

2017



Willow Creek Japanese Knotweed Control AIRR-148-13

Cathy Cooper

Richland County Land Conservation Dept

10/26/2017

Willow Creek Japanese Knotweed Control

Project Scope

The goal of the Willow Creek project was to remove existing stands of Japanese Knotweed and use herbicide to kill the patches over a 5 year period for 100% eradication. It was thought that by mechanically cutting the regrowth twice (to weaken the plants) and spraying when it was blooming in late July-early September, that this would kill the plants.

Management Plan

Adaptive management of cutting, burning of dead stalks and foliar spraying with chemical control agents will be used. A certified aquatic herbicide applicator will be hired to complete the herbicide application. The erodible sites will be seeded to a cool season grass/legume mix approved by DNR for riprap sites. Seeding to natives for the sites would be cost-prohibitive given the size of the sites and the close proximity to pasture and cropland. Natives would be easily overtaken by the cool season varieties given the locations.

Project Plan

2013

Late May/Early June- Cut knotweed plant and pile in place to dry out of flood zone and burn dry stems from last cutting
Mid-July/Early August- Cut regrowth and burn dry stems from last cutting
Late August/Early September- Spray regrowth

2014

Late May/Early June- Cut knotweed plant and pile in place to dry out of flood zone and burn dry stems from last cutting. Erodible sites will be seeded with cool season grasses and legumes which are approved by DNR for riprap sites.
Mid-July/Early August- Cut regrowth and burn dry stems from last cutting
Late August/Early September- Spray regrowth

2015

Late May/Early June- Cut knotweed plant and pile in place to dry out of flood zone and burn dry stems from last cutting. Erodible sites will be seeded with cool season grasses and legumes which are approved by DNR for riprap sites.
Mid-July/Early August- Cut regrowth and burn dry stems from last cutting
Late August/Early September- Spray regrowth

2016

Sites will be monitored and necessary treatment will be completed

2017

Sites will be monitored and necessary treatment will be completed

Project Work Completed

The Richland County Land Conservation (LCD) staff, DNR foresters, and Southwest Badger Invasive Species Specialist (Don Barrett) started in the fall of 2012 by cutting down the dead plant growth and burning it so that next spring we could have access to the live plants.

In May of 2013, the Richland County LCD staff and Don Barrett cut the plants and left the plants lay at the junction of Jaquish Hollow Road and State Highway 58, on the DNR property off of Smyth Hollow Road. In mid-June we cut along Willow Creek between County Highway D and Doolittle Road. These sites were again cut in mid-July and mid-August.

The sites were sprayed with Habitat and Milestone in October, except the DNR property as we did not have permission for the chemicals there.

In 2014, the same sites were monitored. The sites on the Jaquish Hollow site and the DNR site has some regrowth along the road that we cut in mid-May. There was still a lot of regrowth in the section between Rustic View Road and County Highway D but it wasn't as vigorous. The Richland County LCD staff and Don Barrett again cut the regrowth in this section in mid-June and again in late July. The sites were again sprayed in mid- August with either Habitat or Milestone.

In 2015, we didn't do anything at Jaquish Hollow as there were no plants at the site. There were a few plants on the DNR site that we cut. The Richland County LCD staff cut the sites between County D and Rustic View Road once in mid-May. The sites in this area were not as thick and the plants were smaller not as vigorous. This area was sprayed in late September.

In 2016, there was weakened regrowth. The stands were not as numerous nor were they as vigorous. There was still no regrowth at Jaquish Hollow and very few plants on the DNR property. Nothing was cut and no spraying was done in August due to the rain and flooding that the county experienced. The grant was extended until 2017.

In August 2017, the sites were monitored. No regrowth at Jaquish Hollow, very few small plants on the DNR property. There were still some sites between Rustic View Road and County Highway D, but the sites were fewer in number and weakened plants. No cutting was done. The remaining sites were sprayed with Habitat. Originally, we were going to be seeding in the sites as there was no grass in these sites heavily colonized with the Knotweed. There is a lot of grass cover that has come in under the Japanese Knotweed as the colonies have gotten thinner. To seed the area would take killing the grass that has come in and opening up the sites, exposing it to erosion. We would rather not do that as it might give any rhizomes a chance to recolonize the sites.

Results

We won't know for sure until spring of 2018 how much of the Japanese Knotweed has been eradicated when we look for regrowth. We know we have not achieved 100% eradication, but have greatly weakened it. The plant sprouts by rhizomes which makes it difficult to eradicate. The methods we have used seem to work fairly well. It is a process that will probably take more years than is in the grant to eradicate Japanese Knotweed. From what we have seen in the project, it takes a combination of mechanical work (cutting the plants off at least twice during the growing season) and chemically treating it during the blooming stage. The cutting seems to weaken the plants and the rhizomes so that the spray has a bigger impact.

Site #1



2011 before project started



Fall 2012 before project started



Summer 2015



Fall 2017, no Knotweed, just grass

Site #2



2011



Summer 2012 before project started



Summer 2015



Fall 2017, a few Knotweed near the rock. Sprayed in September