

POWESHIEK COUNTY

IRVM



IOWA LIVING ROADWAY TRUST



POWESHIEK COUNTY INTEGRATED ROADSIDE VEGETATION MANAGEMENT PROGRAM PLAN

PREFACE

a. Update / Version

Update No. 3 of the Poweshiek County IRVM Plan 3/13/15

b. Contributors to the Plan

Trevor White – BOS, Poweshiek Co.

Lyle Brehm – Poweshiek Co. Engineer

Mark Vavroch – Poweshiek Co. Conservation Director

Corey Simpson – Poweshiek Co. Roadside Manager

c. Table of Contents

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EXECUTIVE PROGRAM ELEMENTS

a. Goals

Establish and maintain a self sustaining and visually interesting plant community within the county right-of-way that provides for public safety, controls weeds, reduces erosion, preserves and/or increases biodiversity, improves infiltration, maintains drainage patterns, provides habitat, and provides a reduction in long term maintenance costs.

Objectives:

- Promote, establish, and manage native plant species whenever possible
- Survey and maintain an updated inventory of the vegetative community and plant species found within the county right-of-way
- Determine and implement the best IRVM practices for maintaining the right-of-way for public safety and an economically and environmentally sustainable plant community
- Continually evaluate and monitor the effectiveness of implemented IRVM techniques
- Work with adjacent landowners, city government officials, and community groups to implement IRVM principles and roadside beautification projects
- Adopt and implement emerging trends in planning and management of roadsides
- Coordinate roadside management activities with the State IRVM Coordinator and DOT Living Roadways Trust Fund Coordinator
- Coordinate roadside management activities with the Tallgrass Prairie Center, University of Northern Iowa
- Work with officials representing local conservation organizations to establish support for the IRVM program
- Implement Chapter 317 of the Code of Iowa
- Maintain written records and submit yearly reports
- Work towards a roadside spraying program
- Focus herbicide applications on those species listed on the States Noxious Weed List

b. Program History

In February of 2009 Integrated Roadside Vegetation Management was implemented by the Poweshiek County Board of Supervisors and the Poweshiek County Conservation Board as a joint cooperation. The first Roadside Manager agreed to preform IRVM duties along with duties of the Conservation Board.

c. IRVM Decision Making Process

As a first priority, current IRVM methodologies will be used that are most consistent with the goals and concepts of roadside vegetation management in this plan. The Roadside Manager along with the County Engineer and County Conservation Board Director will determine budgets, equipment needs and grants.

d. Executive Summary

The Poweshiek County IRVM Program recognizes that it is new to the system of IRVM implementation, but is committed to planting visually interesting, ecologically integrated, and useful native plant species for many purposes. Maintaining a safe travel environment by providing adequate line of sight at intersections, minimizing snow drifting, and removing potentially dangerous trees and other obstructions. The IRVM program will serve a variety of public purposes including drainage, erosion control, wildlife habitat, recreational uses, noxious weed control, scenic qualities, utility easements, and sustenance of water quality.

e. County Map (Appendix)

f. Program Type

The Poweshiek County IRVM Program is housed through the Poweshiek County Conservation Board Office and jointly administered through Secondary Roads Department and Conservation Board.

JURISDICTIONAL RECOGNITION AND APPROVAL

a. Management

The County Engineer and Conservation Board Director will make decisions on where major construction takes place and they determine where the larger native seeding projects are carried out. They approve all grant applications and annual budget.

Maintenance Superintendent: Delegates daily workload to maintenance employees, approves entrance permits, decides where and when ROW maintenance projects occur (ditch cleanouts, crossroad pipes, entrances, etc.).

Roadside Manager: Administers the Roadside Program; seeds all bare soil in a timely manner, decides what types of seed to use and when it should be planted, what types of

soil prep work are needed, additional erosion control measures, management of native vegetation after establishment (burning, spraying, etc.). Has input on budget requests. In direct communication with the Engineer, Conservation Board Director, and Maintenance Superintendent on special projects and day to day work priorities.

**b. Board of Supervisors/County Conservation Board Statement of Support
(Appendix)**

c. Iowa Code and Administrative Rules – State Laws and Regulations

Section 314.22 Integrated Roadside Vegetation Management

Section 314.17 Mowing Law – No mowing before July 15th

Section 317.11 Weeds on Roads - Harvesting of Grass

Section 318.3 Obstructions in ROW / Destruction of plants placed in ROW / Crops in ROW

Chapter 317 Iowa Weed Law – Noxious Weeds and Enforcement Procedures

d. Local Laws and Regulations

Iowa Code Chapter 317 – Governs county noxious weeds and Weed Commission actions.

e. Permits (appendix)

Permits and Requests are obtained at the County Engineers Office. Individuals describe what work is being performed or the issue of concern and the appropriate permit or request is retrieved. After the permit or request is filled out with the necessary information and fees collected, the permit or request is issued to the individual and a copy is filed with the county.

Utility Permit

Driveway & Entrance Permit

Construction Permit

PROGRAM ORGANIZATIONAL STRUCTURE

a. Staff Organizational Chart

County Engineer
 Maintenance Superintendent
 Conservation Board Director
 Roadside Manager
 Seasonal Staff

The County Engineer works with Maintenance Superintendent on delegation of workload. The Roadside Manager manages implements seeding, erosion control and weed control through daily communication and prioritization. All Secondary Roads/Conservation staff are subject to department work duties as needed, given the seasonality, diversity, and unpredictability of the department workload.

b. Staffing Needs/Training

IRVM employees will maintain a class B CDL, Category 6 Applicators License
 Attend yearly IRVM Roadside Conference
 Follow all safety guidelines when working in the ROW

c. Partners

- Poweshiek County Engineers Office
- Poweshiek County Conservation Board
- Pheasants Forever
- Utilities

d. Stakeholders

Integrated Roadside Vegetation Management is implemented on behalf of the citizens of Poweshiek County.

INVENTORY AND ANALYSIS

a. Tools

- Mapping – records for seeding projects
- Aerial Photography – acreage of highlighting planted areas
- Paper Records – equipment maintains logs

b. Natural Resources

Native vegetation, soil, and water are all considered natural resources in the scope of IRVM. Consideration for these natural areas will be identified with IRVM management

c. Equipment

Large Equipment

- IRVM shed (LRTF)
- Truax 8 foot seed drill
- 10 foot disc (LRTF)
- Bush Hog Mower
- Land Pride Broadcast Seeder (LRTF)
- JD 2355 4WD tractor
- Finn T-60 Hydroseeder (LRTF)
- Dump truck
- Danko 250 gal Burn unit (LRTF)
- Dump Trailer(LRTF)
- John Deere XUV (LRTF)

Small Equipment

- Drip torch
- Nomex pants, shirts, coveralls (LRTF)
- Chainsaws (6) (LRTF)
- LandPride 3 point Blade (for tractor)

PROGRAM OPERATIONS

January – March: Cut trees and brush, IRVM office and LRTF Grants, training and other duties as assigned.

March – April: Prescribed burning, LRTF Grants, inventory and order materials, begin spring seeding, and other duties as assigned

April – October: Seeding, Weed Commissioner duties, erosion control for projects, Spot spraying, mowing 1st and 2nd year plantings, equipment maintenance, other duties as assigned

October – December: Cut trees and brush, fall/dormant seeding, equipment maintenance, reports, material inventory, other duties as assigned

a. Work Area Types

- Rural
 - Rural adjacent agriculture
 - Rural adjacent non-agricultural
 - Rural adjacent homestead
 - Rural adjacent subdivision
 - Rural densely populated areas
- Urban
 - Unincorporated towns
 - Rural-Urban Interface

b. Vegetation Types for Specific Uses

- Residential ROW– turf grass – Mowed areas in front of houses
- Non-Residential ROW – native tallgrass prairie – Areas where long term establishment and persistence of tallgrass prairie is deemed feasible by the Roadside Manager
- Miscellaneous ROW / Borrow Area / Easement – cool season grasses – Areas where long term establishment and persistence of tallgrass prairie is deemed not feasible by the roadside manager.

METHODS

a. Vegetation Establishment

Ditch clean out/Regrade

Site preparation (soil condition)

Broadcast, Drill, Hydroseed

Native

Big bluestem	1.5 lbs/ac	Purple coneflower	1.6 oz./ ac
Sideoats gramma	2 lbs/ac	Rattlesnake master	2.4 oz./ ac
Canada wild rye	2.5 lbs/ac	Ox-eye sunflower	4 oz./ ac
Little bluestem	2 lbs/ac	Roundheaded bushclover	1 oz./ ac
Indiangrass	1.5 lbs/ac	Wild bergamot	0.6 oz./ ac
Partridge pea	8 oz./ ac	Foxglove penstamen	0.5 oz./ ac
Leadplant	0.5 oz./ ac	Large flowered penstemon	0.5 oz./ ac
Butterfly milkweed	0.8 oz./ ac	Prairie blazingstar	0.8 oz./ ac
Swamp milkweed	1 oz./ ac	Yellow coneflower	4 oz./ ac
New England aster	0.3 oz./ ac	Blackeyed susan	3 oz./ ac
Canada milkvetch	0.8 oz./ ac	Compass plant	0.5 oz./ ac
White wild indigo	0.5 oz./ ac	Stiff goldenrod	0.3 oz./ ac
Purple prairie clover	4 oz./ ac	Ohio spiderwort	0.8 oz./ ac
Showy tick trefoil	0.5 oz./ ac	Hoary vervain	0.5 oz./ ac
Goldenrod	0.8 oz./ ac	Rough dropseed	16 oz./ ac

The species and amounts are both subject to change with the statewide TAP seed purchase annually.

Cool Season / Non-Native

Alsike Clover 1 lb/ac
 Medium Red Clover 1.5 lb/ac
 KY 31 Fescue 10 lb/ac
 Gulf Annual Ryegrass 10 lb/ac
 Climax Timothy 2.5 lb/ac

Spring Cover Crop

Cover Crop Oats 80 lbs/ac
 Annual Ryegrass 10 lbs/ac
 Timothy 1 lb/ac

Fall Cover Crop

Winter Wheat	100 lbs/ac
Timothy	1 lb/ac

Residential Mix

All Purpose Lawn Seed Mix (as available)

- Seeding Techniques

- Hydroseeder – broadcast with water only
- Hydroseeder – mix seed with mulch
- Hydroseeder – broadcast then cover with mulch
- LandPride Broadcast Seeder
- Truax FLX II Seed Drill

- Erosion and Sediment Control

Hydromulch on ditch cleanouts and other projects as needed

- Vegetation Establishment and Maintenance

These include but are not limited to:

- First and second year mowing of annual weeds on new seeding
- Prescribed burning
- Selective spot spraying

- Planting Evaluation and Documentation

Maps and records including location, size, date seeded, seed mix used, and other notes are recorded for all native seeding projects. Sites are evaluated yearly

- Mowing

Shoulder mowing occurs 1-2 times per year on paved roads. Brush mowing occurs as time allows. Shoulder mowing and spot brush mowing are conducted by maintenance employees in each districts. (Section 314.17 Iowa Code)

- Chemical Control for Noxious Weeds, Invasive Species (Spot Spray)

Noxious weeds: Chemical control of State Listed Noxious Weeds is performed on a case by case basis. Chemical control of Noxious Weeds is confined to those species that need to be controlled with herbicide on the basis of their current potential economic threat or hardship to agriculture, as well as their potential threat to the establishment of a sustainable vegetative community in roadsides

Invasive Species: Chemical control of invasive species is considered on a case by case basis.

- **Tree and Brush Control**

Tree and brush control (non-herbicidal) is conducted on all portions of the right-of-way as time and resource availability allow. All woody vegetation growing within the right-of-way is subject to removal at the time of tree and brush removal operations unless otherwise directed by the Engineer. All stumps are to be cut flush to the ground and treated with herbicide labeled for that application, or as needed.

- **Prescribed Burning**

Portions of right-of-way containing populations of native plants are to be burned as needed to achieve IRVM management goals and objectives, as determined by the Roadside Manager.

- **Burning Plan and Records of Previous Burning**

Burn plans are created as needed by the Roadside Manager. Burn Notifications are sent to adjacent landowners prior to conducting prescribed burns.

MATERIAL PROCUREMENT

a. Sourcing

Seed, herbicide, mulch, and any other materials necessary to perform IRVM functions are purchased as needed at fair market value through reliable vendors. Prices for seed, herbicide, and mulch are reviewed annually by the roadside manager, vendors are contacted, and pricing made available. Materials are then purchased at the lowest price.

b. Material Handling and Storage

- Seed – Seed is stored in the seed room located in the IRVM shed
- Herbicide – Herbicide is stored in an approved chemical storage cabinet inside the Conservation maintenance building
- Mulch – stored inside the IRVM building

APPENDICES

a. Position Description and Qualifications

DEFINITION: The Roadside Manager is a joint employee of the Poweshiek County Secondary Roads Department and the Poweshiek County Conservation Board, whose responsibilities are to address the provisions of Section 314.22 of the Code of Iowa, the Integrated Roadside Vegetation Management (IRVM) Law, and Section 317, the Noxious Weed Law. The Manager shall administer, develop, plan, and conduct a program of vegetative habitat management that seeks to control unwanted vegetation and promote desirable vegetation on Poweshiek County rights-of-way and public areas.

DUTIES AND RESPONSIBILITIES: The Roadside Manager and IRVM staff shall coordinate their activities with the County Engineer and Secondary Roads Department, as well as with the County Conservation Board. The Manager's responsibilities shall include, but not be limited to, the following:

1. Control of noxious weeds in rights-of-way and public areas
2. Planting and maintenance of native and introduced grass/forb communities in newly graded, cleaned out, or otherwise disturbed sites on county rights-of-way.
3. Inventorying and documenting plant communities and trends along county rights-of-way.
4. Remove all unwanted trees and brush causing safety concerns along county roadways.
5. All Weed Commissioner duties and responsibilities.
6. Other duties as assigned.

REQUIREMENTS:

The Roadside Manager shall:

1. Maintain a valid pesticide applicator's license in Category 6, Right-of-Way or be able to obtain in 60 days.
2. Maintain a valid Iowa class B Commercial Driver's License, or able to obtain in 60 days.
3. Attend ongoing training within budget limitations
4. Maintain all necessary records and Safety Data Sheets on chemicals used.
5. Submit and keep on file annual reports to the Iowa Department of Agriculture pertaining to the application of herbicides
6. Oversee maintenance and record keeping on all equipment and vehicles assigned to the IRVM program.
7. Have a minimum four-year college degree in a natural resource related field with major course work in botany and wildlife; or a two-year degree in a related field plus two years of comparable experience.

NECESSARY KNOWLEDGE AND SKILLS

1. Knowledge of principles of land use and the environmental, social, and economic problems that affect it.
2. Ability to plan work, think conceptually, analyze data, observe and evaluate, and make sound decisions and recommendations.
3. Ability to work well with the public and private sector.
4. Ability to communicate effectively both orally and in writing.
5. Ability to use a computer in word processing, data management, and Geographical Information Systems.
6. Ability to identify native and introduced plant species, including weeds.
7. Knowledge of principles of wildlife management.
8. Familiarity with traditional and new sustainable agricultural methods.
9. Ability to supervise support staff.
10. Ability to operate and maintain power equipment.

IRVM STATEMENT OF SUPPORT

The Poweshiek County Board of Supervisors, the Poweshiek County Engineer, the Poweshiek County Conservation Board and the Poweshiek County Integrated Roadside Vegetation Management Department come together in cooperation, common goals and shared ideas to manage roadside in Poweshiek County by and through integrated roadside principals.

We realize that I.R.V.M. will be beneficial to our roadside management goals, while being economically and environmentally beneficial.

We understand that working in unison toward improving roadside vegetation is the most efficient way to accomplish the goal of improved, safe, and weed free roadsides. These roadsides will also add to the habitat and natural beauty of Poweshiek County.

We hereby agree to manage Poweshiek County roadsides according to the provisions described within this management plan.

Poweshiek County Board of Supervisors

By: Lammone Gaard
Chairperson, Lammone Gaard
Lammone

Date: April 2, 2015

Poweshiek County Engineer

Lyle Brehm
Lyle Brehm, P.E.-Engineer

Date: 4/1/2015

Poweshiek County Conservation Board

Mark Vavroch
Mark Vavroch, Director

Date: 3/30/15

Poweshiek County Roadside Manager

Corey Simpson
Corey Simpson, Roadside Manager

Date: 3-30-15

UTILITY PERMIT

February 5, 2014

APPLICATION FOR APPROVAL OF UNDER-GROUND CONSTRUCTION ON COUNTY RIGHT-OF-WAY

Poweshiek County, Iowa

Permit No. _____

Date _____

To: Board of Supervisors, Poweshiek County, Iowa

Applicant:

Name of Individual or Company

Address

Incorporated under the law of the State of _____ with principal place of business in

City and State

Date _____

Approval is hereby requested of under-ground construction of _____

(description of work contemplated)

Map of proposed under-ground construction showing location
shall be attached to each copy of the application.

AGREEMENTS: The applicant agrees that the following stipulations shall govern this permit.

1. The applicant will at any time subsequent to placing the cable, pipe line or tile line on County right-of-way, and at his own expense, relay, reconstruct or encase his lines as may become necessary to conform to new grades, alignment or widening right-of-way, resulting from maintenance or construction operations by the County. The applicant agrees to do this promptly on order by the County, and without cost to the County. If the applicant is unable to comply promptly, the County may cause the work to be done, and the applicant will pay the cost thereof upon receipt of statement.

The County will endeavor to give the applicant sufficient notice of any proposed construction or maintenance work, on either existing or newly acquired right-of-way, that is likely to expose, cover up, or disturb any cable, pipe line or tile line belonging to the applicant, in order that the applicant may arrange to protect his lines. The County will inform contractors, and others working on the job, of the

UTILITY PERMIT

location of the lines so that reasonable care may be taken to avoid damaging the lines. The County assumes no responsibility however, for failure to give such notice.

2. The County assumes no responsibility for damages to the applicant's property occasioned by any construction or maintenance operations on said highway, including new or additional right-of-way acquired in connection therewith, subsequent to the building of the said cable.
3. The applicant shall take all reasonable precaution during the construction of said cable to protect and safeguard the lives and property of the traveling public and adjacent property owners and shall save the County harmless of any damage or losses that may be sustained by the traveling public or adjacent property owners of such construction operations.
4. Operations in the construction and maintenance of said cable shall be carried on in such a way as to not interfere with, or interrupt traffic on said highway.
5. The applicant shall hold the County harmless from any damage that may result to said highway because of the construction or maintenance of said cable, and shall reimburse the County for any expenditure that the County may have to make on said highway on account of said applicant's cable having been constructed thereon.
6. The applicant agrees to give the County forty-eight hours notice of its intention to start construction on the highway right-of-way.
7. Cable, pipe line, and tile line crossing paved roads shall be constructed as follows: Pipe lines having an inside diameter of more than 2" which cross under the roadway shall be placed in casings so that the pipe may be removed for repair without disturbing the subgrade. The casing shall be of adequate strength, and of sufficient length to extend 2' beyond each edge of the surfaced roadway. On paved roads, cable casings may be placed through the subgrade by jacking or by boring a hole just large enough to take the line; or, if the County Engineer approves, a tunnel may be dug through, and the cable placed therein. On roads not paved, an open trench may be dug, and the cable, pipe line, or tile line placed therein, and the trench backfilled over the line. All backfilling of tunnels and trenches shall be thoroughly compacted in layers of 6" or less in depth. Backfilling of trenches within the right-of-way but not under the traveled roadway shall be tamped sufficiently to avoid settlement. All work shall be done in a workmanlike manner, and the ground left in a neat condition, satisfactory to the County Engineer in charge.

RECOMMENDATIONS

Recommended for Approval

By _____
County Engineer

Date _____

APPROVAL OF
COUNTY BOARD OF SUPERVISORS

By _____
Chairman

Date _____

Name of Company

By _____

Title

Address _____

Date _____

CONSTRUCTION PERMIT

Poweshiek County, Iowa

Permit No. _____

Date _____

To: Board of Supervisors, Poweshiek County, Iowa:

I, a (property owner) (agent) of Poweshiek County, Iowa, hereby make application requesting to do the following construction within the right of way:

It shall be agreed that:

- (1) The County Engineer will approve the location and design of the proposed construction.
- (2) The applicant shall be responsible for all costs incurred of said construction.
- (3) Poweshiek County will not be responsible for any damages incurred during, or resulting from, the applicant's operation.
- (4) Maximum safety precautions shall be maintained at all times to protect workers, property owners, and the traveling public, during and after said construction.

Section ____ of _____ Township Signed _____
Engineer's Staff

Date _____
Applicant

Date _____
Poweshiek County Engineer

Driveway & Entrance Permit Poweshiek County Secondary Road Department

Contact Information for the Applicant:

Applicant Name	Property Owner Name (if different than Applicant)
Address	Address
City, State ZIP	City, State ZIP
Home Phone Cell Phone	Home Phone Cell Phone

Location of the Driveway:

Township & Section	Name of Street/Avenue and Distance & Direction from Another Street
--------------------	--

For Office Use Only

GPS Coordinates	Sight Distance Left	Speed Limit	Sight Distance Right
Approx. % Grade from Road to Field (up is +, down is -)	Distance from other Driveways		Depth of Ditch

Driveway Size and Cost:

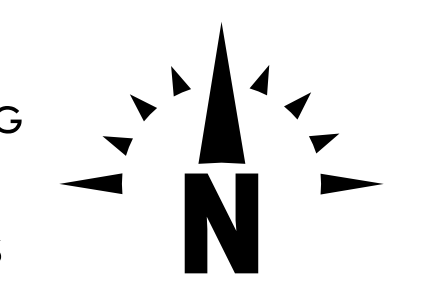
Top Width of Driveway	New or Existing	Cost of Dirt Work
Size & Length of Required Culvert	Cost of Culvert	
Type of Road (Rock, Dirt or Paved)	Cost of Aprons & Safety Bars (if required or requested)	
Date	Total Cost	Date of Payment
Applicant Signature (Signature indicates applicant is owner or agent of the owner)	Approved by County Engineer or Designee	

POWESHIEK COUNTY

IOWA

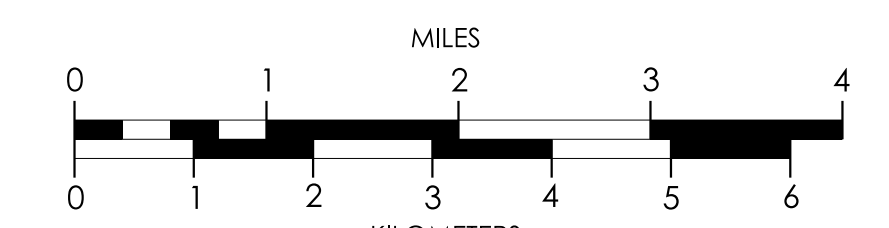


Office of Systems Planning
Phone: (515) 239-1289
WWW.IOWADOT.GOV/MAPS



In Cooperation With
United States
Department of Transportation

JANUARY 1, 2014



LEGEND

- INTERSTATE HIGHWAY
- PRIMARY HIGHWAY-DIVIDED
- PRIMARY HIGHWAY
- PORTLAND CEMENT CONCRETE ROAD
- ASPHALT ROAD
- BITUMINOUS ROAD
- GRAVEL ROAD
- EARTHEN ROAD
- INTERSTATE HIGHWAY
- UNITED STATES HIGHWAY
- STATE HIGHWAY
- COUNTY HIGHWAY
- RAILROAD
- PIPELINE
- AIRPORT
- HYDROLOGY
- BRIDGE
- STATE BOUNDARY
- COUNTY BOUNDARY
- CORPORATE BOUNDARY
- TOWNSHIP LINE
- SECTION LINE
- ROAD NAMES
- UNINCORPORATED PLACE
- STATE PARKS
- STATE INSTITUTIONS
- FEDERAL LAND

