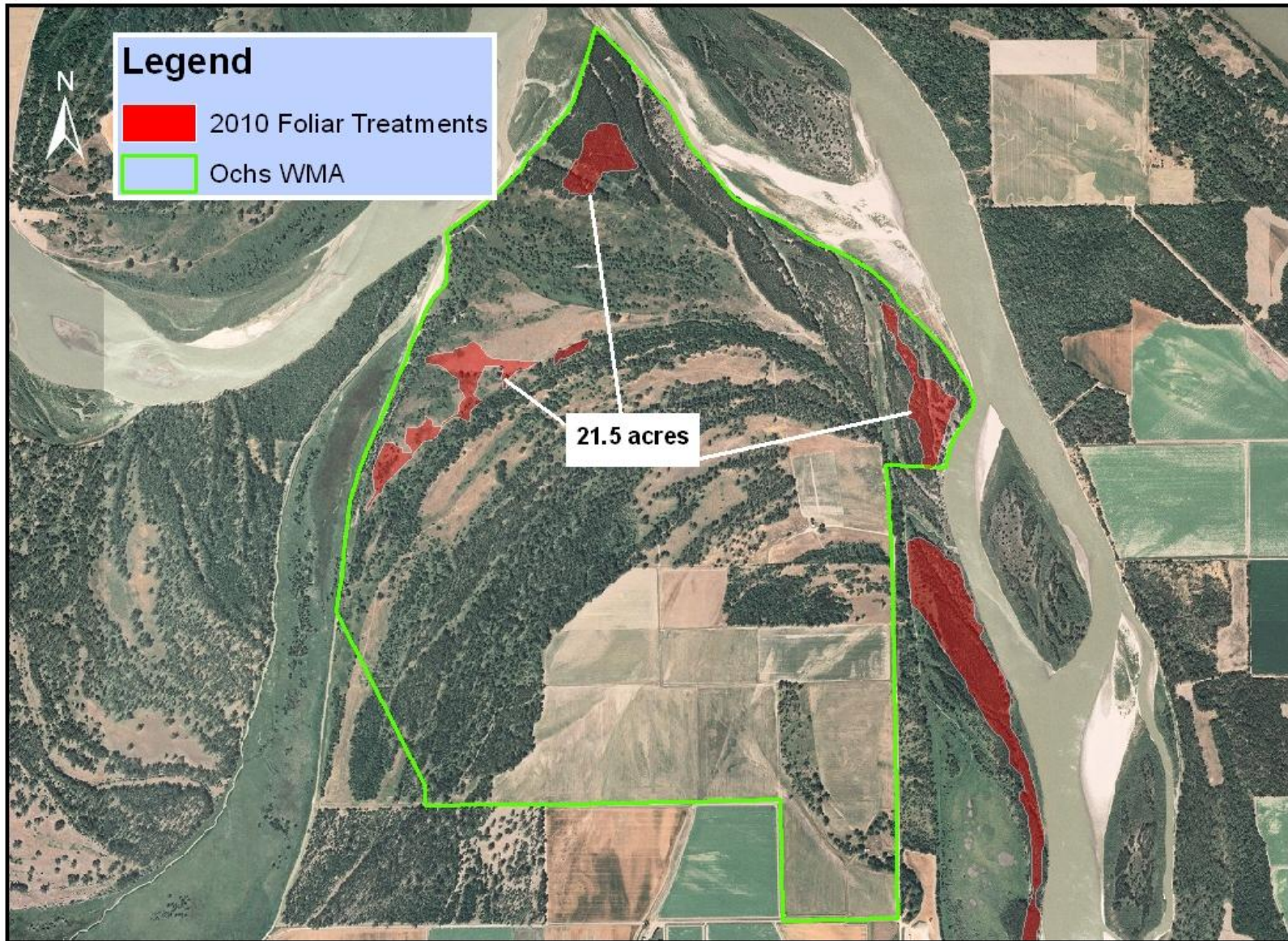
Field Services & Weed Control LLC



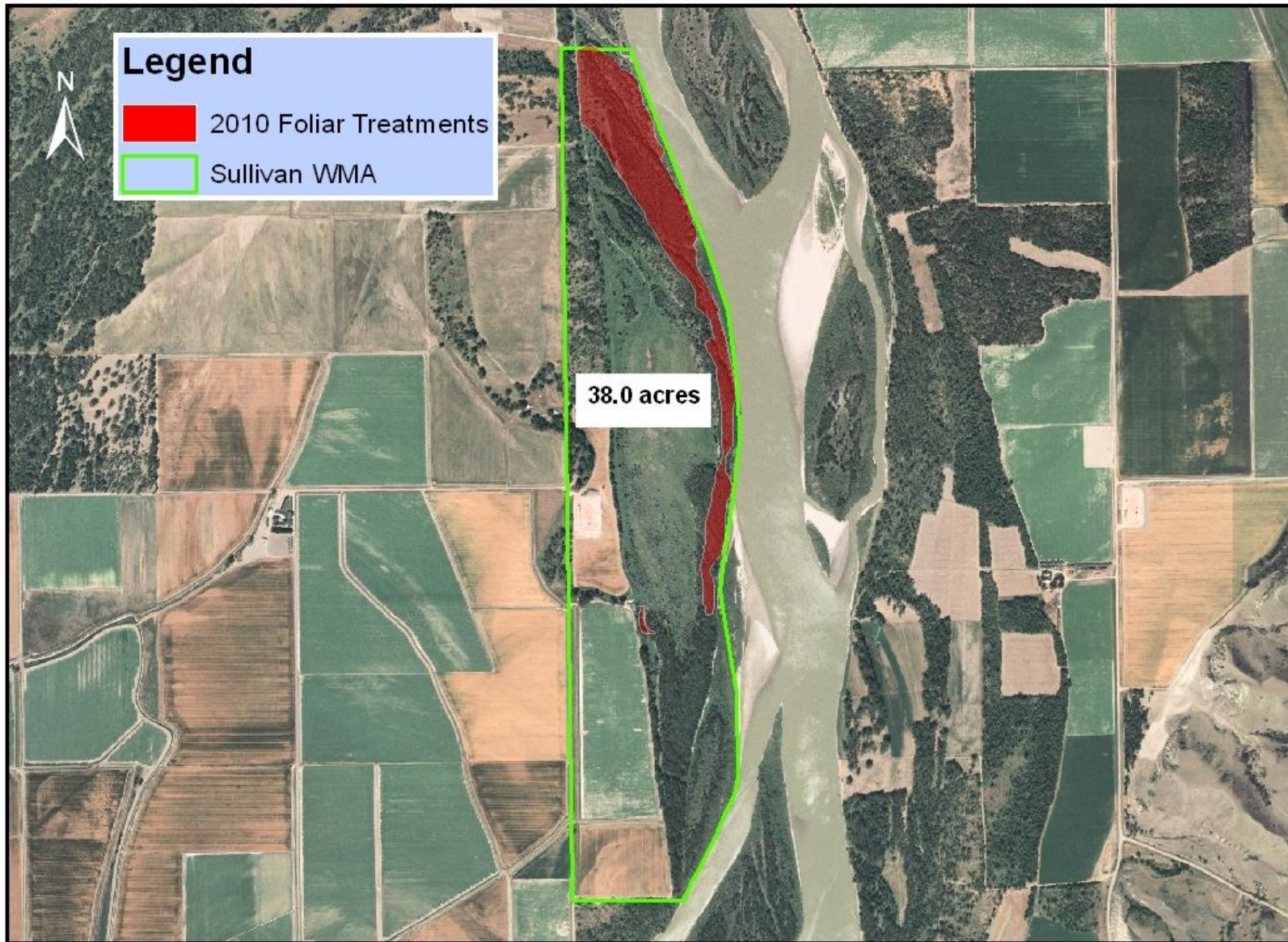
Lewis & Clark WMA - 2010 Foliar Russian Olive Treatments



Ochs WMA - 2010 Foliar Russian Olive Treatments



Sullivan WMA - 2010 Foliar Russian Olive Treatments



Trenton WMA - 2010 Foliar Russian Olive Treatments

