

WEBSTER COUNTY

INTEGRATED

ROADSIDE

VEGETATION

MANAGEMENT

PLAN



ORIGINAL PLAN 1996
REVISED 2020

WEBSTER COUNTY IRVM PLAN

Updated July 2020

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EXECUTIVE SUMMARY / PLAN CONTRIBUTORS

The Webster County IRVM Program was started in 1990 under the Webster County Conservation Department. Over the past 30 years Webster County's IRVM Department has planted miles of native roadside prairies. The program is also in charge of managing the spraying of the roadsides in Webster County. The IRVM Department has gone through numerous staffing changes over the years but has always had a great working relationship with other organizations in Webster County throughout the years.

The Webster County IRVM Program is overseen by the Conservation Department Director and the Operations Supervisor. The Operations Supervisor is in charge of managing the IRVM Department's budget. The IRVM/ Vegetation Specialist/Weed Commissioner is responsible for the scheduling and "hands on" work for projects. This position is in charge of weed complaints, seeding projects and the spraying of noxious weeds in the roadsides. The Park/Natural Resource Technician assists with various IRVM and habitat projects.

The Conservation and IRVM Departments are overseen by the Conservation Board which is made up of 5 members. This board approves the Department Budgets, staff hiring, large purchases, etc. Once an agenda item is approved it may need approval from the County Supervisors as well such as a final budget. The County Supervisors also annually appoint the County's Weed Commissioner.


The IRVM programs throughout Iowa are an excellent benefit to our local ecosystem. In a time where any amount of habitat is crucial, our roadsides make up a large piece of the public land in Iowa and can provide a lot of quality wildlife habitat. These same roadsides when planted to native prairies also provide excellent water filtration, erosion control and provide an aesthetic benefit. Just in Webster County alone, we have roughly 1,200 miles of roadways (2,400 miles of roadsides), this amount of roadside equates to around **7,000 acres** of land that can be managed to improve our ecosystem. This amount of land can really make a difference and in some areas of the state this is just about the only habitat left that makes up a large enough portion to really provide a benefit.

A special thank-you goes out to the following list of contributors that had an important impact on the development of this IRVM plan:

| | |
|-----------------------|--|
| Matt Cosgrove | Director (Webster County Conservation) |
| Sam Adams | District Conservationist (Natural Resource Conservation Service) |
| Norm Lundquist | Pheasants Forever and Private Landowner |
| Randy Will | Webster County Engineer |

JURISDICTIONAL APPROVAL

The names listed below approve of the revised Webster County Integrated Roadside Vegetation Plan.




Mark Campbell
County Supervisor Chair

7/21/20
Date



Nick Carlson
County Conservation Board Chair

7-14-20
Date



Jamie Juhl
County Engineer

7-21-2020
Date



Andy Stanberg
County Roadside Mgr. / Weed Commissioner

7/21/2020
Date

IOWA CODE

Section 314.22 (Integrated Roadside Vegetation Management)

1. **Objectives.** It is declared to be in the general public welfare of Iowa and a highway purpose for the vegetation of Iowa's roadsides to be preserved, planted, and maintained to be safe, visually interesting, ecologically integrated, and useful for many purposes. The state department of transportation shall provide an integrated roadside vegetation management plan and program which shall be designed to accomplish all of the following:
 - a. Maintain a safe travel environment.
 - b. Serve a variety of public purposes including erosion control, wildlife habitat, climate control, scenic qualities, weed control, utility easements, recreation uses, and sustenance of water quality.
 - c. Be based on a systematic assessment of conditions existing in roadsides, preservation of valuable vegetation and habitats in the area, and the adoption of a comprehensive plan and strategies for cost-effective maintenance and vegetation planting.
 - d. Emphasize the establishment of adaptable and long-lived vegetation, often native species, matched to the unique environment found in and adjacent to the roadside.
 - e. Incorporate integrated management practices for the long-term control of damaging insect populations, weeds, and invader plant species.
 - f. Build upon a public education program allowing input from adjacent landowners and the general public.
 - g. Accelerate efforts toward increasing and expanding the effectiveness of plantings to reduce wind-induced and water-induced soil erosion and to increase deposition of snow in desired locations.
 - h. Incorporate integrated roadside vegetation management with other state agency planning and program activities including the recreation trails program, scenic highways, open space, and tourism development efforts. Agencies should annually report their progress in this area to the general assembly.

317.1A Noxious weeds.

1. The following weeds are hereby declared to be noxious and shall be divided into two classes, as follows:

a. Primary noxious weeds, which shall include:

- (1) Quack grass (*Elymus repens*).
- (2) Perennial sow thistle (*Sonchus arvensis*).
- (3) Canada thistle (*Cirsium arvense*).
- (4) Bull thistle (*Cirsium vulgare*).
- (5) European morning glory or field bindweed (*Convolvulus arvensis*).
- (6) Horse nettle (*Solanum carolinense*).
- (7) Leafy spurge (*Euphorbia esula*).
- (8) Perennial pepper-grass (*Cardaria draba*).
- (9) Russian knapweed (*Acroptilon repens*).
- (10) Buckthorn (*Rhamnus* spp., not to include *Frangula alnus*, syn. *Rhamnus frangula*).
- (11) All other species of thistles belonging in the genera of *Cirsium* and *Carduus*.
- (12) Palmer amaranth (*Amaranthus palmeri*).

b. Secondary noxious weeds, which shall include:

- (1) Butterprint (*Abutilon theophrasti*) annual.
- (2) Cocklebur (*Xanthium strumarium*) annual.
- (3) Wild mustard (*Sinapis arvensis*) annual.
- (4) Wild carrot (*Daucus carota*) biennial.
- (5) Buckhorn (*Plantago lanceolata*) perennial.
- (6) Sheep sorrel (*Rumex acetosella*) perennial.
- (7) Sour dock (*Rumex crispus*) perennial.
- (8) Smooth dock (*Rumex altissimus*) perennial.
- (9) Poison hemlock (*Conium maculatum*).
- (10) Multiflora rose (*Rosa multiflora*).
- (11) Wild sunflower (wild strain of *Helianthus annuus* L.) annual.
- (12) Puncture vine (*Tribulus terrestris*) annual.
- (13) Teasel (*Dipsacus* spp.) biennial.
- (14) Shattercane (*Sorghum bicolor*) annual.

2. a. The multiflora rose (*Rosa multiflora*) shall not be considered a secondary noxious weed when cultivated for or used as understock for cultivated roses or as ornamental shrubs in gardens, or in any county whose board of supervisors has by resolution declared it not to be a noxious weed.

b. Shattercane (*Sorghum bicolor*) shall not be considered a secondary noxious weed when cultivated or in any county whose board of supervisors has by resolution declared it not to be a noxious weed.

3. A plant is also declared to be a noxious weed as provided in rules adopted by the department pursuant to [chapter 17A](#). The department's determination shall be based on a finding that the plant is competitive, persistent, or pernicious, and may directly or indirectly injure or cause damage to crops, other useful plants, livestock, or poultry; irrigation, land, public roads, fish or wildlife resources; or the public health.

21—58.4(317) Noxious weed lists.

58.4(1) Class A noxious weeds for eradication. The following weed is included:

a. Palmer amaranth (*Amaranthus palmeri*).

b. Reserved.

58.4(2) Class B noxious weeds for control. The following weeds are included:

a. Canada thistle (*Cirsium arvense*).

b. Teasel (*Dipsacus* spp.) biennial.

c. Leafy spurge (*Euphorbia esula*).

d. Bull thistle (*Cirsium vulgare*).

e. Multiflora rose (*Rosa multiflora*).

f. European morning glory or field bindweed (*Convolvulus arvensis*).

g. All other species of thistles belonging in the genus of *Carduus*.

[ARC 4260C, IAB 1/30/19, effective 3/6/19]

These rules are intended to implement Iowa Code sections 317.1C and 317.25.

Section 317.3 WEED COMMISSIONER – STANDARDS FOR NOXIOUS WEED CONTROL.

The board of supervisors of each county may annually appoint a county weed commissioner who may be a person otherwise employed by the county and who passes minimum standards established by the department of agriculture and land stewardship for noxious weed identification and the recognized methods for noxious weed control and elimination. The county weed commissioner's appointment shall be effective as of March 1 and shall continue for a term at the discretion of the board of supervisors unless the commissioner is removed from office as provided for by law. The county weed commissioner may, with the approval of the board of supervisors, require that commercial applicators and their appropriate employees pass the same standards for noxious weed identification as established by the department of agriculture and land stewardship. The name and address of the person appointed as county weed commissioner shall be certified to the county auditor and to the secretary of agriculture within ten days of the appointment. The board of supervisors shall fix the compensation of the county weed commissioner and deputies. In addition to compensation, the commissioner and deputies shall be paid their necessary travel expenses. At the discretion of the board of supervisors, the weed commissioner shall attend a seminar or school conducted or approved by the department of agriculture and land stewardship relating to the identification, control, and elimination of noxious weeds.

The board of supervisors shall prescribe the time of year the weed commissioner shall perform the powers and duties of county weed commissioner under this chapter which may be during that time of year when noxious weeds can effectively be killed. Compensation shall be for the period of actual work only although a weed commissioner assigned other duties not related to weed eradication may receive an annual salary. The board of supervisors shall likewise determine whether employment shall be by hour, day or month and the rate of pay for the employment time.

Section 314.17 Mowing on interstates, primary highways, and secondary roads

Mowing roadside vegetation on the rights-of-way or medians on any primary highway, interstate highway, or secondary road prior to July 15 is prohibited, except as follows:

1. Within two hundred yards of an inhabited dwelling.
2. On rights-of-ways within one mile of the corporate limits of a city.
3. To promote native species of vegetation or other long-lived and adaptable vegetation.
4. To establish control of damaging insect populations, noxious weeds and invasive plant species.
5. For visibility and safety reasons.
6. Within rest areas, weigh stations, and wayside parks.
7. Within fifty feet of a drainage tile or tile intake.
8. For access to a mailbox or for other accessibility purposes.
9. On rights-of-way adjacent to agricultural demonstration or research plots.

LOCAL LAWS AND REGULATIONS

Webster County Weed Ordinance

NOTICE

2020 Weed Resolution

WHEREAS noxious weeds, if not controlled, would be a major problem in Webster County.

WHEREAS section 317.13 of the Code of Iowa grants the Board of Supervisors the authority, upon the recommendation of the County Weed Commissioner, to yearly set out by resolution a program of weed control for that year.

WHEREAS pursuant to section 317.14, notice of the program must be published.

WHEREAS the Webster County Weed Commissioner has recommended the following program for weed control in conformance with and to the provisions of Chapter 317 of the Code of Iowa.

BE IT HEREBY RESOLVED by the Board of Supervisors for Webster County, Iowa: That pursuant to the provisions of Chapter 317, 2018 Code of Iowa, It is hereby ordered:

1. That each owner and each person in the possession or control of any land in Webster County shall control on that land all noxious weeds as defined below at such time and such manner as shall prevent said weeds from blooming or coming to maturity. Noxious weeds shall be cut, burned, or otherwise destroyed as often as necessary to prevent seed production. Furthermore each owner and each person in possession or control of any land in Webster County shall keep that land free from the growth of any type of weed, which would render the streets or highways adjoining said land unsafe for public travel. Such Weeds shall be cut or otherwise controlled as often as necessary to keep the streets or highways adjoining said land safe for public travel.

CLASS A NOXIOUS WEEDS FOR ERADICATION: Palmer amaranth (*Amaranthus palmeri*).

CLASS B NOXIOUS WEEDS FOR CONTROL: Canada thistle (*Cirsium arvense*), Teasel (*Dipsacus spp.*) biennial, Leafy Spurge (*Euphorbia esula*), Bull thistle (*Cirsium vulgare*), Multiflora rose (*Rosa multiflora*), European morning glory or field bindweed (*Convolvulus arvensis*), All other species of thistles belonging to genus of *Carduus*.

2. That each owner and each person in the possession or control of any lands in Webster County infested with noxious weeds shall adopt a program of Weed control as prescribed by the Weed Commissioner, which shall be designed to immediately control and keep under control such infections of noxious weeds.
3. That if owners or persons in control of any lands in Webster County shall fail to comply with the foregoing orders, the Weed Commissioner shall cause this to be done and the expense of such work, including the costs of serving notice and other costs, if any shall be assessed against the real estate upon which weeds were controlled.
4. That the county auditor be and hereby is directed to cause notice of the making and entering of the foregoing Order to be published by one publication in each of the official newspapers of the county.

Local Regulations cont.

Roadside Brush and Tree Control Program

Webster County has a contract for a long-term brush and tree control program. The program coordinates a cutting and spraying program on a four-year rotation, whereby the smaller brush & trees are spot sprayed and the larger brush & trees are cut. The spraying is completed by a contractor, who will spot spray one quarter of the county each year from east to west, starting with the northern most one quarter and proceeding south. During the same time, the Secondary Road workers will cut large trees. The Roadside Manager and staff will also address problem areas as they arise. After we have completed a four-year cycle, the entire county will have been cut and spot sprayed once and the brush & tree control program should become more of an easily managed maintenance program. There should be a lot less brush & trees to cut and spray, but cutting and spraying will still continue in the same manner. The contract brush spraying is performed in early to mid-August.

Roadside Spraying for Noxious Weeds

Webster County has a contractor for roadside spraying of noxious weeds and to target Canada thistle and Leafy Spurge. This spraying program is on a two-year rotation with the north half of the county being done one year and the south half the next. This rotation will continue until change is needed. The contract noxious weed spraying is typically performed in late June to early July depending on the weather.

Both programs are being administered by Andy Stanberg (Roadside Manager and Weed Commissioner) from the Integrated Roadside Vegetation Management Program.

Roadside Mowing

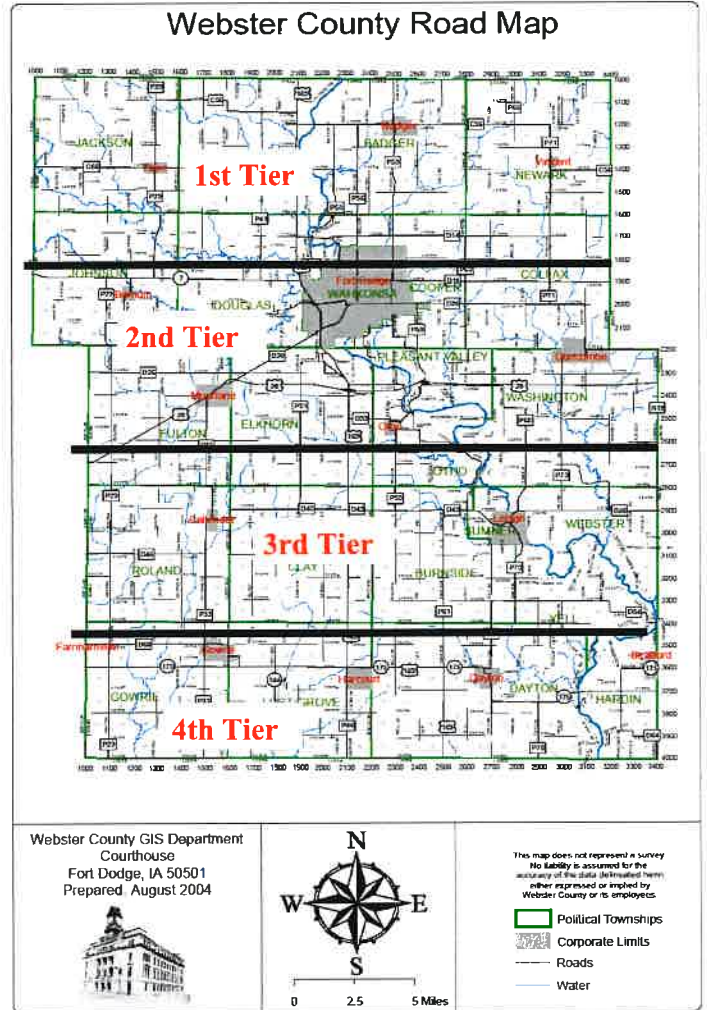
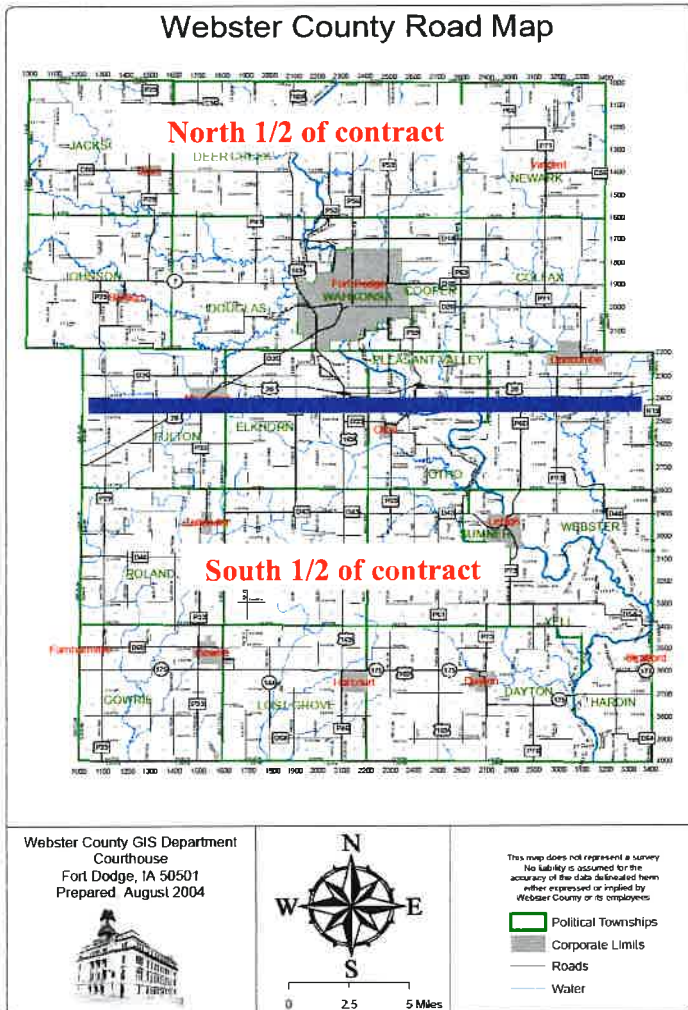
Current Mowing Practice:

- Paved Roads – Road workers mow one swath between Memorial Day and Independence Day and mow two swaths late summer/early fall. Only one swath is mowed early to promote and protect habitat nesting.
- Granular Roads – Road workers mow one swath at selected areas in late fall as determined by the motor grader operators. This is primarily done to reduce drifting from the early winter snowstorms.

Contract Spraying Maps

Noxious Weed Map

Brush Map



PROGRAM ORGANIZATIONAL STRUCTURE

PROGRAM MISSION

It is the mission of Webster County's Integrated Roadside Vegetation Management Program to provide a roadside, with a sustainable method of controlling erosion and sediment delivery, the ability to improve water quality, provide critical habitat for wildlife and to offer a safe, visible and aesthetically pleasing roadside for travelers.

PROGRAM GOALS

- Provide a self sustainable roadside requiring minimal maintenance
- To improve water quality by reducing water runoff
- Increase quality wildlife habitat in roadsides
- Decrease amount of noxious / invasive weeds
- To increase ROW safety by removing trees / brush

EDUCATION AND OUTREACH

The program manager talks to numerous local landowners while planting and spraying the roadsides. The landowners are educated about IRVM and what herbicides should be used for weed management along with the benefits of native plantings. The IRVM department has brochures that can be picked up at Kennedy Park which explains the IRVM program. There is also a page dedicated to the IRVM program on Webster County's Conservation website.

The IRVM department also partners with local Pheasants Forever (PF), Natural Resources Conservation Service (NRCS) and the Iowa Department of Natural Resources (DNR) organizations for private lands work.

INVENTORY

NATURAL RESOURCES

Webster County currently has 66 miles of Roadsides (33 road miles) planted into native prairie species. These areas were planted at various times throughout the past 30 years by 5 different Roadside Managers. There has been annual spot spraying along these roadsides along with brush control and prescribed burning. The IRVM Department has also planted significant acres of native prairie in the Conservation Department's wildlife areas and parks.

EQUIPMENT

The list below represents the primary equipment that the Webster County IRVM Department has in inventory at present time.

| <u>IRVM Equipment</u> | <u>Condition</u> |
|---|------------------|
| 2019 Vicon Broadcast Seeder | Good |
| 2019 Frontier Conservation Seeder | Good |
| 2018 Stihl MS 391 Chainsaw | Good |
| 2018 Brush Buster Rotary Mower | Good |
| 2018 JD 331g Track Loader | Good |
| 2017 Dodge 2500 4x4 Truck | Good |
| 2017 John Deere Gator 825i | Good |
| 2017 Dump Trailer | Good |
| 2015 Fire PPE | Good |
| 2015 Stihl 391 Chainsaw | Good |
| 2015 Black Diamond Gooseneck Trailer | Good |
| 2015 UTV Fire Unit | Good |
| 2013 Farm King Rotary Mower | Fair |
| 2012 JD Mulching Forestry Skid Loader Attachment | Good |
| 2012 Ford F-350 4x4 | Good |
| 2011 Stihl FS90R Weed eater | Good |
| 2011 Stihl MS 460 Chainsaw | Good |
| 2010 Nomex Clothing / Fire Gear (LRTF - \$733.00) | Good |
| 2009 15 gallon ATV Spreader | Good |
| 2008 Brillion 10' Cultipacker (LRTF - \$1,950.00) | Good |
| 2005 Storage Facility (LRTF - \$11,500.00) | Good |

| | |
|---|------|
| 2001 Truax FLX812-RD Drill | Good |
| 2001 JD 4600 Tractor | Good |
| 2000 Truax Seed Slinger (LRTF - \$440.00) | Good |
| 2000 Ford F-350 (spray truck) | Fair |
| 2000 John Deere 4700 Tractor | Good |
| 1999 Finn T60 Hydroseeder | Good |
| 1993 Tailgate Mulcher (LRTF - \$3,518.00) | Fair |
| 1992 Smeal Skid Fire Pumper | Fair |

Over the past 28 years Webster County Conservation has received over \$50,000 from the Living Roadway Trust Fund for helping purchase needed equipment. This number doesn't represent the thousands of dollars spent on seeding projects either.

SHARED INVENTORY / STAFFING

The IRVM Department also works closely with the County Conservation and Secondary Road Departments with sharing equipment when needed. The departments also help each other with staff if needed, such as a driver for the hydro seeder or flaggers for traffic safety when seeding a roadside. If the road crew is installing a new field approach or performing another type of small project they will typically just get seed from the IRVM Department and do the seeding themselves which really helps out. The Engineering Department also helps out by making maps and letting the IRVM Department know about upcoming seeding projects so seed and mulch can be ordered ahead of time.

PROGRAM OPERATIONS

ADMINISTRATION

The Webster County IRVM Department currently has a Roadside Manager that manages the program. This position is responsible for overseeing and providing the seeding, spraying and general maintenance of the county's right-of-ways. The program is part of the Webster County Conservation Department which is ultimately overseen by the Conservation Director and the Conservation Board. There is also a Natural Resource Technician that is shared 50/50 between the IRVM program and the Conservation Department. Conservation and Secondary Roads staff provides assistance when needed. The overall program and budget is overseen by the Operations Supervisor.

VEGETATION ESTABLISHMENT

The majority of planting the IRVM Department does is to provide ground cover following a road or bridge project. The area is seeded with warm-season natives or cool-season grasses depending on the application. For steep and highly-erodible areas such as bridge replacements the department uses a hydro-seeder with cool season grasses to establish cover quickly and hold the soil in place. On areas such as updated roads where there is a flatter right-of-way, the department will use native grasses in the bottom and back-slope of the right-of-way to filter water, control flooding and reduce erosion. This seeding is usually performed with a native grass drill. There are two native seed mixes Webster County usually seeds. A diversity mix which contains a high amount of forbs seeds, this is used in areas that will be seen easily from the roadway. The other is a ditch clean-out mix which is used in smaller areas that just need native establishment.

Diversity Seed Mix

Diversity Mix, 10 Acres

Webster County

| Group I – Grasses | | Bags | lb/ bag | Seeds/ft ² | Habitat |
|--|---|------|---------|-----------------------|--------------|
| _____ | Big bluestem <i>Andropogon gerardii</i> | 1 | 15 | 5.5 | Mesic |
| _____ | Sideoats grama <i>Bouteloua curtipendula</i> | 1 | 25 | 7.9 | Dry |
| _____ | Canada wildrye <i>Elymus canadensis</i> | 1 | 20 | 4.5 | Mesic to Dry |
| _____ | Switchgrass <i>Panicum virgatum</i> | 1 | 5 | 2.9 | Mesic |
| _____ | Little bluestem <i>Schizachyrium scoparium</i> | 1 | 25 | 14 | Dry to Mesic |
| _____ | Indiangrass <i>Sorghastrum nutans</i> | 1 | 15 | 6.3 | Mesic to Dry |
| _____ | Rough dropseed <i>Sporobolus asper</i> | 1 | 10 | 11 | Dry |
| _____ | Prairie sedge <i>Carex bicknellii</i> | 1 | 0.35 | .02 | Mesic |
| Total grass seeds per square foot | | | | 52 | |
| _____ | Partridge pea <i>Chamaecrista fasciculata</i> | 1 | 20 lb | 1.5 | |
| _____ | Prairie Blazingstar <i>Liatris pycnostachya</i> | 1 | 5 lb | 1.5 | |

Black bag, Red Tie

| Group II – Forbs | | Bags | Oz/ bag | Seeds/ft ² |
|--|--|------|---------|-----------------------|
| _____ | Lead plant <i>Amorpha canescens</i> | 1 | 8 | 0.33 |
| _____ | Butterfly milkweed <i>Asclepias tuberosa</i> | 1 | 28 | 0.22 |
| _____ | Canada milkvetch <i>Astragalus Canadensis</i> | 1 | 16 | 0.69 |
| _____ | White wild indigo <i>Baptisia lactea</i> | 1 | 20 | 0.08 |
| _____ | Purple prairie clover <i>Dalea purpurea</i> | 1 | 44 | 1.9 |
| _____ | Showy tick trefoil <i>Desmodium canadense</i> | 1 | 16 | 0.2 |
| _____ | Pale purple coneflower <i>Echinacea pallida</i> | 1 | 54 | 0.66 |
| _____ | Rattlesnake master <i>Eryngium yuccifolium</i> | 1 | 32 | 0.55 |
| _____ | Ox-eye sunflower <i>Heliopsis helianthoides</i> | 1 | 60 | 0.86 |
| _____ | Roundheaded bushclover <i>Lespedeza capitata</i> | 1 | 24 | 0.5 |
| _____ | Rough blazingstar <i>Liatris aspera</i> | 1 | 8 | 0.28 |
| _____ | Wild bergamot <i>Monarda fistulosa</i> | 1 | 24 | 4.1 |
| _____ | Stiff goldenrod <i>Oligoneuron rigidum</i> | 1 | 10 | 0.94 |
| _____ | Foxglove penstemon <i>Penstemon digitalis</i> | 1 | 24 | 7.1 |
| _____ | Large flowered penstemon <i>Penstemon grandiflorus</i> | 1 | 20 | 0.64 |
| _____ | Yellow coneflower <i>Ratibida pinnata</i> | 1 | 50 | 3.44 |
| _____ | Black-eyed Susan <i>Rudbeckia hirta</i> | 1 | 48 | 10 |
| _____ | Compass plant <i>Silphium laciniatum</i> | 1 | 16 | 0.02 |
| _____ | New England aster <i>Symphotrichum novae-angliae</i> | 1 | 24 | 3.7 |
| _____ | Ohio spiderwort <i>Tradescantia ohioensis</i> | 1 | 34 | 0.62 |
| _____ | Hoary vervain <i>Verbena stricta</i> | 1 | 20 | 1.3 |
| _____ | Golden Alexanders <i>Zizia aurea</i> | 1 | 20 | 0.5 |
| Total forb seeds per square foot | | | | 40 |
| Wet species | | Bags | Oz/ bag | Seeds/ft ² |
| _____ | Swamp milkweed <i>Asclepias incarnata</i> | 1 | 36 | 0.31 |
| _____ | Brown fox sedge <i>Carex vulpinoidea</i> | 1 | 32 | 7.3 |
| _____ | Sneezeweed <i>Helenium autumnale</i> | 1 | 16 | 4.8 |
| _____ | Dark green bulrush <i>Scirpus atrovirens</i> | 1 | 32 | 34 |
| Total wet species seeds per square foot | | | | 46 |

These last 4 species will grow best in a wetter habitat, a location with more soil moisture such as the ditch bottom. The last 3 are very small seeds that won't grow if they get buried. One way to plant them would be to mix the seed in a bucket of sand and scatter it by hand on the soil surface towards the bottom of the ditch.

Ditch Clean-Out Mix

Ditch clean mix, 20 Acres

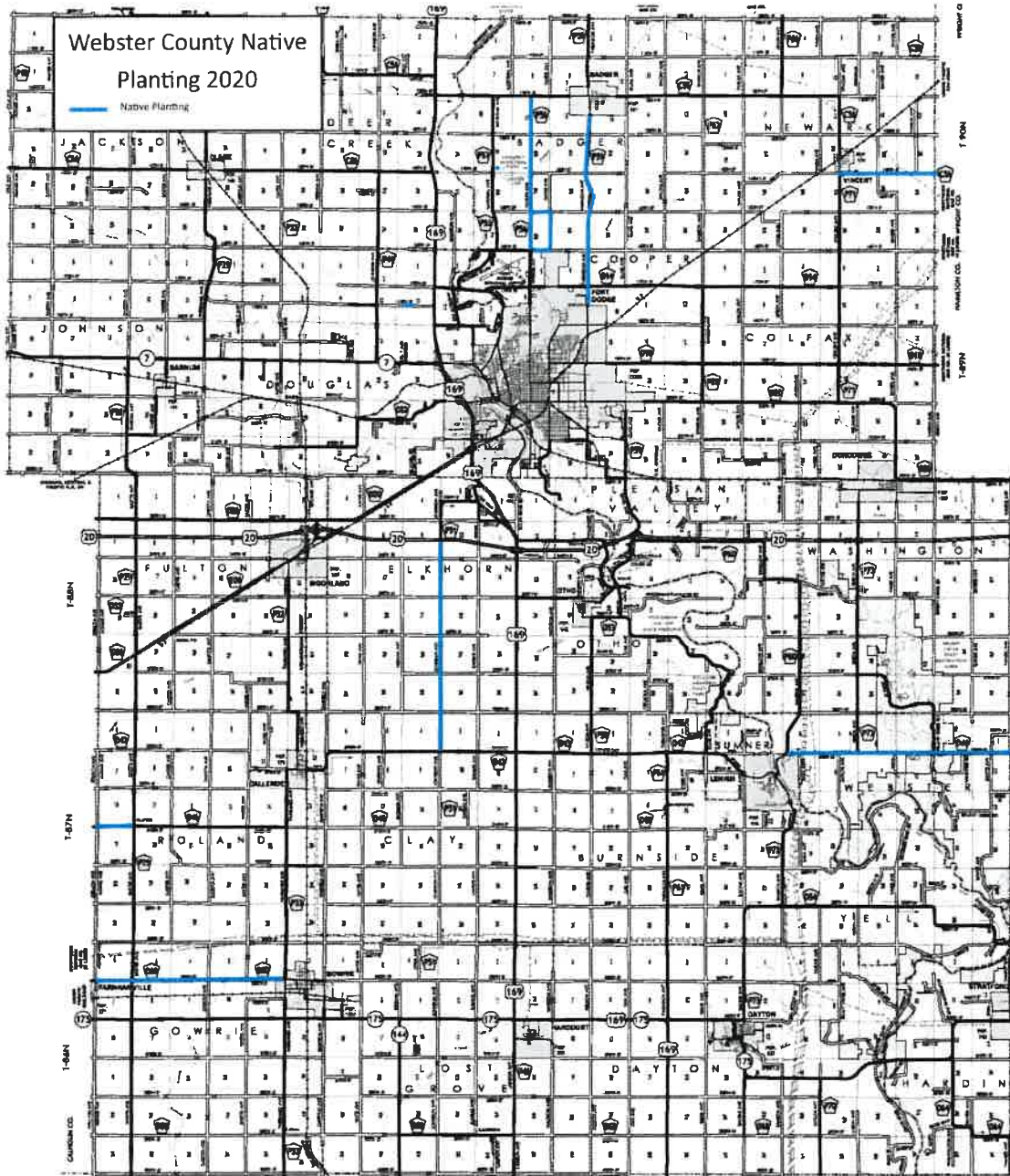
Webster County

| Group I – Grasses | Bags | lb/bag | Seeds/ft ² | Habitat |
|---|------|--------|-----------------------|--------------|
| _____ Big bluestem <i>Andropogon gerardii</i> | 2 | 15 | 5.5 | Mesic |
| _____ Sideoats grama <i>Bouteloua curtipendula</i> | 2 | 25 | 7.9 | Dry |
| _____ Canada wildrye <i>Elymus canadensis</i> | 2 | 20 | 4.5 | Mesic to Dry |
| _____ Switchgrass <i>Panicum virgatum</i> | 2 | 5 | 2.9 | Mesic |
| _____ Little bluestem <i>Schizachyrium scoparium</i> | 2 | 25 | 14 | Dry to Mesic |
| _____ Indiangrass <i>Sorghastrum nutans</i> | 2 | 15 | 6.3 | Mesic to Dry |
| _____ Rough dropseed <i>Sporobolus asper</i> | 2 | 10 | 11 | Dry |
| Total grass seeds per square foot | | | 52 | |
| _____ Partridge pea <i>Chamaecrista fasciculata</i> | 2 | 20 lb | 1.5 | |

2 Black bags, Blue ties (each containing)

| Group II – Forbs | Bags | Oz/bag | Seeds/ft ² |
|--|------|--------|-----------------------|
| Swamp milkweed <i>Asclepias incarnata</i> | 1 | 34 | 0.37 |
| Purple prairie clover <i>Dalea purpurea</i> | 1 | 44 | 1.9 |
| Pale purple coneflower <i>Echinacea pallida</i> | 1 | 52 | 0.63 |
| Rattlesnake master <i>Eryngium yuccifolium</i> | 1 | 30 | 0.5 |
| Ox-eye sunflower <i>Heliopsis helianthoides</i> | 1 | 60 | 0.87 |
| Yellow coneflower <i>Ratibida pinnata</i> | 1 | 50 | 3.44 |
| Black-eyed Susan <i>Rudbeckia hirta</i> | 1 | 48 | 10 |
| Forb seeds per square foot | | | 18 |

Webster County Native Seeding Map



CHEMICAL CONTROL OF WEEDS

Webster County currently has a contractor hired to spray noxious weeds on a two-year rotation. The contract spraying is open to companies that want to bid on the project. The county is split into North and South halves in which each half gets sprayed every other year. There are roughly 560 roadside miles sprayed in the North ½ of the county and 620 miles in the South ½. We have used the same contractor for both noxious weed spraying and brush spraying for numerous years. We have had a great working relationship with them and believe the plan we have in place is working well. The Roadside Manager will do the spot spraying and problem areas in the portion of the county that the contractor is not working in that year. The Roadside Manager, who is also the acting Weed Commissioner, will handle all weed complaints throughout the county.

BRUSH / TREE CONTROL

Webster County currently has a contractor hired to spray brush by a foliar application on a four-year rotation. The county is divided up into 4 horizontal tiers in which one tier is sprayed each year. The Secondary Road Department works two tiers ahead of the contractor cutting down larger brush and trees. When the contractor arrives at that site two years later the re-growth is the proper size to receive a foliar application. If the trees are really large they will get chipped and the stumps will receive a cut-stump and herbicide treatment. Once this entire rotation is done a few times most of the species should be small enough in size to just receive a foliar application.

MECHANICAL CONTROL

The IRVM Department utilizes a skid loader mounted forestry mower and rotary brush mower. In areas of thick or large brush this equipment can be brought in to remove the brush and then once the re-growth begins the area will receive a foliar herbicide treatment. The IRVM Department also owns a 3-point rotary mower which is used to mow new native plantings for weed control as well as sensitive right-of-way areas in need of weed control, such as vineyards and apiaries.



PRESCRIBED BURNING

Prescribed burning is done to stimulate native plant growth and set back invasive weed and woody species. The Webster County IRVM Department burns native planted areas when they are 3-4 years old and then every few years after that to help with plant diversity and weed control.

The IRVM and Conservation staff have their S-130 and S-190 prescribed burning certificates. The departments work closely together with the prescribed burning of county areas and right of ways. Every spring and fall the IRVM Manager puts a list together of areas to be burned.



EROSION CONTROL

The IRVM Department uses various tools to help with erosion, such as erosion blankets in highly erodible areas along with using the department's hydro-seeder to seed and mulch steeper slopes. Proper seeding techniques are used along with silt fence and cover crops to reduce erosion and establishment time. Typically the hydro-seeder is used at a rate of 160 pounds of cool-season seed/acre as well as 1600 pounds of mulch/acre in highly erodible areas. The department also has a tailgate mulching unit that will lay down a layer of straw over a seeding area that was broadcasted or drilled.

WEBSTER COUNTY IRVM ANNUAL CALENDAR

January – February

- Service Equipment
- Order Seed
- Write Grants
- Update and Organize Records / Folders
- Develop informational tools for IRVM
- Get Weed Commissioners Acknowledgement Letter signed and turned into State Weed Commissioner

March – April

- Work on Forest Reserves (due by April 1st)
- Check Kestrel Boxes / Update them for next season
- Prescribed burning
- Order Chemical (weed complaints and bare ground)
- Pick up LRTF seed
- Get food plots ready to seed
- Get noxious weed and brush spraying bids approved

May

- Send Weed Resolution Release to newspapers (also State WC)
- Send Brush and Noxious Weed Release to newspapers
- Rent drill and seed CRP
- Seed ditch clean-outs
- Submit LRTF grant by the end of the month
- Seed Food Plots
- Spray parking lots and camping pads
- Approve noxious weed and brush spraying bids
- Spray Guardrails along hard surfaced roads
- Seed bridge / culvert projects

June

- Spray weed complaints
- Seed ditch clean-outs
- Seed bridge / culvert projects
- Contracted noxious weed spraying starts
- Spray weed complaint areas from previous year

July

- Work on Annual Report for previous fiscal year
- Spray weed complaints / areas contractor didn't get to

August

- Contracted Brush Control Spraying starts

September

- Check on and re-treat noxious weed areas if needed

October

- Develop Prescribed Burn List for fall / spring
- Mow fire breaks for fall / spring burning

November

- Rent drill and plant CRP (after Nov. 15th)
- Plant ditches / bridge projects
- Prescribed burning
- Weed Commissioners Report

December

- Prepare budget for next fiscal year
- Service Equipment
- Organize Records
- TSI (Timber Stand Improvement with skid loader)
- Turn in WC Appointment Letter to Supervisors
(send confirmation to State WC)
- Turn in CRP seed orders to FSA Office
- Send in LRTF Seed Report for seed used from grant

MATERIAL PROCUREMENT

In 2006 the Webster County IRVM Department was very fortunate to have a local business donate a metal building to be constructed at the Conservation Department's Headquarters in Kennedy Park. This building serves as the IRVM's equipment storage area. This building also has an Air Conditioned seed storage room as well as a heated pesticide storage room. This allows the IRVM Department to buy mulch, seed and pesticides in bulk for a reduced price and can then store these in a dry and safe area.

The majority of Webster County's seeding and spraying materials come from in state vendors. These products are ordered in bulk towards the end of winter so the department is ready to do field work come spring.



APPENDICES

POSITION DESCRIPTION AND QUALIFICATIONS

| POSITION | REPORTS TO | FLSA STATUS |
|------------------------------|-----------------------|-------------|
| Operations Supervisor | Conservation Director | Exempt |

JOB GOALS

Under the general supervision of the Conservation Director, provides assistance in the management, maintenance, operation and development of all parks and management areas. Responsible for directing all aspects of the Integrated Roadside Vegetation Management (IRVM) program. Prepares and administers IRVM budget. Provides technical assistance to landowners with land management decisions. Responsible for assisting in the organizing, directing, and coordinating of department personnel. Serves as the Department Supervisor in absence of the Conservation Director.

QUALIFICATIONS

TRAINING AND EXPERIENCE

Education:

Graduate from an accredited college or university with a minimum of a 2-year Associate Degree in natural resources, wildlife management, forestry, or a related field, and a minimum of two years work experience, preferably in a supervisory capacity. Or, five years of similar work experience.

Specialized Training: State Certified Peace Officer (Optional- discretion of the board)

Required Licenses, Registrations, Certifications:

Must possess a valid Iowa Driver's License, and be able to obtain a Commercial Driver's License (Class A) within one year of hire.

Must possess a Commercial Pesticide Applicator License, or be able to complete certification within 6 months of hire. (Category 2, 3OT and 6)

Must possess Wildland Fire Training – S130, S190, S290 or be able to obtain within 1 year of hire

Safety Training Requirements:

Certification in CPR and Basic First Aid, Blood-borne pathogens, Hazard communication

POSITION DESCRIPTION AND QUALIFICATIONS

| POSITION | REPORTS TO | FLSA STATUS |
|------------------------------|-----------------------|-------------|
| Vegetation Specialist | Operations Supervisor | Non-exempt |

JOB GOALS

The **Vegetation Specialist** under the supervision of the Operations Supervisor assists with all aspects of the Integrated Roadside Vegetation Management (IRVM) Department in roadsides and other natural areas including, but not limited to, noxious weed control, prairie restorations, and equipment operation and maintenance. Serves as the Webster County Weed Commissioner. Assists the conservation staff with all aspects of land management under the control of the Conservation Board. Provides technical assistance to landowners with land management decisions. Prepares grants for funding, prepares Weed Commissioner Reports and performs various public relation functions.

QUALIFICATIONS

TRAINING AND EXPERIENCE

Education:

Graduate from an accredited college or university with a minimum of a 2-year Associate Degree in natural resources, wildlife management, forestry, or a related field, and a minimum of two years work experience

Required Licenses, Registrations, Certifications:

Must possess a valid Iowa Driver's License, and be able to obtain a Commercial Driver's License (Class A) within one year of hire.

Must possess a Commercial Pesticide Applicator License, or be able to complete certification within 6 months of hire. (Category 2, 3OT and 6)

Must possess Wildland Fire Training – S130, S190 or be able to complete within 1 year of hire

Safety Training Requirements:

Certification in CPR, AED and Basic First Aid, Blood-borne pathogens, Hazard communication

POSITION DESCRIPTION AND QUALIFICATIONS

| POSITION | REPORTS TO | FLSA STATUS |
|---|------------------------------|-------------------|
| Park/Natural Resource Technician | Operations Supervisor | Non-exempt |

JOB

The **Park/Natural Resource Technician** will assist with the daily maintenance activities of the Conservation Department. Duties include operating equipment and tools associated with park and facility maintenance, along with assistance of land management activities under the control of the Conservation Board. This position will assist the Vegetation Specialist with brush and noxious weed control on county management areas and roadsides.

QUALIFICATIONS

TRAINING AND EXPERIENCE

Education:

Graduation from an accredited two (2) year college with a major in a natural resources field; or a minimum two (2) years work experience in natural resource management or trail maintenance; ability to safely and effectively operate equipment and maintain parks, facilities and management areas. Standard work week. May be required to work flexible hours and days, with some weekend and evening hours.

Required Licenses, Registrations, Certifications:

Iowa Driver's License

Commercial Driver's License (within 6 months of hire)

Must possess a Category 2, 3T and 6 Herbicide Applicator Certification (within 6 months of hire)

S-130/190 Wildland Fire Certification

ASI – ATV Safety Certification

Safety Training Requirements:

Certification in CPR & AED, Blood-borne pathogens, Hazard communication, chainsaw safety, ATV safety. Additional safety training may be assigned.

PROGRAM HISTORY

History

In 1990 the Webster County Weed Commissioner Position and the IRVM Program were started within the Webster County Conservation Department. This allowed the Board to hire a Resource Coordinator, under the supervision of the Conservation Director, to oversee the 1,200 miles of road, or 7,000 acres of vegetation in Webster County's right-of-way. Up until 2005 the Resource Coordinator hired six seasonal employees to spray all the road ditches in the county from mid-May through mid-July for noxious weeds.

In 2005, this position was modified to a Vegetation Specialist with the assistance of a Vegetation Technician. The responsibilities of these positions included roadside spraying, Weed Commissioner duties, ditch seeding, ditch mowing, prescribed burning, managing vegetation on all county property, and working with private landowners.

In 2006 the board continued to change the model of Webster County's IRVM Department. The Vegetation Technician position was dropped and a new Vegetation Specialist was hired. The county spray crew was eliminated and replaced with contract spraying of both noxious weeds and brush. The Vegetation Specialist remained in charge of the Weed Commissioner duties, ditch seeding, and vegetation management along with overseeing the contract spraying. The program was further modified in 2010 when the Vegetation Specialist position was combined with the new Operations Supervisor Position which oversees the Conservation Department's daily operations. The Vegetation Specialist (Roadside Manager & Weed Commissioner) position made up 50% of the individual's job description as well as the Operations Supervisor position making up the other 50%. This combination worked well but at times became extremely busy.

In 2015 the Operations Supervisor position became a full time position with the Conservation Department and a new Vegetation Specialist (Roadside Manager) took over the IRVM Department's field duties. The Operations Supervisor will continue to oversee the IRVM budget. The new Vegetation Specialist will also be the Webster County Weed Commissioner.

In 2018 a new Natural Resource Tech position was created. This position is shared 50/50 with the Conservation Department and IRVM program. This position works with the Operations Supervisor and Vegetation Specialist on many roadside and habitat projects.

The board continues to evaluate the IRVM Program and looks for ways to enhance and expand the program.

IOWA NOXIOUS WEED LIST

Primary noxious weeds

quackgrass (*Agropyron repens*)
 perennial sowthistle (*Sonchus arvensis*)
 * Canada thistle (*Cirsium arvense*)
 bull thistle (*Cirsium lanceolatum*)
 field bindweed (*Convolvulus arvensis*)
 horsenettle (*Solanum carolinense*)
 * leafy spurge (*Euphorbia esula*)
 perennial pepper-grass (*Lepidium draba*)
 Russian knapweed (*Centaurea repens*)
 * Buckthorn
 * musk thistle (*Carduus nutans*)
 tall thistle (*Cirsium altissimum*)
 Palmer amaranth (*Amaranthus palmeri*)

Secondary noxious weeds

* velvet leaf (*Abutilon theophrasti*)
 cocklebur (*Xanthium commune*)
 wild mustard (*Brassica arvensis*)
 wild carrot (*Daucus carota*)
 sheep sorrel (*Rumex acetosella*)
 sour dock (*Rumex crispus*)
 smooth dock (*Rumex altissimus*)
 poison hemlock (*Conium maculatum*)
 multiflora rose (*Rosa multiflora*)
 wild sunflower (*Helianthus annus*)
 puncturevine (*Tribulus terrestris*)
 * teasel (*Dipsacus spp.*)
 shattercane (*Sorghum bicolor*)
 buckhorn plantain (*Plantago lanceolata*)

* Species of greatest concern in Webster County

*INVASIVE PLANTS IN IOWA

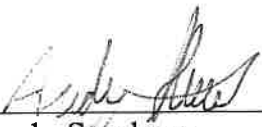
| | | |
|-------------------------|----------------------|-----------------|
| Yellow Star Thistle | Autumn Olive | Cheatgrass |
| Exotic Bush Honeysuckle | Crown Vetch | Chinese Elm |
| Common Burdock | Dames Rocket | Garlic Mustard |
| Honeysuckle | Oriental Bittersweet | Kudzu |
| Japanese Barberry | Queen Anne's Lace | Salt Cedar |
| Wild Parsnip | Purple Loosestrife | Russian Olive |
| Spotted Knapweed | Winged Burning Bush | Giant Hogweed |
| Japanese Knotweed | Reed Canary Grass | Privets |
| Siberian Elm | Tree of Heaven | Winged Euonymus |
| White Mulberry | Sericea Lespedeza | Knapweed |
| Common Buckthorn | Common Teasel | Bull Thistle |
| Canada Thistle | Reed Canary Grass | Musk Thistle |
| Leafy Spurge | Velvet Leaf | |

* Invasive plants found in Iowa according to Iowa Department of Natural Resources

SUMMARY

In summary, the Integrated Roadside Vegetation Management Program plays an essential part in providing quality habitat, improving water quality, reducing soil erosion and providing safe roadsides throughout Webster County and the State of Iowa. Webster County is privileged to be part of such a great group of people that are all trying to make Iowa's roadsides more stable, safe, and attractive. The future of the IRVM Program is bright and as time goes on other states will follow in our footsteps.

I believe all the information stated in this plan is correct to the best of my knowledge and approve submittal of this plan to the agencies involved.



Andy Stanberg
Vegetation Specialist
Webster County Conservation Board

7/21/2020
Date