South Fork Republican River Restoration I

History

- Similar work in Co and NE
- Started in October 2015, submitted NAWCA grant in partnership with Cheyenne County
- Grant awarded in ~May 2016

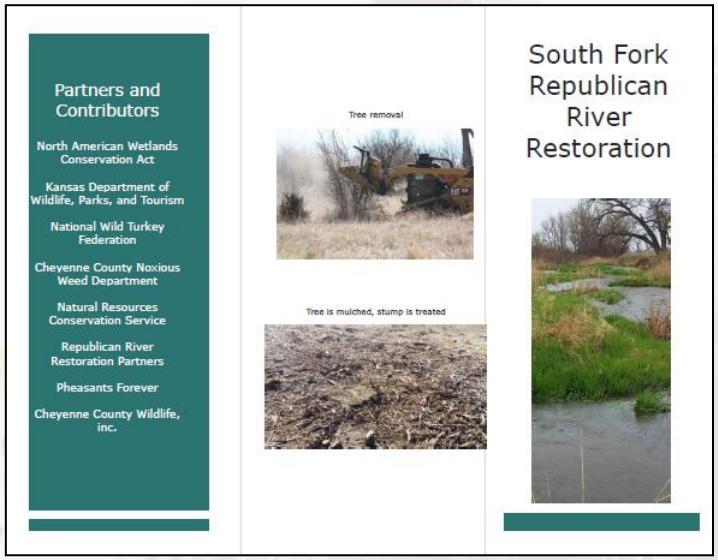
Goals

- Improve wildlife habitat
- Open canopy to provide waterfowl roosting habitat and hunting opportunities
- Control encroachment of saltcedars and Russian Olive
- Improve the health of the river system
- Restore surface and ground water flows in the Republican River

How

- Removal of Saltcedar, Russian olive (and Eastern redcedar)

South Fork Republican River Restoration I



Partners and Contributors

North American Wetlands Conservation Act

Kansas Department of Wildlife, Parks, and Tourism

National Wild Turkey Federation

Cheyenne County Noxious Weed Department

Natural Resources Conservation Service

Republican River Restoration Partners

Pheasants Forever

Cheyenne County Wildlife, inc.

Tree removal

Tree is mulched, stump is treated

South Fork Republican River Restoration

Saltcedar/Tamarix
(Tamrix spp.)

Identification:

Shrub or tree like growth form
Often 5-20' tall
Scale like leaves
Flowers in May through October
Bunches of small pink flowers at branch tips

Impacts:

Increases salinity of nearby soil
Reduces water levels in streams
Impedes stream flows
Can increase intensity of wildfire
Aggressive colonizer
Offers very little browsing forage
Alters the ecology and hydrology
Forms dense monocultures
Non-native introduced into America
Competes with native species

Russian Olive
(*Elaeagnus angustifolia*)

Identification:
Deciduous tree often 10-30' tall
Silvery appearance
Aromatic smell
Thorny branches
Yellow flowers

Impacts:

Aggressive colonizer
Reduces water level in streams
Can increase intensity of wildfire
Forms mono cultures
Non-native introduced into America
Competes with native species

Goals:
Restore surface and ground water flows in the Republican River.

Improve the health of the river system

Improve wildlife habitat

Open canopy to provide waterfowl roosting habitat and hunting opportunities

Control encroachment of saltcedars and Russian Olive

Location and Project

Land in Cheyenne County within a ½ mile of the South Fork Republican River

Cutting of Saltcedar and Russian Olive using mechanical means and spraying cut stumps

Method of control may vary due to topography and location

Cost Share assistance provided

Contact:

Cheyenne County Noxious Weed Department

(785) 332-8840

Kansas Department of Wildlife, Parks and Tourism

(785) 462-3367

Private land

- 75% cost share
- Advertised by word of mouth, local paper, mailings, and meetings

South Fork Republican River Restoration I

Problems

- People like trees
- Turkeys eat the seed
- windbreaks
- Contractor issues

Habitat First
Create · Enhance · Restore

Russian Olive and Saltcedar Management

South Fork Republican River Restoration

When controlling Russian olive and saltcedar, any control method used requires continual upkeep. This involves suppression of new seed, as well as stump and root resprouts. Russian olive seeds can survive in the soil for years. For at least 3 years following the initial treatment, monitoring and control of resprouts is required

Figure 1: Actively growing Russian olive (left), dormant saltcedar (right)

Garlon 3A was chosen for this project as it provides control of woody species and is made for use in areas near aquatic environments. Garlon 3A is a triclopyr amine, meaning it is a salt solution that is soluble in water and degrades with sunlight. The contractor is cutting/mulching the trees and immediately spraying Garlon 3A on the stumps.

Figure 2: Russian olive stump that had been recently cut and mulched.

Spot Spraying

For at least 3 years following the initial treatment, monitoring and control of resprouts is required.

For foliar spraying, the herbicide can be applied June through early October when the plants are actively growing with September being the most effective. We suggest using a mixed solution of Vastlan or Garlon 3A and Milestone. Be sure to consult the product label for proper mixing rates and effects on desirable plant species.

Vastlan at 3 quarts/acre + 7 ounces Milestone/acre + .25% surfactant + .5% dye

25 gal tank= 80oz Vastlan + 1.75oz Milestone + 11oz surfactant + 16oz dye

It is suggested to wait at least 6 months after the initial cutting to spray resprouts. This time allows the plants to grow a larger leaf area for better intake of the chemical. The resprouts should be at least 3'-4' tall. September and October are shown to be the most effective time to spray resprouts. The addition of Milestone provides better control and can be used to spray thistles. Adding a blue dye is recommended to view coverage on sprayed plants

Figure 3: Russian Olive resprout, 3-4 months after initial cutting.

Wildlife

Besides outcompeting native species and reducing groundwater, Russian olive and saltcedar have their negative effects on wildlife too. Many wildlife species prefer native vegetation, like Willow or Cottonwood, over Russian olive or saltcedar.

The limited number of lakes and ponds in Western Kansas make rivers an important stopover point during migration. The removal of Russian olive and saltcedar will open up the riparian canopy for waterfowl to better use this area.

Wild turkeys are common along the South Fork Republican River and utilize large Cottonwood trees for roosting. When turkeys roost, they need an open understory beneath roost trees. Cottonwoods are favored roost sites, and an understory of Russian olive and saltcedar does not allow young cottonwood trees to establish, and will limit the availability of roost trees in the future. Smaller growing trees in the understory create predator habitat. Russian olive and saltcedar do not create quality nesting habitat. Low growing shrubs, grasses and forbs provide nesting hens protection and visual coverage whereas taller growing shrubs and smaller growing trees, like saltcedar, need removed.

Kansas Dept. of Wildlife Parks & Tourism
Colby Office
785-462-3367

Cheyenne County Noxious Weed Dept.
St. Francis
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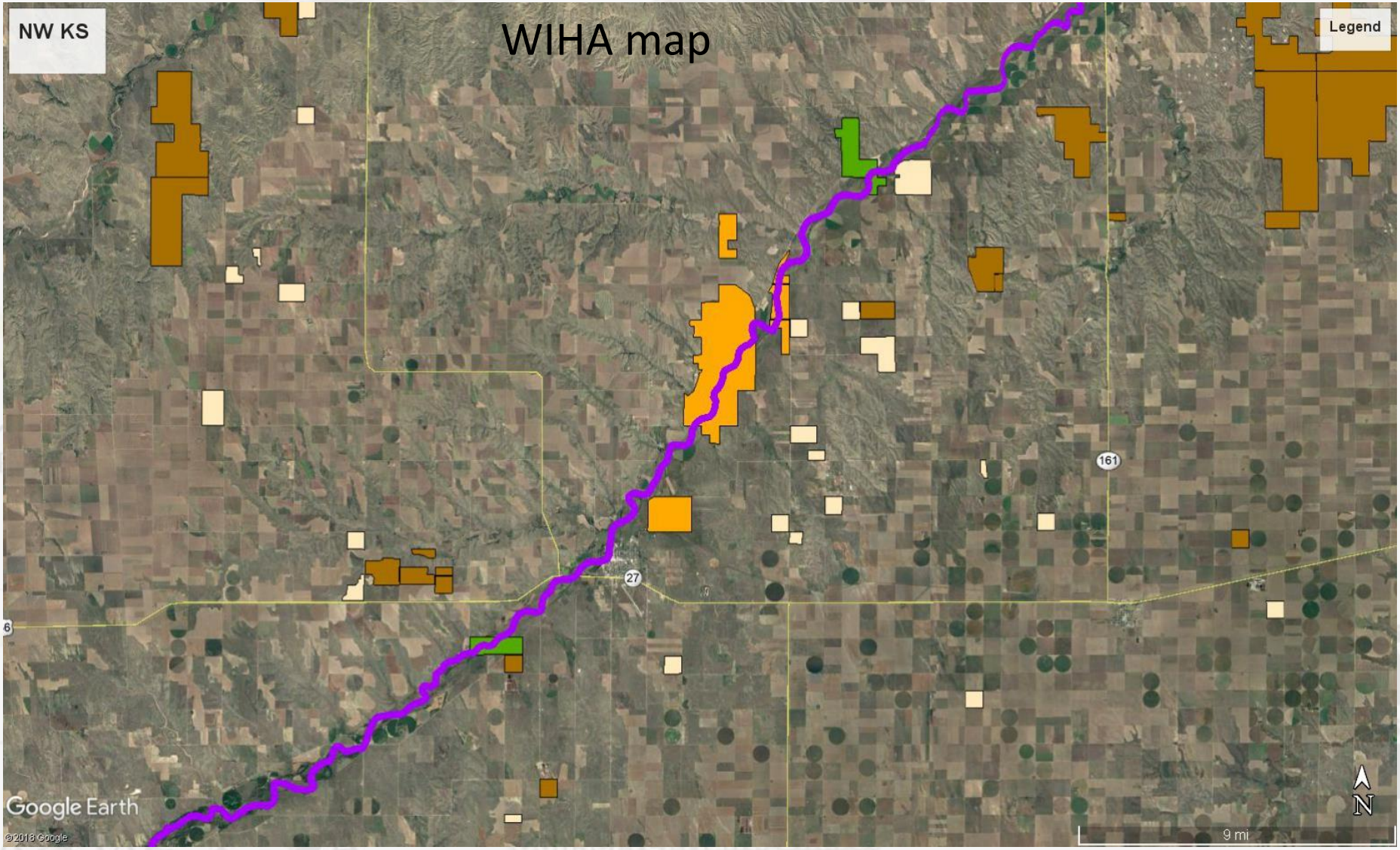

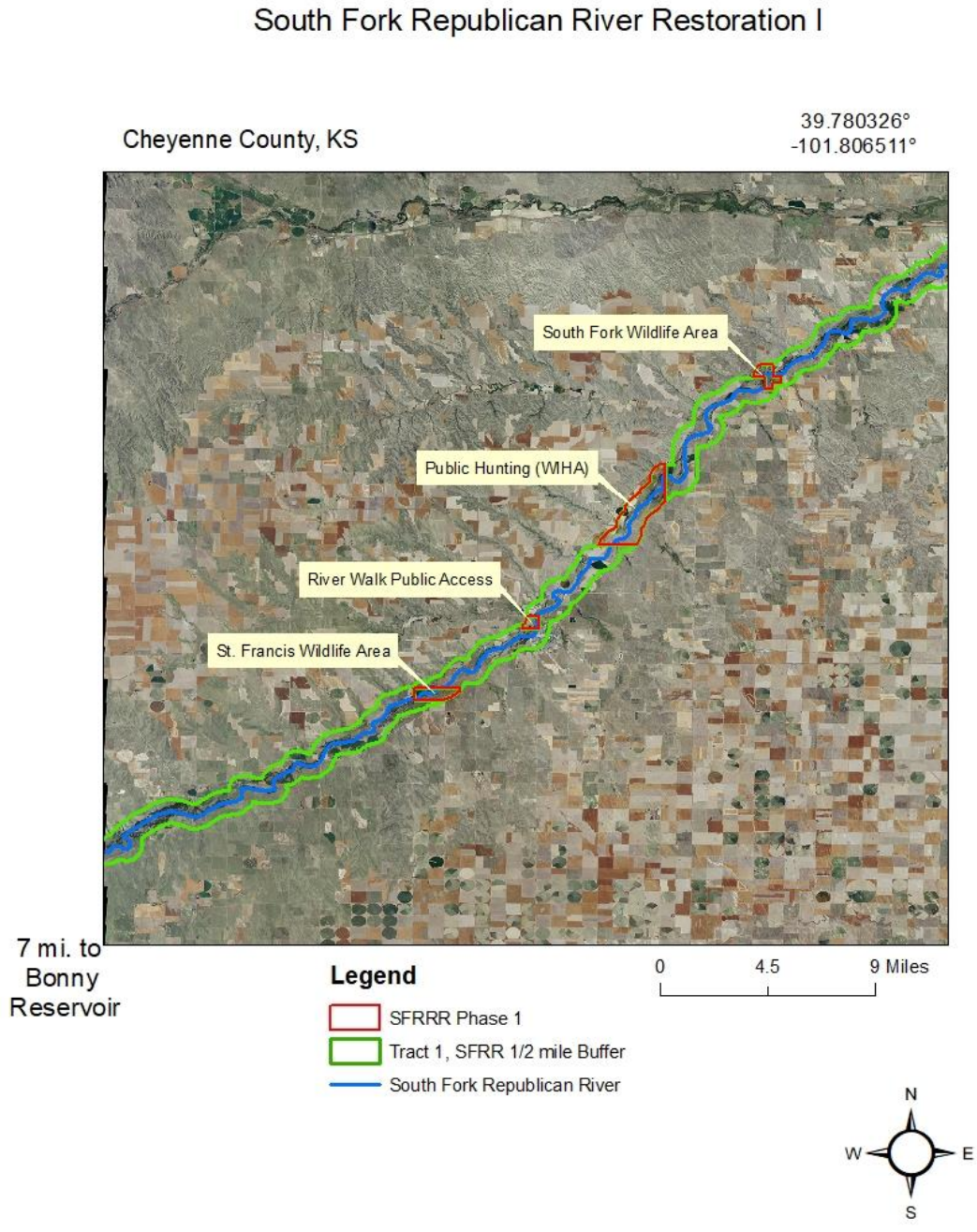

Estimated 4,000 trees removed on WIHA property

South Fork Republican River Restoration II

Problems

- Contractor issues
- Small NAWCA grant not awarded

Future of project

- Follow up management on completed properties
- Applied for Standard NAWCA with DU
- Have match $ from standard NAWCA
- Secure additional funds

Potential Contractors

Twisted Timber KS & CO

Ranchland Development KS

Quality Timber Products KS

Sundstrom

Thanks to all the partners and contributors

- North American Wetlands Conservation Act
- Kansas Department of Agriculture
- Kansas Department of Wildlife, Parks, and Tourism
- Cheyenne County Noxious Weed Department
- Ducks Unlimited
- National Wild Turkey Federation
- Cheyenne County Wildlife, inc.
- Pheasants Forever