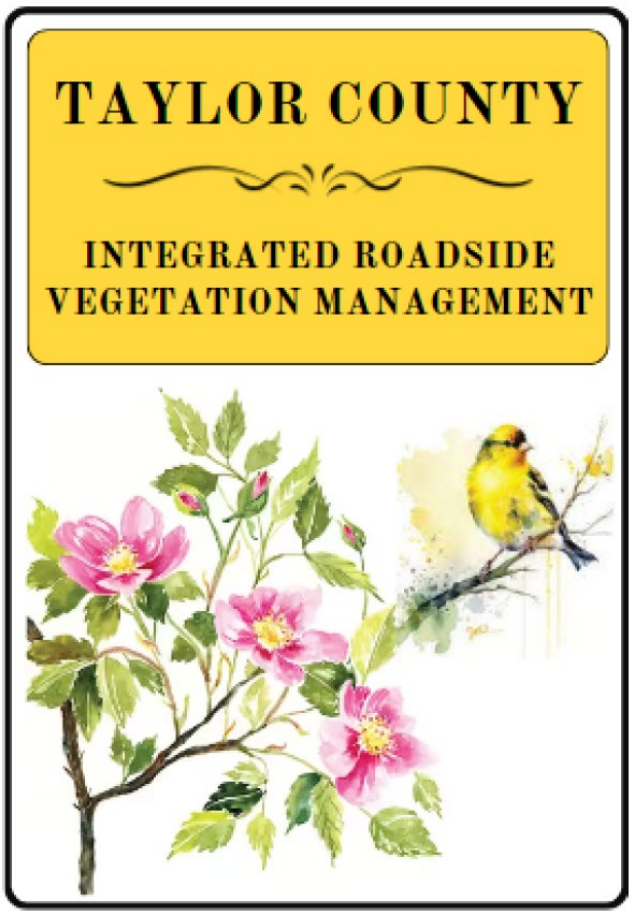
Integrated Roadside Vegetation Management Plan



Taylor County

Version Date: SEPTEMBER 19, 2024

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1. Preface

The intent of the Taylor County Secondary Roads Integrated Roadside Vegetation Management Plan, herein referred to as IRVM, is to improve the aesthetics of Taylor County's roadways and secondary roads.

In accordance with Iowa Code 314.22 Integrated Roadside Management, Taylor County will benefit from more visually pleasing and safer roadways allowing for safer traveling environments, improved erosion control, more beneficial wildlife habitat, improved weed control as well as an improved environment for pollinators.

Unsightly scrub brush and invasive vegetation will be replaced with native prairie grasses and flowering plant species native to Iowa.

This will be accomplished through the use of mechanical removal as well as the use of herbicides and controlled/prescribed burns along with regular roadside maintenance practices.

Update/Version

Version Date: September 1, 2023

Contributors to the Plan

Plan developed by Toney McElroy, Operator II, Taylor County Secondary Roads with support from Iowa Department of Transportation, Tallgrass Prairie Center, and Iowa's Living Roadway Trust Fund.

2. Executive Program Elements

Executive Summary

Initial five-year plan includes bringing Taylor County's roadways up to a safer traveling environment and implementing more beneficial roadsides to assist in erosion control, elimination of snowdrift on secondary roads, improve water quality and provide better habitat for Taylor County's upland game and pollinators.

Goals

Currently we are one year into improving travel conditions through forestry mulching and the application of herbicides to remove and control invasive species and brush/trees. This has allowed for landowners to move through our secondary roads without damage to their farming equipment as well as improving visibility along curved stretches of roadways and intersections.

Year two (2024) will consist of continuing forestry mulching/mowing along with implementation of prescribed/controlled burning. Thue use of our FINN T90 Hydroseeder will assist in burn control as well as new plantings of grasses to control invasive plants/weeds.

Program History

By August of 2022 it was recognized that a full-time roadside management program would be needed in order to bring Taylor County's roadways up to a safer, more visually pleasing state. We set out to initially open up some of the level B roads and remove overhanging/encroaching plants and trees.

Encouragement from local residents and landowners indicated that residents were pleased with the work being done and I began to research what more could be done to improve the whole of Taylor County. After consulting with the Iowa DOT, I was placed in contact with Tallgrass Prairie Center and the University of Northern Iowa to assist in developing an IRVM program.

IRVM Decision Making Process

Currently all decisions for our IRVM program are made by Toney McElroy (myself).

Program Type

The IRVM program is housed in Secondary Roads and overseen by the Taylor County Board of Supervisors.

Area Map

See map attached to this report.

3. Jurisdictional Recognition and Approval

Management

Justin Savage, Taylor County Engineer, provides supervision and approval of IRVM programming needs.

Toney McElroy, Operator II is an equipment operator, certified applicator, and provides roadside management.

Board of Supervisors

Supervisors provide budgetary approval of necessary equipment/needs of the IRVM program.

Iowa Code and Administrative Rules – State Laws and Regulations

Iowa Code 314.21: Living Roadway Trust Fund

Iowa Code 314.22: Integrated Roadside Vegetation Management

Iowa Code 317: Weeds

Weed Identification:

Iowa's Noxious Weed Law: Chapter 317 | Integrated Crop Management (iastate.edu)

Local Laws and Regulations

The only steps we take when doing dirt work would be a one call. As far as I know, the only permitting we do is with bridge work.

Permitting

Not Applicable.

Obstructions, Nuisance, and Enforcement

Currently Taylor County's secondary roads face serious encroachment from cedar trees, plum brush and a variety of other scrub brush and young trees.

This in turn has led to financial costs to landowners and residents due to animal and personal vehicle collisions, damage to farm equipment from low hanging branches and brush reaching onto the roadways impairing vision and affecting reaction time when native wildlife enters the roadways.

Currently, all roadside vegetation is being cut back to the fence lines on either side of the road and where possible, a one to three-foot strip of vegetation is left behind along the fences for cover for upland bird and small game populations.

Low hanging tree limbs are cut back allowing no contact to large farm equipment and semi's transporting grain or livestock.

This approach has resulted in the margins of our roadways, or the right of way, to be expanded twenty to forty feet on each side of the road on many of the roads that have undergone forestry mulching.

Blanket applications of herbicides has allowed these margins to remain open and allow for the regrowth of grasses. Mowing efforts by landowners has kept the small brush and cedar trees from reestablishing.

4. Program Organizational Structure

Staff Organization Chart

- Taylor County Board of Supervisors.
  - Toney McElroy, Operator II is an equipment operator, certified applicator, and provides roadside management.

Staffing Needs

Yearly training through Roadside Conferences.

Open communication/co-operative efforts with local organizations ie: Taylor County Soil and Water Conservation District, Taylor County Conservation Board etc.

5. Inventory and Analysis

Natural Resources

- Tools
  - Currently the only tools used in tracking IRVM in Taylor County is a 36"x36" laminated county map. I use different colored highlighters to track where I have used the forestry mulcher, what areas have been sprayed and with what herbicides and what areas need to be mulched and or just sprayed to control vegetation.
- Vegetation
  - No Roadside Vegetation Surveys or Remnant Vegetation Surveys have been conducted for Taylor County.

Equipment

- Current Inventory:
  - Kamatsu Excavator with a forestry mulching head for removal of trees and brush.
  - Disc mowers on tractors allow for mowing of shoulders.
  - A 200-gallon tank mounted to a flatbed pickup with an adjustable height spray arm is used for herbicide application.
  - A FINN T90 Hydroseeder with a 900-gallon tank can be used for replanting, fire suppression, and washing of hardtop intersections, etc.

- Future equipment needed to work roadsides more efficiently would include:
  - A dedicated skid steer with mulching attachment as well as a blade or bucket for finish work (cleaning up roads when work is completed). The use of a skid steer would speed up the process of clearing roadways since it would be better utilized in the clearing of smaller vegetation such as brush and smaller trees instead of moving an excavator to smaller job sites.
  - A one-ton pickup with a flatbed would be beneficial for towing the Hydroseeder.
  - A trailer to move a skid steer/haul needed supplies would be more beneficial than loading a full-sized tractor/trailer combo when they are not always available.
  - A drip torch would be the best option for controlled/prescribed burns.

6. Program Operations

Annual Operations

Currently our IRVM program is a 40-hour per week, year-round operation.

- Spring/Summer
  - Apply pre-emergent herbicides following a mapping process of North/South roadways. As the year progresses, spray East/West roadways with spot applications to control or eliminate invasives. This is done by dedicating one to two days just for spraying, usually a Friday.
  - The removal and or cutting back of the right-of-way (ROW) is a daily process with the use of the excavator/mulching head. This process could be further sped up by the use of a skid steer with a mowing or mulching attachment to eliminate the smaller material at a faster rate than the excavator can provide, leaving the excavator for the larger material.
  - The addition of a heavier duty pickup along with a trailer would allow for the transport of an additional toothed or ditching bucket that could be hauled on the trailer along with the skid steer and quickly swapped out to allow for the removal of larger trees encroaching on the roadway from the ROW. This would also allow for any ditching or shoulder pulling that may be needed at the end of the job to aid in drainage or ROW improvements without the need for additional personnel.
  - The current plan of action is to clear the ROW of unwanted or encroaching vegetation, trees, and brush. Following that, the roadway is cleared of any small debris and finished by one of our grader operators. Once that is completed, the shoulder is mowed, and any debris removed to the road margin. Two weeks is allotted for the start of new growth to emerge, and the road margin is then sprayed to eliminate the growth of unwanted vegetation and allow for the native grasses to establish. This process is repeated until the fall when plant life goes dormant, and the days are dedicated to the removal of brush and trees and the overall appearance of the roadsides.

- Fall
  - Reseeding or fall seeding is done when plant life goes dormant to allow for spring growth of a stronger base of native grasses.

Work Area Types

We deal strictly with the ROW and the areas of approach to bridges on our secondary roads.

Vegetation Types for Specific Uses

Not implemented at this time as we are still in the process of establishing a base.

Special Projects

Currently establishing a plan to address a more aesthetic roadside for our local parks, Lake of Three Fires, Wilson Lake, and Sands Timber. This will provide a more enjoyable approach to these areas for tourism and local enjoyment by way of p=flowering plants and bushes. Wildflower planting along roadsides surrounding local apiaries to benefit pollinators and songbirds is also a goal of the 2024 season.

Training

Training will be conducted through roadside management seminars as well as online "e-learning".

Safety

Safety is always an ongoing practice and is presented during quarterly training meetings at Taylor County Engineers Office.

7. Methods

Vegetation Establishment

We are basically starting from scratch and will follow the Integrated Roadside Vegetation Manual. Cover pages (iowa.gov)

Ongoing Maintenance

We are basically starting from scratch and will follow the Integrated Roadside Vegetation Manual. Cover pages (iowa.gov)

Urban vs Rural Implications

We are basically starting from scratch and will follow the Integrated Roadside Vegetation Manual. Cover pages (iowa.gov)

8. Material Procurement

Sourcing

Will work on identify where to source materials for seed, erosion control materials, and hydroseeding.

Material Handling and Storage

The mulch I use for the hydroseeder and the seed is kept in the same shed with the spray truck and the other pickups, our chemicals are kept in a conex box with spare grader tires and signage. Everyone has a key and access to that as well which shouldn't be the case with chemicals at a minimum.