



**Management Plan for
Integrated Roadside Vegetation Management
Story County, Iowa**

July 2016

APPROVED **DENIED**

Board Member Initials: JKS

Meeting Date: 7/12/16

Follow-up action: _____

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Table of Contents

Goals	4
Program History.....	4
IRVM Decision Making Process	5
Executive Summary	5
Jurisdictional Recognition and Approval.....	5
Iowa Code and Administrative Rules	6
Program Organizational Structure	6
Staffing.....	6
Professional Development	6
Partnerships/Volunteers	7
Education and Outreach.....	7
Tools	8
Vegetation.....	8
Vegetation Types for Specific Uses.....	9
Work Area Types.....	9
Annual Operations	9
Special Projects.....	10
Vegetation Establishment	11
Seeding Techniques	11
Prescribed Fire.....	11
Mowing.....	12
Brush Trimming, Cutting, and Grinding.....	12
Sight Distance Issues	12
Weed Commissioner Duties	12
Noxious Weeds.....	13
Bare Ground Herbicide Application	13
Tree and Brush Control (Chemical).....	13
Basal Bark.....	14
Story County IRVM Spray Policy	14
Drainage District Maintenance Program.....	14
Material Procurement.....	15
Facilities/Equipment	15

Appendices

Story County LRTF Funding History	17
Story County IRVM Annual Data 1987 - 2015	18
Iowa Code Chapter 314.22 Integrated Roadside Vegetation Management.....	19
Iowa Code Chapter 317 Weeds	23
Iowa Code Chapter 318 Obstruction In Highway Right-of-Way	34
Iowa Code Chapter 468.126 Repairs and Improvements.....	39
Iowa Code Chapter 468.127 Payment.....	42
Iowa Code Chapter 468.136 Levy Under Original Classification.....	42
Iowa Code Chapter 468.137 Levy Under Reclassification.....	43
Iowa Code Chapter 468.138 Removal of Obstructions.....	43
Iowa Code Chapter 468.139 Trees and Hedges.....	43
Iowa Code Chapter 468.140 Outlet for Lateral Drains — Specifications.....	44
Iowa Code Chapter 468.141 Subdistricts in Intercounty Districts.....	44
Chapter 33 Use of Secondary Road Right-of-Way.....	45
Story County Brush Management Policy.....	48
Story County Ordinance NO. 107.....	49
Job Descriptions.....	53
Vegetation Survey Results.....	54
Prairie Rail Trail Remnant	54
Pioneer Cemeteries	54
Watersheds.....	54
Drainage Districts	54
Story County Soils	54
Equipment Inventory	54
Local Prairie Nursery Species Lists.....	54
IRVM Seed Mixes	54
Planting Record.....	54
Prescribed Fire Record.....	54
Spray Record.....	54

Goals

The goals of the Integrated Roadside Vegetation Management Plan are to:

- Preserve and provide safe, functional, and environmentally-improved corridors of travel throughout the county.
- Utilize a long-term integrated management approach that promotes desirable, self-sustaining plant communities in roadsides, drainage districts, and other wild lands in Story County.
- Implement a vegetation management program for roadsides and county drainage district systems emphasizing wise and effective use of herbicides.
- Enhance the scenic qualities of roadsides and their value as habitat.
- Implement a vegetation management program along Story County's drainage district systems which includes promoting grassed buffer strips and access lanes.
- Network with private landowners, operators, and non-profit organizations to improve air and water quality throughout Story County by establishing native plant communities and promoting good land stewardship.

Program History

In the 1970s, philosophy shifted on how to manage roadside vegetation. Instead of relying solely on the traditional method of broadcast herbicide application, emphasis was placed on spot spraying and encouraging native plant communities. In 1989, the addition of Iowa Code Section 314.22 regarding Integrated Roadside Vegetation Management set a precedent for interested Iowa counties.

With the public's support, The Story County Board of Supervisors created the Integrated Roadside Vegetation program in 1987. Initial funding was transferred from the Secondary Roads budget and allowed the establishment of an IRVM program within the Conservation department.

A unique working situation has developed by housing IRVM operations in the county engineer's building. This has allowed a close and successful working relationship with Secondary Roads personnel. IRVM'S shop is located one mile from Nevada and is the base for field operations.

The Integrated Roadside Vegetation Management Program (IRVM) was developed to provide a cost-effective, environmentally safe management alternative to conventional chemical and mechanical management practices. To date, the Story County Conservation (SCC) IRVM department has planted over 1,100 acres of native species in Story County roadsides. IRVM maintains a safe travel environment on the county right-of-ways, controls noxious weeds and soil erosion, sustains water quality, improves wildlife habitat, and provides the public with aesthetically pleasing roadsides.

IRVM Decision Making Process

The Story County Conservation Board and Story County Board of Supervisors approve budgets and perform county and department governance. The Story County Conservation director oversees the IRVM department and its two full-time employees. The IRVM program works with Secondary Roads and Story County Conservation staff to prioritize and carry out projects.

The vegetation management biologist determines the department's day-to-day operations, sets priorities, and carries out administrative functions of the department, including budget and staff oversight. The vegetation management specialist carries out day-to-day duties as assigned.

IRVM staff work together on all administrative and field operations and jointly supervises seasonal positions to perform work in the roadsides, natural areas, and drainage ditches in the county throughout the year.

Executive Summary

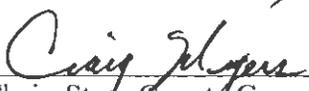
A Story County IRVM plan was last approved in 2005. Since then, several changes have been made to the program. This document serves as a long-term guide for IRVM's actions pertaining to Story County roadsides. Immediate and long-term goals include: reducing maintenance and herbicide use, controlling noxious and invasive weeds, limiting soil erosion with native vegetation, increasing wildlife habitat, and beautifying roadsides.

Jurisdictional Recognition and Approval

IN WITNESS WHEREOF, the parties hereto recognize the benefits the Story County IRVM program provides to the citizens and travelling public of Story County and approve the following plan.



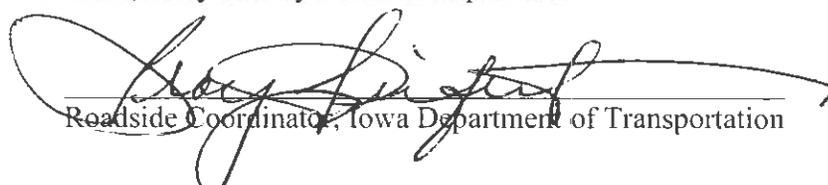
Director, Story County Conservation Board



Chair, Story County Conservation Board



Chair, Story County Board of Supervisors



Roadside Coordinator, Iowa Department of Transportation

Iowa Code and Administrative Rules

Story County IRVM operates under several principles and laws cited in the Code of Iowa and within local policies, agreements, and resolutions. Examples include, but are not limited to:

1. Chapter 314.22 Integrated Roadside Vegetation Management
2. Chapter 317 Iowa Noxious Weed Law
3. Chapter 318 Obstructions in the Right-of-Way
4. Chapter 468 Levee and Drainage Districts and Improvements
5. Story County Ordinance Chapter 33
6. Story County Right-of-Way Brush Management Policy

Currently, Story County IRVM does not administer any formal permits but manages roadsides consistent with Chapter 314.22 laws and regulations. Special requests may be considered from landowners for no spraying around sensitive areas. Permits for work in the right-of-way are issued by the Story County engineer but reviewed by IRVM to prevent disturbance of roadside remnants.

Program Organizational Structure

Story County Board of Supervisors
Story County Conservation Board
Story County Conservation Director
Vegetation Management Biologist
Vegetation Management Specialist
Seasonal Employees/Contract Laborers

Staffing

The IRVM Program currently has two full-time employees assigned to carry out the day-to-day business of the program as well. Two seasonal positions are utilized between May and November for roadside-related duties and between November and March for drainage district maintenance.

Professional Development

It is imperative that professionals in the vegetation management and natural resource field stay current in advances in related fields and licenses. Involvement in professional organizations also stimulates creative processes and offers a forum for sharing ideas. Story County will continue to encourage professional development for IRVM employees.

Partnerships/Volunteers

Partnerships and networking are important aspects in the success of the Story County IRVM program. Partnerships with landowners, volunteers, and non-profit organizations are ongoing. Partnerships have included cooperative projects, mutual community support, providing technical assistance, and education/outreach. Some of those partnerships include:

Ames Community School District
Association for Integrated Roadside Vegetation Management
Ballard Community School District
Boy Scouts of America
City of Ames
City of Maxwell
City of Nevada
City of Huxley
City of Story City
Iowa State University
Iowa State University Extension Office
Iowa State University Pheasants Forever
Iowa Department of Agriculture and Land Stewardship
Iowa Natural Heritage Foundation
Iowa Weed Commissioners Association
Kiwanis
Lions Club
Nevada Community School District
Nevada FFA Chapter
Prairie Rivers of Iowa
Story County Pheasants Forever
University of Northern Iowa
USDA - Farm Service Agency
USDA - Natural Resource Conservation Service

Story County IRVM will continue to work with local volunteers in roadside parks removing invasive species.

Education and Outreach

As part of Story County IRVM's education program, staff will continue to:

- Develop a public awareness campaign to gain support for integrated roadside vegetation management through media, established organizations, seminars, and brochures.
- Obtain educational and informational material on IRVM to be presented in seminars and distributed to adjacent landowners, the general public, consultants, and contractors.
- Provide guidelines and directives for contractors and others who seed, plant, and maintain

roadsides.

- Prepare and distribute instructions on preservation of desirable areas and treatment of areas needing improvement.
- Gather, develop, and distribute information in conjunction with other jurisdictions, municipalities, counties, and non-profit organizations.
- Encourage research in all aspects of IRVM, i.e.; road design, planting methods, management practices, seed sources, seeding rates, seed mixes, planting materials, etc.
- Encourage the use of native seeds and plant materials native to Iowa.
- Document and map all aspects of IRVM progress through Arcview GIS or equivalent software.
- Encourage natural resource management practices which improve water quality, wildlife habitat, and use of native vegetation.

Tools

Initially, paper maps were used to document all operations (e.g. plantings, herbicide applications, and prescribed fire). Since the development of ArcGIS software, staff has cataloged paper records as far back as 1987; past and present paper records are converted to ArcGIS mapping. With assistance from Living Roadway Trust Fund (LRTF) grants, Story County has purchased a handheld GPS/GIS and a GPS receiver for the primary spray truck. This allows for more accurate and accessible data collection in roadside operations.

Vegetation

A plant inventory was initially completed in 1990 with a sampling method using transect routes. Since Story County did not have great vegetation and land use differences across the county, this method was more time and cost efficient than a complete road-by-road survey. This, combined with other available sources of information like plat maps and reports from Secondary Roads personnel, worked well for an early survey.

The survey map coverage and results can be found in the appendices. Other surveys have been completed throughout the years by SCC/IRVM staff, Tallgrass Prairie Center employees, ISU graduate students, and local volunteers evaluating the species compositions in specific plantings and county remnant prairies. A comprehensive county-wide vegetation survey will be sought in the future.

There are many remnant prairie populations in Story County. These include pioneer cemeteries, the Praeri Rail Trail, and remnants located on public and private properties. These areas are monitored and maintained to control invasive species and to preserve native species populations. Maps and species list of pioneer cemeteries and the Praeri Rail Trail can be found in the appendices.

Vegetation Types for Specific Uses

Story County IRVM practices and promotes the use of native plants indigenous to Story County to protect the genetic integrity of the native plant community. Local remnant prairie seed is harvested to add diversity to roadside and natural area plantings.

Cool season grass species are used where sight distance issues, including intersections and shoulders, occur. Heavily traveled roadways, farm-to-market roads, and shoulders will be planted to allow for a clear line of sight into untraveled portions of the roadway. Shoulder plantings will vary based on right-of-way width and grade of foreslopes.

Lawn grass species will be used in cases of rural/urban interfaces, including in roadsides where owners previously mowed areas adjacent to their property.

Work Area Types

Paved and asphalt roadways are prioritized for management of noxious weeds and encroaching brush. Seeding projects and associated maintenance and management vary by construction projects (urban vs. rural), size and accessibility, location, traffic flow, etc.

Annual Operations

January- March

- Cut trees and burn piles along open ditches in Story County drainage districts
- Promote buffer strips along open ditches
- Service and repair equipment
- Plant hand-harvested and combine-run seed in natural areas
- Prepare weed commissioner report. annual report to SCC Board, quarterly report for Story County Board of Supervisors
- Complete office duties and correspondence; interview and hire seasonal staff

March-April

- Attend Weed Commissioner's Conference
- Complete private lands seed plan preparation for CRP
- Distribute seed with Pheasants Forever; rent seed drills
- Complete spring seeding
- Perform prescribed burning of right-of-way and natural areas
- Administer LRTF Grants; plan safety meetings, submit levy amounts
For drainage district work; prepare quarterly report for Story County Board of Supervisors
- Complete chemical inventory

April-October

- Perform seeding, erosion control projects and bare ground treatment on select blacktop roads

- Complete weed commissioner duties
- Review LRTF grant applications
- Perform noxious weed control, drainage district brush control, right-of-way brush control, and planting maintenance (mowing)
- Maintain and repair equipment
- Prepare quarterly report for Story County Board of Supervisors
- Attend roadside conference

October-December

- Lead volunteer prairie harvest events at Doolittle Prairie
- Harvest seed on three Story County seed nurseries
- Conduct fall burning and frost seeding
- Repair and maintain equipment
- Cut trees and burn piles in drainage districts
- Promote buffer strips along open ditches

Special Projects

American Kestrel Program

The Story County IRVM department has maintained and monitored 20 American Kestrel nesting boxes along county right-of-ways since 1997. These boxes are built by volunteer organizations and installed on utility poles (with permission). Boxes are monitored throughout the nesting season. Use rate has remained at an average of 90% since the program's inception.

Private Lands Program

Story County Conservation has always worked with producers and county residents interested in putting their land into CRP programs and provides various seed preparation and planting equipment for rent. This equipment was purchased with county funds and with the help of Story County Pheasants Forever. Story County also offers consultation to CRP enrollees on seed bed preparation, seed mixes, and burn plans. IRVM also works with the Story County Pheasants Forever Chapter and NRCS to order seed for land going into CRP.

Drainage District Maintenance

Story County IRVM began managing trees and brush along Story County open ditches on February 19, 1999 in accordance with Iowa Code 468.126 regarding. A working group, including IRVM staff, SCC director, Story County engineer, was assembled to set out a classification system, discuss buffer strips, and request proposals for spraying. The drainage district program was reinvigorated in 2012 when the county hired a second full-time employee for IRVM to manage work in the drainage districts. Story County IRVM now supervises and directs contract work, tree removal, and brush maintenance along open ditches.

Story County Gateway Parks

Story County IRVM has networked with local communities to plant and manage native gateway plantings. This has included seed mix consultation, grant writing assistance, and post-planting management.

Vegetation Establishment

The IRVM program plants an average of 50 acres of roadsides annually. Planting activities follow construction projects including road re-grades, drainage improvement, and culvert/bridge replacement. Vegetation establishment after road construction and maintenance projects is essential for the health of the roadside. Each site is inspected, and management decisions are made based on the site location, conditions, and concerns for soil erosion. It is the purpose of Story County IRVM to provide an efficient, successful, and visually appealing planting in right-of-way projects.

Story County IRVM's program assists Conservation staff in planting operations in natural and wildland areas as needed.

Seeding Techniques

Sites may be prepared with a rake, drag, or disk and cultipacked to firm the soil and break up clods. Seed will primarily be planted using a hydroseeder due to ease of application and benefit of erosion protection.

A typical application involves a process where seed is directly applied with mulch at 1,500 lbs./acre; however, rates may vary depending on site conditions and other factors. Other methods, including hand or machine broadcasting and drilling or incorporation with a rake, harrow, or cultipacker can also be used.

Depending on the characteristics of the site and seeding method used, seed and soil will be held in place using erosion control blankets (RECP) or hydromulch. Nurse crop seed (oats, winter wheat, annual rye, etc.) will be included in the seed mix to help control erosion. Contractors and county personnel will be encouraged to minimize creation of erosive grades.

When and where possible, roadside construction projects will be seeded with mixes of native grass and wildflower species. When necessary, mixes will be tailored to the characteristics of a site (e. g., soil moisture, safety/maintenance considerations). Each planting is recorded in ArcGIS as well as on a paper record. See appendices for planting record example.

Prescribed Fire

Prescribed fire is recognized as a valuable tool in brush and invasive plant control and is used to enhance and maintain native plant communities. Story County recognizes the potential hazards relating to prescribed fire. Therefore, all burn crew personnel are required to have a minimum certification in the National Wildfire Coordinating Group's S130 and S190 basic fire fighter and fire behavior courses.

Story County IRVM conducts prescribed fire in natural areas, wildland areas, seed nurseries, prairie remnants, plantings, and along roadside ditches.

Prescribed fire plans are completed in advance; burn records for all sites are transferred to Arc GIS. See appendices for burn plan example.

Mowing

Story County IRVM will mow new roadside plantings to stimulate growth and reduce weed competition. Spot mowing will also be done to remove sight distance issues and to control brush and noxious weeds in the right of way.

Secondary Roads personnel mow a 7-foot swath on roadway shoulders two or three times a year to control tall grass.

Brush Trimming, Cutting, and Grinding

In accordance with Story County's brush policy, IRVM and Secondary Roads personnel are often required to trim and cut woody vegetation in the rights of way. This is done for a variety of reasons including sight distance, snow trapping, and road encroachment. Story County IRVM utilizes a boom mower, chainsaws, and hand tools to eliminate problems created by woody vegetation.

Throughout the winter months, Secondary Roads personnel may mow brush with a large grinder. A copy of the Story County Brush Policy can be found in the appendices.

Sight Distance Issues

The safety of motorists is the number one priority of the Story County IRVM department. Sight distant hazards develop due to overgrowth of vegetation in right of ways, near intersections, and around road signage. Sight distance reports are directed from the county engineer's office to IRVM for inspection. Once identified, action is taken immediately by either IRVM staff or Secondary Roads staff to remove hazards.

Weed Commissioner Duties

Since 1991, the Story County Board of Supervisors has appointed the vegetation management biologist as Story County's weed commissioner. Story County's standard operating procedures are based on Iowa Code Chapter 317.3. In cases where noxious weeds and other undesirable plants are deemed to be a problem, the weed commissioner makes an onsite visit and attempts to communicate directly with the landowner/tenant. If a meeting can't be arranged, contact is made via telephone communication. In all cases, a certified letter is sent for tracking and record keeping purposes. The weed commissioner may serve as liaison between landowners and spray contractors to reach necessary management goals. In some cases, this may result in Story County IRVM performing contract labor, and landowners are billed accordingly. Special efforts are made to educate landowners and operators in the control of undesirable species.

Noxious Weeds

Story County IRVM promotes the safe and wise use of pesticides. Pesticide application equipment is calibrated throughout each spray season. A spot spray program is utilized to manage noxious weeds and other invasive plants. All hard surface roads, connector routes, and farm-to-market corridors are prioritized. Areas on gravel roads and natural areas are dealt with on a case-to-case basis. Annually, staff covers an average of 200 centerline miles for noxious weed control.

Story County IRVM assists Conservation staff in the control of noxious and invasive plants in natural and wildland areas as needed.

Bare Ground Herbicide Application

Application of bare ground herbicide is used to control pre-emergent and emergent vegetation. Graveled shoulders along hard surface roads are sprayed to assist in maintenance activities and clearly define the shoulder edge. Graveled county parking lots and equipment storage areas may also be sprayed to control vegetation. Special equipment is used in this application to minimize any off-target drift. Selection of chemicals is based on label constraints and residual effects on the environment. Application areas are monitored to document herbicide effectiveness and impact upon target and non-target species. Areas designated for bare ground application will be determined by the roadside vegetation management biologist. Application of bare ground herbicide is used on an average of 20 centerline miles per year. An additional six acres of Secondary Roads facilities/parking lots are sprayed annually to prevent weed growth.

Tree and Brush Control (Chemical)

Story County's IRVM program controls woody vegetation within the right of way to improve sight distance around road signs and intersections, reduce snow traps, and improve conditions that might impede the maintenance of the right of way.

Staff uses foliar spray in a variety of equipment in late summer as needed. A handgun spray application has proven to reduce herbicide use and effectively control brush. Chemicals used are based on effectiveness and their adverse effect on the surrounding landscape. All brush inside the right of way is treated, except for brush taller than 10 feet or trees that can't be effectively treated without causing damage outside the right of way (i.e. trees in fence lines or brush directly in front of farmsteads and sensitive areas). Native shrub species are typically not treated if shrubbery does not affect the sight of motorists.

Contract spraying has been a successful option used in conjunction with Story County IRVM's brush program.

Basal Bark

Basal bark herbicide may be used to control brush species in certain areas in order to reduce collateral damage.

Story County IRVM Spray Policy

Products and rates used for chemical control of target species is at the discretion of the roadside vegetation biologist and are evaluated regularly. All employees who mix and apply pesticides, as required by the duties of their job, shall be certified according to Chapter 206 of the Iowa Pesticide Act, as administered by the Iowa Department of Agriculture and Land Stewardship (IDALS). No employee may apply any product required to be applied by a certified pesticide applicator without having the required training and current certification. Employees shall maintain their certified pesticide applicator status by re-testing or by attending continuing education through approved instructional courses as set forth by the Iowa Department of Agriculture and Land Stewardship in the rules for a Commercial Pesticide Applicator certification. Certification in Categories 1A and 6 will be required to applying herbicide in the right of way.

Environmental factors are recorded at the start and end of every application. Spray records are filled out for each herbicide application completed by IRVM staff and kept for a minimum of three years. See appendices for spray record example.

Drainage District Maintenance Program

Drainage districts in Story County cover 221,368 acres (60 percent of the county). Drainage tiles and open ditches of 122 districts are maintained by IRVM, Secondary Roads, and some private contractors. The IRVM program is responsible for the observation and management of approximately 65 linear miles of open ditch stretching across the county.

A survey was conducted in 2013 to classify and assess the condition of the open ditch system in Story County. Due to limited maintenance, the 100-year-old drainage systems had become overgrown with trees and other woody vegetation. Many of these open ditches suffered from erosion issues, including ditch bank collapse, as a result of poor farming practices and overgrown woody vegetation. The integrity of some ditches has become compromised by encroaching woody vegetation and these collapsed ditch banks.

The Story County IRVM program's primary objective is to keep the open ditch bank free of woody vegetation by the use of various mechanical and chemical methods. A conservation-minded approach is used during all aspects of drainage district maintenance. This includes selecting the management technique that best accomplishes the operational need of the project while not neglecting soil erosion, water quality, and wildlife habitat. Native shrub species are left where applicable, as they do not impede water flow and provide excellent nesting cover.

IRVM presently has limited access to Story County's drainage districts due to close farming

practices. Promoting buffer strips and access lanes is an ongoing process. Staff works with landowners, operators, and other government agencies to establish some ground cover directly adjacent to open ditches. This improves efficiency of maintenance work while controlling direct and indirect sediment and nutrient loading in the water system.

Staff clear cuts and removes stumps of all large trees when possible; small, brushy vegetation less than three inches in diameter is left for foliar treatment. Trees are stacked in a suitable area adjacent to the open ditch to minimize farm production disturbance. Piles are hauled to a designated burn pile location or burned on site when appropriate.

Follow-up vegetation management maintenance includes spraying re-sprouts as needed. Staff uses only aquatic-certified herbicide in foliar spray for the control of woody species.

Reports are filled out for any drainage district work completed. Claims are filed with the Story County Drainage District clerk for reimbursement.

Material Procurement

Seed

Native seed demands are typically estimated a year in advance, and requests are made to the state roadside office to participate in their seed distribution to counties funded by Transportation Alternatives Program (TAP) dollars. Additional seed is harvested by hand and machine from remnants to supplement seed inventory. Cool season and turf mixes are purchased from local vendors on an as-needed basis.

Erosion Control Products

Story County IRVM solicits three bids when purchasing materials for annual seeding projects. Bids are requested throughout the year from local distributors to meet seeding specifications and needs.

Herbicide/Adjuvants

Products are purchased from various vendors and suppliers throughout the year based on product selection, price, and availability.

Facilities/Equipment

In 1998, Story County IRVM administrative operations moved to the Story County Engineers building in Nevada. Field operations remained in north of Nevada at the former county home site.

Utilizing county funds and a LRTF grant, a 40' x 40' insulated building was built in 2009. The new building provided a shop space and a 12' x 15' temperature-controlled, rodent-free seed storage room. By controlling the temperature, germination and viability of seed is sustained at a reasonable level for native grasses and wildflowers. A larger seed storage room will be required if there is an increase in the need for TAP or locally harvested seed for annual operations. A

large, gravel pad is located south of building; it could be used as a site for a cold storage building.

A 50'x 60' pole building is used to shelter the majority of IRVM equipment. With the increase of equipment used for operations, space in this building has become limited.

Herbicide is stored in a 10' x 10' shed during the spray season under a spill-proof chemical containment system. During the winter months, the opened containers are kept in a chemical cabinet; the sealed containers are kept on a spill-proof chemical pallet in the shop. Plans are to build a better ventilated herbicide storage shed in the future.

A two-inch water fill station is used to fill up sprayers and the hydroseeder. The bracing pole holding the water line and the equipment pad is to be updated in 2017.

An equipment inventory can be found in the appendices.

Story County LRTF Funding History

Story County LRTF Funding History through FY 2016

DOT Project Number	Award	Fiscal Year	Description
90-85-LRTF-201	\$ 6,000.00	1992	Prairie restoration - 2 miles
90-85-LRTF-202	\$12,000.00	1992	Native grasses and wildflowers
90-00-LRTF-S35	\$ 3,029.41	1995	Plantings - Highway
90-85-LRTF-601	\$15,000.00	1996	Equipment
90-85-LRTF-301	\$ 1,500.00	2003	Seed storage room
90-85-LRTF-401	\$ 4,200.00	2004	Equipment- Winona Atrium variable speed hammer mill
90-85-LRTF-601	\$14,500.00	2006	Equipment - Diamond 23' boom/63" flailmower
90-85-LRTF-701	\$10,500.00	2007	Equipment - Slip-In fire rig
90-85-LRTF-801	\$ 6,000.00	2008	Equipment - GeoXT GPS system and software
90-85-LRTF-901	\$ 400.00	2009	Continuing education
90-85-LRTF-902	\$13,000.00	2009	Storage - Equipment and seed
90-85-LRTF-001	\$22,000.00	2010	Acquisition & protection of remnant prairie and adjacent rights-of-way
90-85-LRTF-002	\$ 6,000.00	2010	Equipment - Utility vehicle
90-85-LRTF-101	\$ 1,174.00	2011	Equipment- GPS
90-85-LRTF-102	\$17,000.00	2011	Equipment - Injection sprayer
90-85-LRTF-301	\$ 900.00	2013	Equipment - Fire
90-85-LRTF-302	\$ 9,000.00	2013	Equipment - Batwing mower
90-85-LRTF-303	\$ 2,400.00	2013	Equipment - GPS wireless upgrade
90-85-LRTF-304	\$ 4,680.00	2013	1-35 overlook brush removal
90-85-LR14-(327)	\$ 2,252.00	2014	Pesticide storage cabinet
90-85-LR14-(325)	\$ 2,500.00	2014	Equipment - Work zone lighting
90-85-LR14-(328)	\$ 3,000.00	2014	Educational signage
90-00-LR14-(206)	\$ 5,850.00	2014	1-35 scenic overlook brush removal
90-85-LR14-(326)	\$ 7,306.00	2014	Equipment Loader
90-85-LR15-(334)	\$24,000.00	2015	Equipment Hydroseeder

Total LRTF Funding Awarded \$194,191.41

Story County IRVM Annual Data 1987 - 2015

Year	Roadside Burns (sites)	Roadside Burns (acres)	Planting # sites	Planting # acres	Roadside Spray-weeds (mi)	Brush Spray (mi)	Equipment Rentals # Landowners	Equipment Rentals # Acres	Other Plantings acres	Custom Planting	Seed Harvest (lbs.)	Mowing (sites)	Basal Bark (mi)	Brush Cutting (sites)	Volunteer Hrs.	DD Mgt. (mi)	DD Mgt. (Revenue)
1987																	
1988	3		27	20	53												
1989	6	4	64	30	182												
1990	10	18	77	17	175							100		28			
1991	28	36	79	41	92	20						250		30			
1992	23	30	55	62	142	45						140		69			
1993	6	17	61	32	375	36											
1994	18	40	64	90	272	6.5											
1995	7	31	59	55	362							44					
1996	15	25	45	20	232							15		70			
1997	16	26	69	45	227	123.5								46			
1998	36	34	54	51	218	177						15		117			
1999		21	60	45	325												
2000	21	57	92	53	303	114	46	396					5	24			
2001	6	13	35	53	441	180	51	487			500	15	21	12			
2002	7	32	35	70	542	157.5	59	811			1540		42				
2003	12	40	31	31	450	200	50	475.5			975		70				
2004	11	16	52	24	353	206.5	42	710			950		6.5				
2005	9	17.5	39	30	270	250	40	363.5		29	350		6				
2006	14	21.5	53	28.2	337	243.5	37	462		40	557		0	1			
2007	14	27.75	15	10.85	278	146	53	437.6		41	560						
2008	6	10	27	45	215	38	14	180		13.5	190		5				
2009	5	10	46	44.55	220	30.25	24	287		4	120		2.25		120		
2010	8	16	37	31	201	29	26	369		2	120		5				
2011	7	20.5	46	48.75	170	7.5	8	112		13	133		0		195.25	1.42	\$ 4,572.16
2012	1	0.5	48	66.85	202.5	23.25	10	63			300		0		73.5	6.78	\$13,961.25
2013	5	15.25	51	24	290.5	138.5	10	79.6	36		240		0		55.5	4	\$25,459.40
2014	10	16.75	56	42	194.5	71.5	16	201	7.75		220		0	0	85.5	1	\$26,513.46

Average 11.7 22.9 51.0 41.1 263.8 125.6 41.6 461.0 21.9 20.4 482.5 82.7 11.6 49.8 111.1 3.3
 Total 304 542.75 1377 1110.2 7122.5 2243.5 416 4609.6 43.75 142.5 6755 579 162.75 397 529.75 16.5 \$70,506.27

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.
2. *Counties may adopt plans.* A county may adopt an integrated roadside vegetation management plan consistent with the integrated roadside vegetation management plan adopted by the department under subsection 1.
3. *Integrated roadside vegetation management technical advisory committee.*
 - a. The director of the department shall appoint members to an integrated roadside vegetation management technical advisory committee which is created to provide advice on the development and implementation of a statewide integrated roadside vegetation management plan and program and related projects. The department shall report annually in January to the general assembly regarding its activities and those of the committee. Activities of the committee may include, but are not limited to, providing advice and assistance in the following areas:
 - (1) Research efforts.
 - (2) Demonstration projects.
 - (3) Education and orientation efforts for property owners, public officials, and the general public.
 - (4) Activities of the integrated roadside vegetation management coordinator for integrated roadside vegetation management.
 - (5) Reviewing applications for funding assistance.
 - (6) Securing funding for research and demonstrations.
 - (7) Determining needs for revising the state weed law and other applicable Code

sections.

- (8) Liaison with the Iowa state association of counties, the Iowa league of cities, and other organizations for integrated roadside vegetation management purposes.
 - b. The director may appoint any number of persons to the committee but, at a minimum, the committee shall consist of all of the following:
 - (1) One member representing the utility industry.
 - (2) One member from the Iowa academy of sciences.
 - (3) One member representing county government.
 - (4) One member representing city government.
 - (5) Two members representing the private sector including community interest groups.
 - (6) One member representing soil conservation interests.
 - (7) One member representing the department of natural resources.
 - (8) One member representing county conservation boards.
 - c. Members of the committee shall serve without compensation, but may be reimbursed for allowable expenses from the living roadway trust fund created under section 314.21. No more than a simple majority of the members of the committee shall be of the same gender as provided in section 69.16A. The director of the department shall appoint the chair of the committee and shall establish a minimum schedule of meetings for the committee.
4. *Integrated roadside vegetation management coordinator.* The integrated roadside vegetation management coordinator shall administer the department's integrated roadside vegetation management plan and program. The department may create the position of integrated roadside vegetation management coordinator within the department or may contract for the services of the coordinator. The duties of the coordinator include, but are not limited to, the following:
- a. Conducting education and awareness programs.
 - b. Providing technical advice to the department and the department of natural resources, counties, and cities.
 - c. Conducting demonstration projects.
 - d. Coordinating inventory and implementation activities.
 - e. Providing assistance to local community-based groups for undertaking community entryway projects.
 - f. Being a clearinghouse for information from Iowa projects as well as from other states.
 - g. Periodically distributing information related to integrated roadside vegetation management.
 - h. General coordination of research efforts.
 - i. Other duties assigned by the director of transportation.
5. *Education programs.* The department shall develop educational programs and provide educational materials for the general public, landowners, governmental employees, and board members as part of its program for integrated roadside vegetation management. The educational program shall provide all of the following:
- a. The development of public service announcements and television programs about the importance of roadside vegetation in Iowa.
 - b. The expansion of existing training sessions and educational curriculum materials for county weed commissioners, government contract sprayers, maintenance staff, and others to include coverage of integrated roadside management topics such as basic plant species identification, vegetation preservation, vegetation inventory techniques,

vegetation management and planning procedures, planting techniques, maintenance, communication, and public relations. County and municipal engineers, public works staffs, planning and zoning representatives, parks and habitat managers, and others should be encouraged to participate.

- c. The conducting of statewide and regional conferences and seminars about integrated roadside vegetation management, community entryways, scenic values of land adjoining roadsides, and other topics relating to roadside vegetation.
 - d. The preparation, display, and distribution of a variety of public relations material, in order to better inform and educate the traveling public on roadside vegetation management activities. The public relations material shall inform motorists of a variety of roadside vegetation issues including all of the following:
 - (1) Benefits of various types of roadside vegetation.
 - (2) Long-term results expected from planting and maintenance practices.
 - (3) Purposes for short-term disturbances in the roadside landscapes.
 - (4) Interesting aspects of the Iowa landscape and individual landscape regions.
 - (5) Other aspects relating to wildlife and soil erosion.
 - e. Preparation and distribution of educational material designed to inform adjoining property owners, farm operators, and others of the importance of roadside vegetation and their responsibilities of proper stewardship of that vegetation resource.
6. *Research and demonstration projects.* The department, as part of its plan to provide integrated roadside vegetation management, shall conduct research and feasibility studies including demonstration projects of different kinds at a variety of locations around the state. The research and feasibility studies may be conducted in, but are not limited to, any of the following areas:
- a. Cost effectiveness or comparison of planting, establishing and maintaining alternative or warm-season, native grass and forb roadside vegetation and traditional cool-season nonnative vegetation.
 - b. Identification of the relationship that roadsides and roadside vegetation have to maintaining water quality, through drainage wells, sediment and pollutant collection and filtration, and other means.
 - c. Impacts of burning as an alternative vegetation management tool on all categories of roads.
 - d. Techniques for more quickly establishing erosion control and permanent vegetative cover on recently disturbed ground as well as interplanting native species in existing vegetative cover.
 - e. Effectiveness of techniques for reduced or selected use of herbicides to control weeds.
 - f. Identification of cross section and slope steepness design standards which provide for motorist safety as well as for improved establishment, maintenance, and replacement of different types of vegetation.
 - g. Identification of a uniform inventory and assessment technique which could be used by many counties in establishing integrated roadside management programs.
 - h. Equipment innovations for seeding and harvesting grasses in difficult terrain settings, roadway ditches, and fore-slopes and back-slopes.
 - i. Identification of the perceptions of motorists and landowners to various types of roadside vegetation and configuration of plantings.
 - j. Market or economic feasibility studies for native seed, forb, and woody plant production

- and propagation.
- k. Impacts of vegetation modifications on increasing or decreasing wildlife populations in rural and urban areas.
 - l. Effects of vegetation on the number and location of wildlife road-kills in rural and urban areas.
 - m. Costs to the public for improper off-site resource management adjacent to roadsides.
 - n. Advantages, disadvantages, and techniques of establishing pedestrian access adjacent to highways and their impacts on vegetation management.
 - o. Identification of alternative techniques for snow catchment on farmland adjacent to roadsides.
7. *Gateways program.* The department shall develop a gateways program to provide meaningful visual impacts including major new plantings at the important highway entry points to the state and its communities. Substantial and distinctive plantings shall also be designed and installed at these points. Creative and artistic design solutions shall be sought for these improvements. Communications about these projects shall be provided to local groups in order to build community involvement, support, and understanding of their importance. Consideration shall be given to a requirement that gateways projects produce a local match or contribution toward the overall project cost.
8. *Vegetation inventories and strategies.*
- a. The department shall coordinate and compile integrated roadside vegetation inventories, classification systems, plans, and implementation strategies for roadsides. Areas of increased program and project emphasis may include, but are not limited to, all of the following:
 - (1) Additional development and funding of state gateways projects.
 - (2) Accelerated replacement of dead and unhealthy plants with native and hardy trees and shrubs.
 - (3) Special interest plantings at selected highly visible locations along primary and interstate highways.
 - (4) Pilot and demonstration projects.
 - (5) Additional snow and erosion control plantings.
 - (6) Welcome center and rest area plantings with native and aesthetically interesting species to create mini-arboretums around the state.
 - b. The department shall coordinate and compile a reconnaissance of lands to develop an inventory of sites having the potential of being harvested for native grass, forb, and woody plant material seed and growing stock. Highway right-of-ways, parks and recreation areas, converted railroad right-of-ways, state board of regents' property, lands owned by counties, and other types of public property shall be surveyed and documented for seed source potential. Sites volunteered by private organizations may also be included in the inventory. Inventory information shall be made available to state agencies' staffs, county engineers, county conservation board directors, and others.

Section History: Recent Form

89 Acts, ch 246, §6; 95 Acts, ch 3, §2; 2010 Acts, ch 1061, §107
Referred to in §314.13, §314.21, §317.11

CHAPTER 317 WEEDS

317.1 DEFINITIONS.

317.1A NOXIOUS WEEDS.

317.2 STATE BOTANIST.

317.3 WEED COMMISSIONER -- STANDARDS FOR NOXIOUS WEED CONTROL.

317.4 DIRECTION AND CONTROL.

317.5 WEEDS IN ABANDONED CEMETERIES.

317.6 ENTERING LAND TO DESTROY WEEDS -- NOTICE.

317.7 REPORT TO BOARD.

317.8 DUTY OF SECRETARY OF AGRICULTURE OR SECRETARY'S DESIGNEE.

317.9 DUTY OF BOARD TO ENFORCE.

317.10 DUTY OF OWNER OR TENANT.

317.11 WEEDS ON ROADS -- HARVESTING OF GRASS.

317.12 WEEDS ON RAILROAD OR PUBLIC LANDS AND GRAVEL PITS.

317.13 PROGRAM OF CONTROL.

317.14 NOTICE OF PROGRAM.

317.15 LOSS OR DAMAGE TO CROPS.

317.16 FAILURE TO COMPLY.

317.17 ADDITIONAL NOXIOUS WEEDS.

317.18 ORDER FOR WEED CONTROL ON ROADS.

317.19 ROAD CLEARING APPROPRIATION.

317.20 EQUIPMENT AND MATERIALS -- USE ON PRIVATE PROPERTY.

317.21 COST OF WEED DESTRUCTION.

317.22 DUTY OF HIGHWAY MAINTENANCE PERSONNEL.

317.23 DUTY OF COUNTY ATTORNEY.

317.24 PUNISHMENT OF OFFICER.

317.25 TEASEL, MULTIFLORA ROSE, AND PURPLE LOOSESTRIFE PROHIBITED -- EXCEPTIONS.

317.26 ALTERNATIVE REMEDIATION PRACTICES.

317.1 DEFINITIONS.

As used in this chapter, unless the context otherwise requires, "*book*", "*list*", "*record*", or "*schedule*" kept by a county auditor, assessor, treasurer, recorder, sheriff, or other county officer means the county system as defined in section 445.1.

Section History: Recent Form

2000 Acts, ch 1148, §1

317.1A NOXIOUS WEEDS.

The following weeds are hereby declared to be noxious and shall be divided into two classes, namely:

1. Primary noxious weeds, which shall include quack grass (*Agropyron repens*), perennial sow thistle (*Sonchus arvensis*), Canada thistle (*Cirsium arvense*), bull thistle (*Cirsium lanceolatum*), European morning glory or field bindweed (*Convolvulus arvensis*), horse nettle (*Solanum carolinense*), leafy spurge (*Euphorbia esula*), perennial pepper-grass

(*Lepidium draba*), Russian knapweed (*Centaurea repens*), buckthorn (*Rhamnus*, not to include *Rhamnus frangula*), and all other species of thistles belonging in genera of *Cirsium* and *Carduus*.

2. Secondary noxious weeds, which shall include butterprint (*Abutilon theophrasti*) annual, cocklebur (*Xanthium commune*) annual, wild mustard (*Brassica arvensis*) annual, wild carrot (*Daucus carota*) biennial, buckhorn (*Plantago lanceolata*) perennial, sheep sorrel (*Rumex acetosella*) perennial, sour dock (*Rumex crispus*) perennial, smooth dock (*Rumex altissimus*) perennial, poison hemlock (*Conium maculatum*), multiflora rose (*Rosa multiflora*), wild sunflower (wild strain of *Helianthus annuus* L.) annual, puncture vine (*Tribulus terrestris*) annual, teasel (*Dipsacus*) biennial, and shattercane (*Sorghum bicolor*) annual.

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. 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.

Section History: Early Form

[S13, § 1565-b; C24, 27, 31, 35, § 4818; C39, § 4829.01; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.1]

Section History: Recent Form

85 Acts, ch 171, §1; 2000 Acts, ch 1154, §20
C2001, §317.1A
See also § 199.1

317.2 STATE BOTANIST.

The secretary of agriculture shall appoint as state botanist the head of the botany and plant pathology section of the Iowa agricultural experiment station whose duty shall be to co-operate in developing a constructive weed eradication program.

Section History: Early Form

[C39, § 4829.02; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.2]

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 History: Early Form

[S13, § 1565-c, -d, -f; C24, 27, § 4817; C31, 35, § 4817, 4817-d1; C39, § 4829.03; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.3]

Section History: Recent Form

83 Acts, ch 123, § 119, 209; 85 Acts, ch 160, §1; 94 Acts, ch 1173, §14
Referred to in § 331.321

317.4 DIRECTION AND CONTROL.

As used in this chapter, "commissioner" means the county weed commissioner or the commissioner's deputy within each county. Each commissioner, subject to direction and control by the county board of supervisors, shall supervise the control and destruction of all noxious weeds in the county, including those growing within the limits of cities, within the confines of abandoned cemeteries, and along streets and highways unless otherwise provided. A commissioner shall notify the department of public safety of the location of marijuana plants found growing on public or private property. A commissioner may enter upon any land in the county at any time for the performance of the commissioner's duties, and shall hire the labor and equipment necessary subject to the approval of the board of supervisors.

Section History: Early Form

[S13, § 1565-c, -d, -f; C24, 27, 31, 35, § 4817; C39, § 4829.04; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, S81, § 317.4; 81 Acts, ch 117, § 1047]

Section History: Recent Form

83 Acts, ch 123, § 120, 209; 90 Acts, ch 1179, § 2

317.5 WEEDS IN ABANDONED CEMETERIES.

The commissioner shall control the weeds growing in abandoned cemeteries in the county as needed. Spraying for control of weeds shall be limited to those circumstances when it is not practical to mow or otherwise control the weeds.

Section History: Early Form

[C58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.5]

Section History: Recent Form

89 Acts, ch 246, §7

317.6 ENTERING LAND TO DESTROY WEEDS -- NOTICE.

If there is a substantial failure by the owner or person in possession or control of any land to comply with any order of destruction pursuant to the provisions of this chapter, the county weed commissioner, including the weed commissioner's deputies, or employees acting under the weed commissioner's direction may enter upon any land within the commissioner's county for the purpose of destroying noxious weeds. The entry may be made without the consent of the landowner or person in possession or control of the land. However, the actual work of destruction shall not be commenced until five days after the landowner and the person in possession or control of the land have been notified. The notice shall state the facts relating to failure of compliance with the county program of weed destruction order or orders made by the board of supervisors. The notice shall be delivered by personal service on the owner and persons in possession and control of the land. The personal service may be served by the weed commissioner or any person designated in writing by the weed commissioner. However, in lieu of personal service, the weed commissioner may provide that the notice be delivered by certified mail. A copy of the notice shall be filed in the office of the county auditor. The last known address of the owner or person in possession or control of the land may be ascertained, if necessary, from the last tax list in the county treasurer's office. Where any person owning land within the county has filed a written instrument in the office of the county auditor designating the name and address of its agent, the notice may be delivered to that agent. In computing time for notice, it shall be from the date of service as evidenced on the return of service. If delivery is made by certified mail, it shall be from the date of mailing.

Section History: Early Form

[S13, § 1565-c, -d, -f; C24, § 4817; C27, 31, 35, § 4817, 4823-b1; C39, § 4829.05, 4829.06; C46, § 317.5, 317.6; C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.6]

Section History: Recent Form

2005 Acts, ch 39, §1
Referred to in § 317.16

317.7 REPORT TO BOARD.

Each weed commissioner shall for the territory under the commissioner's jurisdiction on or before the first day of November of each year make a written report to the board of supervisors. Said report shall state:

1. The name and location of all primary noxious weeds, and any new weed which appears to be a serious pest.
2. A detailed statement of the treatment used, and future plans, for eradication of weeds on each infested tract on which the commissioner has attempted to exterminate weeds, together with the costs and results obtained.
 - i. A summary of the weed situation within the jurisdiction, together with suggestions and recommendations which may be proper and useful, a copy of which shall be forwarded to the state secretary of agriculture.

Section History: Early Form

[S13. § 1565-c, -d, -f; C24, 27, 31, 35, § 4817; C39, § 4829.07; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.7]

317.8 DUTY OF SECRETARY OF AGRICULTURE OR SECRETARY'S DESIGNEE.

The secretary of agriculture or the secretary's designee is vested with the following duties, powers and responsibilities:

1. The secretary or the secretary's designee shall serve as state weed commissioner, and shall co-operate with all boards of supervisors and weed commissioners, and shall furnish blank forms for reports made by the supervisors and commissioners.
2. The secretary or the secretary's designee may, upon recommendation of the state botanist, temporarily declare noxious any new weed appearing in the state which possesses the characteristics of a serious pest.
3. The secretary or the secretary's designee shall aid the supervisors in the interpretation of the weed law, and make suggestions to promote extermination of noxious weeds.
4. The secretary or the secretary's designee shall aid the supervisors in enforcement of the weed law as it applies to all state lands, state parks and primary roads, and may impose a maximum penalty of a ten dollar fine for each day, up to ten days, that the state agency in control of land fails to comply with an order for destruction of weeds made pursuant to this chapter.

Section History: Early Form

[S13. § 1565-c, -d, -f; C24, 27, 31, 35, § 4817; C39, § 4829.08; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.8]

Section History: Recent Form

85 Acts, ch 171, §2; 87 Acts, ch 115, §48

317.9 DUTY OF BOARD TO ENFORCE.

The responsibility for the enforcement of the provisions of this chapter shall be vested in the board of supervisors as to all farm lands, railroad lands, abandoned cemeteries, state lands and state parks, primary and secondary roads; roads, streets and other lands within cities unless

otherwise provided.

Section History: Early Form

[S13, § 1565-c, -d, -f; C24, 27, 31, 35, § 4817; C39, § 4829.09; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.9]

317.10 DUTY OF OWNER OR TENANT.

Each owner and each person in the possession or control of any lands shall cut, burn, or otherwise destroy, in whatever manner may be prescribed by the board of supervisors, all noxious weeds thereon as defined in this chapter at such times in each year and in such manner as shall be prescribed in the program of weed destruction order or orders made by the board of supervisors, and shall keep said lands free from such growth of any other weeds, as shall render the streets or highways adjoining said land unsafe for public travel.

Section History: Early Form

[SS15, § 1565-a; C24, 27, 31, 35, § 4819; C39, § 4829.10; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.10]

317.11 WEEDS ON ROADS -- HARVESTING OF GRASS.

The county boards of supervisors and the state department of transportation shall control noxious weeds growing on the roads under their jurisdiction. Spraying for control of noxious weeds shall be limited to those circumstances when it is not practical to mow or otherwise control the noxious weeds. Nothing under this chapter shall prevent the landowner from harvesting, in proper season, the grass grown on the road along the landowner's land except for vegetation maintained for highway purposes as part of an integrated roadside vegetation management plan which is consistent with the objectives in section 314.22.

Section History: Early Form

[S13, § 1565-c, -d, -f; SS15, § 1565-a; C24, 27, 31, 35, § 4817, 4819; C39, § 4829.11; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.11]

Section History: Recent Form

89 Acts, ch 246, §8

317.12 WEEDS ON RAILROAD OR PUBLIC LANDS AND GRAVEL PITS.

All noxious weeds on railroad lands, public lands and within incorporated cities shall be treated in such manner, approved by the board of supervisors, as shall prevent seed production and either destroy or prevent the spread of noxious weeds to adjoining lands. Gravel pits infested with noxious weeds shall not be used as sources of gravel for public highways without previous treatment approved by board of supervisors.

Section History: Early Form

[S13, § 1565-c, -d, -f; SS15, § 1565-a; C24, 27, 31, 35, § 4817, 4819; C39, § 4829.12; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.12]

317.13 PROGRAM OF CONTROL.

The board of supervisors of each county may each year, upon recommendation of the county weed commissioner by resolution prescribe and order a program of weed control for purposes of complying with all sections of this chapter. The county board of supervisors of each county may also by adopting an integrated roadside vegetation management plan prescribe and order a program of weed control for purposes of complying with all sections of this chapter. The program for weed control ordered or adopted by the county board of supervisors shall provide that spraying for control of weeds shall be limited to those circumstances when it is not practical to mow or otherwise control the weeds. The program of weed control shall include a program of permits for the burning, mowing, or spraying of roadsides by private individuals. The county board of supervisors shall allow only that burning, mowing, or spraying of roadsides by private individuals that is consistent with the adopted integrated roadside vegetation management plan. This paragraph applies only to those roadside areas of a county which are included in an integrated roadside vegetation management plan.

Section History: Early Form

[S13, § 1565-c, -d; C24, 27, 31, 35, § 4821; C39, § 4829.13; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.13]

Section History: Recent Form

85 Acts, ch 171, §3; 89 Acts, ch 246, §9; 90 Acts, ch 1267, § 36
Referred to in § 317.14

317.14 NOTICE OF PROGRAM.

Notice of any order made pursuant to section 317.13 shall be given by one publication in the official newspapers of the county and shall be directed to all property owners.

Said notice shall state:

1. The time for destruction.
2. The manner of destruction, if other than cutting above the surface of the ground.
3. That unless said order is complied with the weed commissioner shall cause said weeds to be destroyed and the cost thereof will be taxed against the real estate on which the noxious weeds are destroyed.

Section History: Early Form

[S13, § 1565-c, -d; C24, 27, 31, 35, § 4822; C39, § 4829.14; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.14]

317.15 LOSS OR DAMAGE TO CROPS.

The loss or damage to crops or property incurred by reason of such destruction shall be borne by the titleholder of said real estate, unless said real estate shall be sold under contract whereby possession has been delivered to the purchaser, in which event such purchaser shall bear such loss or damage, excepting where a contract has been entered into providing a different adjustment for such loss or damage.

Section History: Early Form

[S13, § 1565-c, -d; C24, 27, 31, 35, § 4822; C39, § 4829.15; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.15]

317.16 FAILURE TO COMPLY.

1. In case of a substantial failure to comply by the date prescribed in any order of destruction of weeds made pursuant to this chapter, the weed commissioner may do any of the following:
 - a. Enter upon the land as provided in section 317.6 and provide for the destruction of the weeds as provided in section 317.6.
 - b. Impose a maximum penalty of a ten dollar fine for each day, up to ten days, that the owner or person in possession or control of the land fails to comply. If a penalty is imposed and the owner or person in possession or control of the land fails to comply, the weed commissioner shall cause the weeds to be destroyed.
 - c. If the weed commissioner enters the land and causes the weeds to be destroyed, the actual cost and expense of cutting, burning, or otherwise destroying the weeds, along with the cost of providing notice and special meetings or proceedings, if any, shall be paid by the county and, together with the additional assessment to apply toward costs of supervision and administration, be recovered by an assessment against the tract of real estate on which the weeds were growing, as provided in section 317.21. Any fine imposed under this section shall be recovered by a similar assessment.

Section History: Early Form

[S13, § 1565-c, -d; C24, 27, 31, 35, § 4823; C39, § 4829.16; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.16]

Section History: Recent Form

83 Acts, ch 123, § 121, 209; 85 Acts, ch 171, §4; 2005 Acts, ch 39, §2
Referred to in § 317.21

317.17 ADDITIONAL NOXIOUS WEEDS.

The board of supervisors shall order the weed commissioner, or commissioners, to destroy or cause to be destroyed any new weeds declared to be noxious by the secretary of agriculture, the cost of which shall be borne by the county.

Section History: Early Form

[C39, § 4829.17; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.17]

317.18 ORDER FOR WEED CONTROL ON ROADS.

The board of supervisors may order all noxious weeds, within the right-of-way of all roads under county jurisdiction to be cut, burned, or otherwise controlled to prevent seed production, either upon its own motion or upon receipt of written notice requesting the action from any residents of the township in which the roads are located, or any person regularly using the roads. The order shall be consistent with the county integrated roadside vegetation management plan,

if the county has adopted such a plan, and the order shall define the roads along which noxious weeds are required to be cut, burned, or otherwise controlled and shall require the weeds to be cut, burned, or otherwise controlled within fifteen days after the publication of the order in the official newspapers of the county or as prescribed in the county's integrated roadside vegetation management plan. The order shall provide that spraying for control of noxious weeds shall be limited to those circumstances when it is not practical to mow or otherwise control the weeds.

Section History: Early Form

[C39, § 4829.18; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.18]

Section History: Recent Form

83 Acts, ch 123, § 122, 209; 85 Acts, ch 171, §5; 89 Acts, ch 246, §10; 98 Acts, ch 1075, §14

317.19 ROAD CLEARING APPROPRIATION.

The board of supervisors may appropriate moneys to be used for the purposes of cutting, burning, or otherwise controlling weeds or brush within the right-of-way of roads under county jurisdiction in time to prevent reseeding or in a manner consistent with the county's roadside vegetation management plan, if the county has adopted such a plan. The moneys appropriated shall not be spent on spraying for control of weeds except in those circumstances when it is not practical to mow or otherwise control the weeds. The board of supervisors may purchase or hire necessary equipment or contract with the adjoining landowner to carry out this section.

Section History: Recent Form

83 Acts, ch 123, § 123, 209; 84 Acts, ch 1219, § 20; 85 Acts, ch 171, §6; 89 Acts, ch 246, §11; 98 Acts, ch 1075, §15

317.20 EQUIPMENT AND MATERIALS -- USE ON PRIVATE PROPERTY.

The board of supervisors may appropriate moneys for the purpose of purchasing weed eradicating equipment and materials to carry out the duties of the commissioner for use on all lands in the county, public or private, and for the payment of the necessary expenses and compensation of the commissioner, and the commissioner's deputies, if any. When equipment or materials so purchased are used on private property within the corporate limits of cities by the commissioner, the cost of materials used and an amount to be fixed by the board of supervisors for the use of the equipment shall be returned by the county treasurer upon the collection of the special assessment taxed against the property. In the certification to the county treasurer by the county auditor this apportionment shall be designated along with the special tax assessed under section 317.21. The equipment and its use are subject to the authorization and direction of the county board of supervisors.

Section History: Recent Form

83 Acts, ch 123, § 124, 209
Referred to in § 331.559

317.21 COST OF WEED DESTRUCTION.

When the commissioner destroys any weeds under the authority of section 317.16, after failure of the landowner responsible to destroy such weeds pursuant to the order of the board of supervisors, the cost of the destruction shall be assessed against the land and collected from the landowner responsible in the following manner:

1. Annually, after the weed commissioner has completed the program of destruction of weeds by reason of noncompliance by persons responsible for the destruction, the board of supervisors shall determine as to each tract of real estate the actual cost of labor and materials used by the commissioner in cutting, burning, or otherwise destroying the weeds, the cost of serving notice, and of special meetings or proceedings, if any. To the total of all sums expended, the board shall add an amount equal to twenty-five percent of that total to compensate for the cost of supervision and administration and assess the resulting sum against the tract of real estate by a special tax, which shall be certified to the county auditor and county treasurer by the clerk of the board of supervisors, and shall be placed upon the tax books, and collected, with interest after delinquent, in the same manner as other unpaid taxes. The tax shall be due on March 1 after assessment, and shall be delinquent from April 1 after due. However, when the last day of March is a Saturday or Sunday, such amount shall be delinquent from the second business day of April. When collected, the moneys shall be paid into the fund from which the costs were originally paid.
2. Before making any such assessment, the board of supervisors shall prepare a plat or schedule showing the several lots, tracts of land or parcels of ground to be assessed which shall be in accord with the assessor's records and the amount proposed to be assessed against each of the same for destroying or controlling weeds during the fiscal year.
3. Such board shall thereupon fix a time for the hearing on such proposed assessments, which time shall not be later than December 15 of the year, and at least twenty days prior to the time thus fixed for such hearing shall give notice thereof to all concerned that such plat or schedule is on file, and that the amounts as shown therein will be assessed against the several lots, tracts of land or parcels of ground described in said plat or schedule at the time fixed for such hearing, unless objection is made thereto. Notice of such hearing shall be given by one publication in official county newspapers in the county in which the property to be assessed is situated; or by posting a copy of such notice on the premises affected and by mailing a copy by certified mail to the last known address of the person owning or controlling said premises. At such time and place the owner of said premises or anyone liable to pay such assessment, may appear with the same rights given by law before boards of review, in reference to assessments for general taxation.

Section History: Early Form

[S13, § 1565-c, -d; C24, 27, § 4824, 4825; C31, 35, § 4824, 4825, 4825-c1, -c2; C39, § 4829.19; C46, § 317.20; C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.21]

Section History: Recent Form

85 Acts, ch 171, § 7; 92 Acts, ch 1016, § 4; 98 Acts, ch 1107, § 7;
2005 Acts, ch 34, § 2, 26
Referred to in § 317.16, 317.20, 331.502, 331.559

317.22 DUTY OF HIGHWAY MAINTENANCE PERSONNEL.

All officers directly responsible for the care of public highways shall make a complaint to the weed commissioners or board of supervisors, if it appears that the provisions of this chapter may not be complied with in time to prevent the blooming and maturity of noxious weeds or the unlawful growth of weeds or marijuana, whether in the streets or highways for which they are responsible or upon lands adjacent to the same.

Section History: Early Form

[S13, § 1565-c, -e; C24, 27, 31, 35, § 4826; C39, § 4829.20; C46, § 317.21; C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.22]

Section History: Recent Form

90 Acts. ch 1179, §3

317.23 DUTY OF COUNTY ATTORNEY.

It shall be the duty of the county attorney upon complaint of any citizen that any officer charged with the enforcement of the provisions of this chapter has neglected or failed to perform the officer's duty, to enforce the performance of such duty.

Section History: Early Form

[C24, 27, 31, 35, § 4828; C39, § 4829.21; C46, § 317.22; C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.23]
Referred to in § 331.756(56)

317.24 PUNISHMENT OF OFFICER.

Any officer referred to in this chapter who neglects or fails to perform the duties incumbent upon the officer under the provisions of this chapter shall be guilty of a simple misdemeanor.

Section History: Early Form

[S13, § 1565-i; C24, 27, 31, 35, § 4829; C39, § 4829.22; C46, § 317.23; C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, § 317.24]

317.25 TEASEL, MULTIFLORA ROSE, AND PURPLE LOOSESTRIFE PROHIBITED - EXCEPTIONS.

A person shall not import, sell, offer for sale, or distribute teasel (*Dipsacus*) biennial, the multiflora rose (*Rosa multiflora*), purple loosestrife (*Lythrum salicaria*), purple loosestrife (*Lythrum virgatum*), or seeds of them in any form in this state. However, this section does not prohibit the sale, offer for sale, or distribution of the multiflora rose (*Rosa multiflora*) used for understock for either cultivated roses or ornamental shrubs in gardens. Any person violating the provisions of this section is subject to a fine of not exceeding one hundred dollars.

Section History: Early Form

[C75, 77, 79, 81, § 317.25]

Section History: Recent Form

89 Acts, ch 193, §1; 90 Acts, ch 1111, § 1; 91 Acts, ch 5, §1; 91 Acts, ch 258, §46; 2001 Acts, ch 91, §1; 2002 Acts, ch 1050, §31

317.26 ALTERNATIVE REMEDIATION PRACTICES.

The director of the department of natural resources, in cooperation with the secretary of agriculture and county conservation boards or the board of supervisors, shall develop and implement projects which utilize alternative practices in the remediation of noxious weeds and other vegetation within highway rights-of-way.

Section History: Recent Form

87 Acts, ch 225, §231

CHAPTER 318 OBSTRUCTIONS IN HIGHWAY RIGHTS=OF=WAY

318.1 DEFINITIONS.

318.2 PURPOSE.

318.3 OBSTRUCTIONS IN HIGHWAY RIGHT-OF-WAY.

318.4 DUTY OF HIGHWAY AUTHORITIES.

318.5 REMOVAL AND COST.

318.6 PUBLIC NUISANCE.

318.7 INJUNCTION TO RESTRAIN OBSTRUCTIONS.

318.8 PERMIT REQUIRED.

318.9 UTILITY STRUCTURES.

318.10 FENCES.

318.11 BILLBOARDS AND SIGNS.

318.12 ENFORCEMENT.

318.1 DEFINITIONS.

As used in this chapter, unless the context otherwise requires:

1. "Department" means the state department of transportation.
2. "Highway authority" means the county board of supervisors, in the case of secondary roads, and the department, in the case of primary roads.
3. "Highway right-of-way" means the total area of land, whether reserved by public ownership or easement, that is reserved for the operation and maintenance of a legally established public roadway. This area shall be deemed to consist of two portions, a central traveled way including the shoulders and that remainder on both sides of the road, between the outside shoulder edges and the outer boundaries of the right-of-way.
4. "Obstruction" means an obstacle in the highway right-of-way or an impediment or hindrance which impedes, opposes, or interferes with free passage along the highway right-of-way, not including utility structures installed in accordance with an approved permit.
5. "Officer" means any department employee, county employee, or elected county official.
6. "Traveled portion of the right-of-way" means that area of the highway right-of-way, not

including the shoulders, on which vehicles normally travel.

7. "Utility" means all private, public, municipal, or cooperative owned systems for water, sewer, natural gas, electric, telegraph, telephone, transit, pipeline, heating plants, railroads, bridges, street lights, or traffic control signals.
8. "Utility structures" means the aboveground devices, required by a utility, including poles, lines, and wires, used for telephone, electric, natural gas, and other distribution or transmission purposes, and natural gas and electrical substations.

Section History: Recent Form

2006 Acts, ch 1097, §1

318.2 PURPOSE.

The purpose of this chapter is to enhance public safety for those traveling the public roads and allow economical maintenance of highway rights-of-way.

Section History: Recent Form

2006 Acts, ch 1097, §2

318.3 OBSTRUCTIONS IN HIGHWAY RIGHT-OF-WAY.

A person shall not place, or cause to be placed, an obstruction within any highway right-of-way. This prohibition includes, but is not limited to, the following actions:

1. The excavation, filling, or making of any physical changes to any part of the highway right-of-way, except as provided under section 318.8.
2. The cultivation or growing of crops within the highway right-of-way.
3. The destruction of plants placed within the highway right-of-way.
4. The placing of fences or ditches within the highway right-of-way.
5. The alteration of ditches, water breaks, or drainage tiles within the highway right-of-way.
6. The placement of trash, litter, debris, waste material, manure, rocks, crops or crop residue, brush, vehicles, machinery, or other items within the highway right-of-way.
7. The placement of billboards, signs, or advertising devices within the highway right-of-way.
8. The placement of any red reflector, or any object or other device which shall cause the effect of a red reflector on the highway right-of-way which is visible to passing motorists.

Section History: Recent Form

2006 Acts, ch 1097, §3

Referred to in § 318.6, 318.8

See also §318.5, 318.10, and 318.11

318.4 DUTY OF HIGHWAY AUTHORITIES.

The highway authority shall cause all obstructions in a highway right-of-way under its jurisdiction to be removed.

Section History: Recent Form

2006 Acts, ch 1097, §4

318.5 REMOVAL AND COST.

1. An obstruction in a highway right-of-way which constitutes an immediate and dangerous hazard shall, without notice or liability in damages, be removed by the highway authority.
2. An obstruction not constituting an immediate and dangerous hazard shall be removed by the highway authority without liability after forty-eight-hour notice served in the same manner in which an original notice is served, or in writing by certified mail, or in any other manner reasonably calculated to apprise the person responsible for the obstruction that the obstruction will be removed at the person's expense. The highway authority shall assess the removal cost.
3. Upon removal of the obstruction, the highway authority may immediately send a statement of the cost to the person responsible for the obstruction. If within ten days after sending the statement the cost is not paid, the highway authority may institute legal proceedings to collect the cost of removal. The removal costs shall be assessed against the following persons, as applicable:
 - a. The vehicle owner in the case of an abandoned vehicle.
 - b. The abutting property owner in the case of a fence, other than a right-of-way line fence, or other temporary obstruction placed within the highway right-of-way by the owner or tenant of the abutting property.
 - c. The owner or person responsible for placement of any other obstruction.
4. All removals shall be without liability on the part of any officer ordering or effecting such removal.

Section History: Recent Form

2006 Acts, ch 1097, §5

Referred to in § 68A.406, 318.9, 318.10

Manner of service, R.C.P. 1.302--1.315

318.6 PUBLIC NUISANCE.

1. Any person who places, or causes to be placed, any obstruction in a highway right-of-way as prohibited under section 318.3 is deemed to have created a public nuisance punishable as provided in chapter 657.
2. If a person is found guilty of placing an obstruction within a highway right-of-way, the court may, in addition to any fine imposed, or judgment for damages or costs for which a separate execution may issue, order that the obstruction be abated or removed at the expense of the defendant. The costs for abatement or removal of the obstruction may be entered as a personal judgment against the defendant or assessed against the property where the obstruction occurred, or both.

Section History: Recent Form

2006 Acts, ch 1097, §6

318.7 INJUNCTION TO RESTRAIN OBSTRUCTIONS.

A highway authority may maintain a suit in equity aided by injunction to restrain an obstruction in a highway right-of-way. In such actions, the highway authority may cause the legal boundary lines of the highway to be adjudicated provided all interested parties are impleaded.

Section History: Recent Form

2006 Acts, ch 1097, §7

318.8 PERMIT REQUIRED.

A person shall not excavate, fill, or make a physical change within a highway right-of-way without obtaining a permit from the applicable highway authority. At the request of a permittee, a modification may be granted in the discretion of the highway authority. Work performed under the permit shall be performed in conformity with the specifications prescribed by the highway authority. If the work does not conform to permit specifications, the person shall be notified to make the conforming changes. If after twenty days the changes have not been made, the highway authority may make the necessary changes and immediately send a statement of the cost to the responsible person. If within thirty days after sending the statement the cost is not paid, the highway authority may institute legal proceedings to collect the cost of correction. A violation of the permit specifications shall be considered a violation of section 318.3. A public utility subject to section 306A.3 is exempt from this section.

Section History: Recent Form

2006 Acts, ch 1097, §8

Referred to in § 318.3

318.9 UTILITY STRUCTURES.

1. a. A utility structure in a highway right-of-way used for telephone, electric, natural gas, or other distribution or transmission purposes shall be removed by the owner or operator of the transmission lines upon written notice from the highway authority of not less than ninety days, to the owner and operator. The notice shall, with reasonable certainty, specify the utility structure to be removed and shall be served in the same manner that original notices are required to be served. If the owner or operator of the transmission line is unable to remove the utility structure within the required time due to circumstances beyond the control of the owner or operator, the owner or operator shall file a request with the highway authority for an extension of time to complete the work.
- b. If the owner or operator of a transmission line needs authorization from the utilities board or other governmental authority to relocate a utility structure or to obtain a new private easement right for relocation of the utility structure, the owner or operator shall request an extension of time within which to remove the utility structure. The highway authority shall grant an extension of time for at least ninety days following the date authorization is granted or the easement right is obtained.
2. Upon written application, the highway authority shall locate the construction of new telephone, electric, or transmission lines or parts of lines, including natural gas pipeline, for the roads within the highway authority's jurisdiction, subject to the jurisdiction of the utilities board under chapters 476, 478, and 479, as follows:
 - a. The county engineer, or the board of supervisors if a county engineer is not available, shall locate the lines for secondary roads.
 - b. The department shall locate the lines for primary roads.

3. The department and the county engineer, or the board of supervisors if a county engineer is not available, may designate the location of a utility structure within a highway right-of-way. A utility structure that is not properly located within the highway right-of-way shall be removed within a time prescribed to a designated location. If not so removed, the highway authority may remove the utility structure and recover costs as provided in section 318.5.

Section History: Recent Form

2006 Acts, ch 1097, §9

Referred to in § 306.46

Manner of service. R.C.P. 1.302--1.315

318.10 FENCES.

1. A fence which constitutes an immediate and dangerous hazard shall, without notice or liability in damages, be removed by the highway authority. In all other cases where a fence is an obstruction in a highway right-of-way, notice in writing of not less than thirty days shall be given to the owner, occupant, or agent of the land enclosed by the fence.
2. The notice shall, with reasonable certainty, specify the line to which the fences shall be removed and shall be served in the same manner that original notices are required to be served, or in writing by certified mail, or in any other manner reasonably calculated to apprise the person responsible for the fence.
3. The department and the county engineer, or the board of supervisors if a county engineer is not available, may designate the location of a fence within a highway right-of-way. A fence that is not properly located within the highway right-of-way shall be removed within a time prescribed to a designated location. If not so removed, the highway authority may remove the fences and recover costs as provided in section 318.5.

Section History: Recent Form

2006 Acts, ch 1097, §10

Manner of service. R.C.P. 1.302--1.315

318.11 BILLBOARDS AND SIGNS.

1. No billboard or advertising sign or device, except a sign or device authorized by law or approved by the highway authority, shall be placed or erected upon a highway right-of-way.
2. A billboard or advertising sign, whether on public or private property, that obstructs the view of any portion of a public highway or of a railway track making the use of the traveled portion of the right-of-way dangerous is a public nuisance and shall be abated. The person responsible for the erection and maintenance of the billboard or sign may be punished as provided in chapter 657.

Section History: Recent Form

2006 Acts, ch 1097, §11

Referred to in § 331.756(57)

318.12 ENFORCEMENT.

A highway authority shall enforce the provisions of this chapter by appropriate civil or criminal proceeding or by both such proceedings.

Section History: Recent Form

2006 Acts, ch 1097, §12

Nuisances in general, chapter 657

468.126 Repairs and improvements.

1. When any levee or drainage district has been established and the improvement constructed, the improvement shall be at all times under the supervision of the board of supervisors except as otherwise provided for control and management by a board of trustees and the board shall keep the improvement in repair as provided in this section.
 - a. The board at any time on its own motion, without notice, may order done whatever is necessary to restore or maintain a drainage or levee improvement in its original efficiency or capacity, and for that purpose may remove silt and debris, repair any damaged structures, remove weeds and other vegetable growth, and whatever else may be needed to restore or maintain such efficiency or capacity or to prolong its useful life.
 - b. The board may at any time obtain an engineer's report regarding the most feasible means of repairing a drainage or levee improvement and the probable cost of making the repair. If the engineer advises, or the board otherwise concludes that permanent restoration of a damaged structure is not feasible at the time, the board may order temporary construction it deems necessary to the continued functioning of the improvement. If in maintaining and repairing tile lines the board finds from an engineer's report it is more economical to construct a new line than to repair the existing line, the new line may be considered to be a repair.
 - c. If the estimated cost of the repair does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing and provide notice of the hearing to landowners in the district by publication in the same manner as provided in section 468.15. However, if the estimated cost of the repair exceeds the adjusted competitive bid threshold, the board shall provide notice to the landowners pursuant to sections 468.14 through 468.18. The board shall not divide a proposed repair into separate programs in order to avoid the notice and hearing requirements of this paragraph.
 - d. If a hearing is required under paragraph "c", the board shall order an engineer's report or a report from the soil and water conservation district conservationist regarding the matter to be presented at the hearing. The board may waive the report requirement if a prior report on the repair exists and that report is less than ten years old. At the hearing, the board shall hear objections to the feasibility of making the proposed repair.
 - e. Following a hearing, if required in paragraph "c", the board shall determine whether the repair is necessary or desirable, and feasible.
 - f. Any interested party has the right of appeal from such orders in the manner provided in this subchapter, parts 1 through 5.
 - g. The right of remonstrance does not apply to a repair as provided in this section.
2. In the case of a repair, or the eradication of brush or weeds along the open ditches, not in

excess of the adjusted competitive bid threshold, where the board finds that a saving to the district will result, the board may cause the repairs or eradication to be done by secondary road fund equipment, or weed fund equipment, and labor of the county and then reimburse the secondary road fund or the weed fund from the fund of the drainage district thus benefited.

3. When the board deems it necessary it may repair or reconstruct the outlet of any private tile line which empties into a drainage ditch of any district and assess the costs in each case against the land served by the private tile line.
4. a. For the purpose of this subsection, an "improvement" in a drainage or levee district in which any ditch, tile drain, or other facility has previously been constructed is a project intended to expand, enlarge, or otherwise increase the capacity of any existing ditch, drain, or other facility above that for which it was designed.
- b. When the board determines that an improvement is necessary or desirable, and feasible, the board shall appoint an engineer to make surveys as seem appropriate to determine the nature and extent of the improvement, and to file a report showing what improvement is recommended and its estimated cost, which report may be amended before final action.
- c. If the estimated cost of the improvement does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing on whether to construct the proposed improvement and whether there shall be a reclassification of benefits for the cost of the proposed improvement.
 - (1) (a) The board shall provide notice to landowners in the district by publication in the same manner as provided in section 468.15. However, if the estimated cost of the improvement exceeds the adjusted competitive bid threshold, the board shall provide notice to the landowners pursuant to sections 468.14 through 468.18.
 - (b) Notwithstanding subparagraph division (a), and in lieu of publishing the notice, the board may mail a copy of the notice to each address where a landowner within the district resides by first class mail if the cost of mailing is less than publication of the notice. The mailing shall be made during the time the notice would otherwise be required to be published.
- (2) The board shall not divide proposed improvements into separate programs in order to avoid compliance with this paragraph "c".
- d. At the hearing, if required in paragraph "c", the board shall hear objections to the feasibility of the proposed improvements and arguments for or against a reclassification presented by or for any taxpayer of the district. Following the hearing, the board shall order that the improvement it deems necessary or desirable and feasible be made and shall also determine whether there should be a reclassification of benefits for the cost of the improvement. If it is determined that a reclassification of benefits should be made, the board shall proceed as provided in section 468.38.
- e. If the estimated cost of the improvement exceeds the adjusted competitive bid threshold, or the original cost of the district plus the cost of subsequent improvements in the district, whichever amount is greater, a majority of the landowners, owning in the aggregate more than seventy percent of the total land in the district, may file a written remonstrance against the proposed improvement, at or before the date set for hearing on the proposed improvement as provided in paragraph "c", with the county auditor, or

auditors in case the district extends into more than one county. If a remonstrance is filed, the board shall discontinue and dismiss all further proceedings on the proposed improvements and charge the costs incurred to date for the proposed improvements to the district. Any interested party may appeal from such orders in the manner provided in this subchapter, parts 1 through 5. However, this section does not affect the procedures of section 468.132 covering the common outlet.

5. Where under the laws in force prior to 1904 drainage ditches and levees were established and constructed without fixing at the time of establishment a definite boundary line for the body of land to be assessed for the cost thereof, the body of land which was last assessed to pay for the repair thereof shall also be considered as the established district for the purpose of this section.
6. The governing body of the district may, by contract or conveyance, acquire, within or without the district, the necessary lands or easements for making repairs or improvements under this section, including easements for borrow and easements for meander, and in addition thereto, the same may be obtained in the manner provided in the original establishment of the district, or by exercise of the power of eminent domain as provided for in chapter 6B. If additional right-of-way is required for any repair or improvement under this section, the same may be acquired in the same manner as provided for the acquisition of right-of-way in the original establishment of a district, except that where notice and hearing are not otherwise required under this section notice as provided in this subchapter, parts 1 through 5, to owners, lienholder of record, and occupants of the land from which right-of-way is to be acquired shall suffice.
7. In existing districts where the stream has by erosion appropriated lands beyond its original right-of-way and it is more economical and feasible to acquire an easement for such erosion and meander than to undertake containment of the stream in its existing right-of-way, the board may, in the discharge of the duties enjoined upon it by this section, effect such acquisition as to the whole or part of the course. Right-of-way so taken shall be classed an improvement for the purpose of procedure under this section.
8. If the drainage records on file in the auditor's office for a particular district do not define specifically the land taken for right-of-way for drainage purposes, the board may at any time upon its own motion employ a land surveyor to make a survey and report of the district and to actually define the right-of-way taken for drainage purposes. After the land surveyor has filed the survey and report with the board, the board shall fix a date for hearing on the report and shall serve notice of the hearing upon all landowners and lienholder of record and occupants of the lands traversed by the right-of-way in the manner and for the time required for service of original notices in the district court. At the hearing the board shall specifically define the land taken for the right-of-way. Once established, the right-of-way constitutes a permanent easement in favor of the drainage district for drainage purposes including the right of ingress and egress across adjoining land and the right of access for maintenance, repair, improvement and inspection. A person aggrieved by the action or failure to act of the board under this subsection may appeal only in compliance with sections 468.83 through 468.98.

Section History: Early Form

[S13, §1989-a21; C24, 27, 31, 35, 39, §7556, 7558 – 7561; C46, §455.135, 455.137 – 455.140; C50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.135; 81 Acts, ch 150, §1]

Section History: Recent Form

85 Acts, ch 163, §8, 9; 87 Acts, ch 23, §15; 87 Acts, ch 143, §1; 89 Acts, ch 126, §2 CS89, §468.126 94 Acts, ch 1051, §7, 8; 2004 Acts, ch 1051, §1 – 3; 2008 Acts, ch 1047, §1 – 4; 2014 Acts, ch 1075, §14 – 16; 2015 Acts, ch 51, §9 – 12
Referred to in §461A.76, §468.41, §468.57, §468.119, §468.127, §468.131, §468.132, §468.201, §468.260, §468.359, §468.396

468.127 Payment.

The costs of the repair or improvements provided for in section 468.126 shall be paid for out of the funds of the levee or drainage district. If the funds on hand are not sufficient to pay such expenses, the board within two years shall levy an assessment sufficient to pay the outstanding indebtedness and leave the balance which the board determines is desirable as a sinking fund to pay maintenance and repair expenses. Any assessment made under this section on any tract, parcel or lot within the district which is computed at less than five dollars shall be fixed at the sum of five dollars.

If the board deems that the costs of the repairs or improvements will create assessments against the lands in the district greater than should be borne in one year, it may levy the same at one time and provide for the payment of said costs and assessments in the manner provided in sections 468.57 through 468.61; provided that assessments may be collected in not more than twenty installments as the board may determine.

Section History: Early Form

[S13, §1989-a21; C24, 27, 31, 35, 39, §7557; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.136]

Section History: Recent Form

89 Acts, ch 126, §2
CS89, §468.127
94 Acts, ch 1051, §9; 98 Acts, ch 1048, §1

468.136 Levy under original classification.

If the amount finally charged against a district does not exceed twenty-five percent of the original cost of the improvement in the district, the board shall proceed to levy the amount against all lands, highways, and railway rights-of-way and property within the district, in accordance with the original classification and apportionment. Any assessment made under this section on any tract, parcel, or lot within the district which is computed at less than five dollars shall be fixed at the sum of five dollars.

Section History: Early Form

[C24, 27, 31, 35, 39, §7567; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.146]

Section History: Recent Form

89 Acts, ch 126, §2
CS89, §468.136
94 Acts, ch 1051, §10

468.137 Levy under reclassification.

If the amount finally charged against a district exceeds twenty-five percent of the original cost of the improvement, the board may order a reclassification as provided for the original classification of a district and upon the final adoption of the new classification and apportionment shall proceed to levy that amount upon all lands, highways, and railway rights-of-way and property within the district, in accordance with the new classification and apportionment. An assessment made under this section on a tract, parcel, or lot within the district which is computed at less than five dollars shall be fixed at the sum of five dollars.

Section History: Early Form

[C24, 27, 31, 35, 39, §7568; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.147]

Section History: Recent Form

85 Acts, ch 163, §10; 89 Acts, ch 126, §2
CS89, §468.137
94 Acts, ch 1051, §11

468.138 Removal of obstructions.

The board shall cause to be removed from the ditches, drains, and laterals of any district any obstructions which interfere with the flow of the water, including trees, hedges, or shrubbery and the roots thereof, and may cause any tile drain so obstructed to be relaid in concrete or any other adequate protection, such work to be paid for from the drainage funds of the district.

Section History: Early Form

[C24, 27, 31, 35, 39, §7569; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.148]

Section History: Recent Form

89 Acts, ch 126, §2
CS89, §468.138

468.139 Trees and hedges.

When it becomes necessary to destroy any trees or hedges outside the right-of-way of any ditch, lateral, or drain in order to prevent obstruction by the roots thereof, if the board and the owners of such trees or hedges cannot agree upon the damage for the destruction thereof, the board may proceed to acquire the right to destroy and remove such trees or hedges by the same proceedings provided for acquiring right-of-way for said drainage improvement in the first instance.

Section History: Early Form

[C24, 27, 31, 35, 39, §7570; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.149]

Section History: Recent Form

89 Acts, ch 126, §2
CS89, §468.139

468.140 Outlet for lateral drains — specifications.

The owner of any premises assessed for the payment of the costs of location and construction of any ditch, drain, or watercourse as in this subchapter, parts 1 through 5, provided, shall have the right to use the same as an outlet for lateral drains from the premises. The board of supervisors shall make specifications covering the manner in which such lateral drains shall be connected with the main ditches or other laterals and be maintained, and the owner shall follow such specifications in making and maintaining any such connection.

Section History: Early Form

[S13, §1989-a22; C24, 27, 31, 35, 39, §7571; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.150]

Section History: Recent Form

89 Acts, ch 126, §2
CS89, §468.140

468.141 Subdistricts in intercounty districts.

The board of supervisors of any county shall have jurisdiction to establish subdrainage districts of lands included within a district extending into two or more counties when the lands to compose such subdistricts lie wholly within such county, and to make improvements therein, repair and maintain the same, fix and levy assessments for the payment thereof, and the provisions of this section shall apply to all such drainage subdistricts, the lands of which lie wholly within one county. The proceedings for all such purposes shall be the same as for the establishment, construction, and maintenance of an original levee or drainage district the lands of which lie wholly within one county, so far as applicable, except that one or more persons may petition for a subdistrict as provided in section 468.63.

Section History: Early Form

[S13, §1989-a37; C24, 27, 31, 35, 39, §7572; C46, 50, 54, 58, 62, 66, 71, 73, 75, 77, 79, 81, §455.151]

Section History: Recent Form

89 Acts, ch 126, §2
CS89, §468.141

CHAPTER 33
USE OF SECONDARY ROAD RIGHT-OF-WAY

33.01 Board Findings
33.02 Definitions
33.03 Offenses and Penalties

33.04 Authorization Process
33.05 Abatement Cost
33.06 Enforcement

33.01 BOARD FINDINGS. The Story County Board of Supervisors finds as follows:

(Code of Iowa, Sec. 331.301[1])

1. The unauthorized use of secondary road right-of-way is a problem in the County.
2. This problem includes, but is not limited to, the cultivation and growing of crops on the County right-of-way; the improper placing of fences or ditches on the County right-of-way; the alteration of ditches, water breaks and drainage tiles on the County right-of-way; the placement of trash, junk, rocks, corncobs, brush, abandoned vehicles or machinery and other items on the County right-of-way; and the placement of billboards, signs, hazardous mailbox supports, and advertising devices on the County right-of-way.
3. The unauthorized use of secondary road right-of-way can, among other things, undermine attempts to control drainage and floodwater, diminish snow storage capacity and hinder snow removal, damage or shorten the life expectancy of the roadway, or create hazardous obstructions in the roadway.
4. The unauthorized use of secondary road right-of-way therefore endangers the health, safety, and welfare of the citizens of Story County.

The Board further finds that it is necessary to prevent the unauthorized use of County secondary roadway right-of-way.

33.02 DEFINITIONS. For use in this chapter, the following terms are defined:

1. "Any person responsible" includes any person who personally does any act that constitutes the unauthorized use of the County secondary roadway right-of-way. "Any person responsible" includes any person who authorizes or contracts with another to do any act that leads to the unauthorized use of the County secondary roadway right-of-way. It is not a defense to this chapter that a person contracted with another person or entity and that the contractor did the act that constituted the unauthorized use of the County secondary roadway right-of-way. A person contracting with another shall have an ongoing duty not to permit the contractor to do work that involves the unauthorized use of the County secondary roadway right-of-way and to oversee the work done in order to ensure that it does not involve the unauthorized use of the County secondary roadway right-of-way. Evidence that work done on or to benefit a piece of property involved the unauthorized use of the County secondary roadway right-of-way shall be prima facie evidence that the owner and/or lessee of that property did authorize or permit the unauthorized use of the County secondary roadway right-of-way. A landlord and tenant shall both be in violation of this chapter if the unauthorized use of the County secondary roadway right-of-way was done with the knowledge, consent, approval or encouragement of the landlord. It shall be an "affirmative defense" to action under this chapter if the unauthorized use of the County secondary roadway right-of-way was done

solely by the authority of the tenant without any knowledge, approval, consent or encouragement by the landlord. A tenant has an independent duty not to violate this chapter. It is not a defense under this chapter for the tenant that the unauthorized use of the County secondary roadway right-of-way was done with the knowledge, approval, consent or encouragement of the landlord unless the tenant played no part, directly or indirectly, in the action constituting the unauthorized use of the County secondary roadway right-of-way.

2. "County secondary roadway right-of-way" means the entire width, distance and portion of any property that the County has the right to use, whether by easement or fee, for roadway purposes. "County secondary roadway right-of-way" includes the traveled portion of the roadway, the shoulders and the ditches and embankments, including both fore slopes and back slopes, attached to any County secondary roads that are used for roadway purposes. Width of these properties varies and they have been removed from taxation due to their public usage.
3. "Unauthorized use of the County secondary roadway right-of-way" means any use of the County secondary roadway right-of-way that is not pre-authorized in writing by the Story County Engineer and that occurs after the effective date of the ordinance codified in this chapter. It includes, but is not limited to excavating, filling or making any physical changes to any part of the County secondary roadway right-of-way; the cultivation and growing of crops on the County right-of-way; the destruction of plants placed in the County right-of-way; the placing of fences or ditches on the County right-of-way; the alteration of ditches, water breaks and drainage tiles on the County right-of-way; the placement of trash, junk, rocks, corn cobs, brush, vehicles, machinery or other items on or in the County right-of-way; and the placement of billboards, signs, hazardous mailbox supports, and advertising devices on the County right-of-way. "Unauthorized use of the County secondary roadway right-of-way" does not include the mowing or harvesting of grasses in the County right-of-way so long as the mowing or harvesting of grasses does not destroy or adversely affect the grasses or other plants in the County right-of-way or is not in violation of an integrated roadside vegetation management plan promulgated pursuant to Section 314.22(2) of the Code of Iowa. "Unauthorized use of the County secondary roadway right-of-way" does not include driving on the traveled portion of the roadway or parking a vehicle on the shoulder of the roadway for less than two (2) hours or parking a disabled vehicle on the shoulder of the roadway for less than twenty-four (24) hours. "Unauthorized use of the County secondary roadway right-of-way" does not include the actions of the Story County Engineer or any agency of Story County or the State of Iowa.

33.03 OFFENSES AND PENALTIES.

1. The unauthorized use of the County secondary roadway right-of-way in Story County is hereby declared a public nuisance and is prohibited.
2. The unauthorized use of the County secondary roadway right-of-way shall be a County Infraction as defined in Section 331.307 of the Code of Iowa.
3. The penalty for the unauthorized use of the County secondary roadway right-of-way shall be a civil penalty as provided in Section 3.02 of this Code of Ordinances.
4. The Story County Attorney may ask that the Court waive any portion of the civil penalty that he/she deems appropriate.
5. Each 24-hour period (following the removal deadline specified in Section 33.04(6)(B) of this

chapter) in which a person is in violation of this chapter is a separate and distinct offense.

6. Action under this chapter does not prevent or preclude any other civil or criminal action or remedy that may be applicable.
7. In addition to the civil penalty for a violation of this chapter, any other remedies authorized under Section 331.307(9) may be utilized including but not limited to abatement/correction and assessment of costs.

33.04 AUTHORIZATION PROCESS.

1. No action shall be a violation of this chapter if done with the written pre- authorization of the Story County Engineer.
2. Written pre-authorization shall be in the form of a permit, which shall be issued at no charge.
3. The Story County Engineer may set forth conditions, limitations and/or specifications in the permit and may require the posting of a bond.
4. A permittee under this section may, when appropriate, seek a modification of the permit. The granting of the modification shall be at the discretion of the Story County Engineer.
5. A violation of the conditions, limitations and/or specifications in the permit shall be considered the unauthorized use of the County secondary roadway right-of- way and a violation of this chapter.
6. Upon the violation of the conditions, limitations and/or specifications of a permit, the Story County Engineer may, at his or her sole discretion:
 - A. Modify the permit.
 - B. Give the permittee notice of the violation and an opportunity, as set out in the notice, to cure the violation by a specified removal deadline.
 - C. Take steps to cure the violation and to assess the costs of the cure to the permittee.
 - D. Refer the matter to the Story County Attorney for legal action.
 - E. Take other appropriate action.
7. The Board of Supervisors may, at its sole discretion, by majority vote, waive any violation of this chapter that has not been referred to the Story County Attorney for legal action.

33.05 ABATEMENT COST.

Any person responsible for the unauthorized use of the County secondary roadway right-of-way shall be strictly liable and responsible for the abatement and the costs of the abatement of the unauthorized use of the County secondary roadway right-of-way and for any damages caused by the unauthorized use of the County secondary roadway right-of-way. The County's costs for abatement or correction of the violation may be entered as a personal judgment against the defendant or assessed against the property

where the violation occurred, or both.
(Code of Iowa, Sec. 331.307[9][e])

33.06 ENFORCEMENT.

It is the duty of the Story County Engineer to identify violations of this chapter. Upon the request of the Story County Engineer, the Story County Attorney shall take those steps that he/she deems appropriate to enforce this chapter.

STORY COUNTY RIGHT-OF-WAY BRUSH MANAGEMENT POLICY

It is the policy of Story County that the vegetation of its roadsides to be preserved, planted, and maintained safe, visually attractive, and ecologically integrated and useful in many purposes. (See Iowa Code section 314.22 for the full statement of the purpose of this policy)

The purpose of this policy is to control woody vegetation within Story County's road right-of-way. To meet this purpose, the County has authority, in its discretion, to:

1. Cut and/or spray any woody vegetation in the right-of-way which creates a situation that threatens the safety of the traveling public such as:
 - a. Snow traps and/or shading of the road that might occur
 - b. Site distance problems in relation to road signs or intersections
 - c. Conditions that impede the maintenance or improvements to the right-of-way
 - d. Width or height restrictions of vehicles or equipment using the roadway
2. Leave woody materials which have been cut or sprayed to decompose in the right-of-way.
3. Burn the roadside vegetation to destroy small brush and stimulate desirable vegetation.

Utilizing these methods, the following guidelines will be implemented:

Along all county roads, dirt, gravel and paved, our normal procedure will be to clear the entire right of way width, utilizing level cuts as low as possible, with the following exceptions:

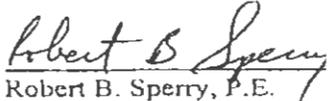
1. Tree and shrubs in house yards or residential acreages, whose bases are inside the right of way line by no more than five feet (5'), may remain, if desired, but limbs must be pruned back to the to the nearest lateral branch, so that they extend no further than eight feet (8') into the right of way. A written notice of our intended work will be sent or delivered to these properties a minimum of seven (7) days prior to the commencement of our work. This notice will provide the landowner an opportunity to arrange for his/her own trimming and/or to request any larger material for firewood. (Landowner will be responsible for cutting into lengths and removing from ditch.)
2. Side trimming of limbs of trees will be done by pruning them back to no more than eight (8) feet from the right of way line when the tree base is actually outside the right of way.

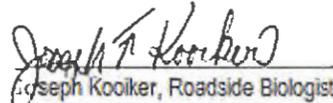
The mechanical brush cutter will be used in rural non-residential areas with small scattered brush and trees where debris will be allowed to lay on slopes. Mechanically cut stumps, larger than eight (8) inches in diameter, as well as those larger trees that are cut totally with chainsaws will be cut flush to the ground, whenever possible. Large side branches will be trimmed to the main trunk or first lateral branch.

Brush control through cutting, spraying, and burning is an integrated approach to roadside vegetation management. Story County is committed to the wise use of herbicides on its roadsides

and being consistent with employee and environmental safety and with regulations controlling the use of roadside application of pesticides in the state.

Recommended Approval by


Robert B. Sperry, P.E.
County Engineer

 8-12-02
Joseph Kooiker, Roadside Biologist Date
Integrated Roadside Vegetation Management

Approved by:

 8/13/02
Jane E. Halliburton, Chair Date
Story County Board of Supervisors

STORY COUNTY ORDINANCE NO. 107

BE IT ORDAINED BY THE BOARD OF SUPERVISORS OF STORY COUNTY, IOWA, THAT THE FOLLOWING ORDINANCE PROHIBITING THE UNAUTHORIZED USE OF SECONDARY ROAD RIGHT-OF-WAY FOR STORY COUNTY BE ADOPTED.

Section I. Preamble and Board Findings.

1. Section 331.301(1) of the Code of Iowa provides that a County may, except as expressly limited by the Constitution, and if not inconsistent with the laws of the General Assembly, exercise any power and perform any function it deems appropriate to protect and preserve the rights, privileges, and property of the County or its residents and to preserve, and improve the peace, safety, health, welfare, comfort, and convenience of its residents.
2. The Story County Board of Supervisors FINDS as follows:
 - a. That the Unauthorized Use of Secondary Road Right-of-Way is a problem in Story County.
 - b. That this problem includes, but is not limited to, the cultivation and growing of crops on the County Right-of-Way; the improper placing of fences or ditches on the County Right-of-Way; the alteration of ditches, water breaks and drainage tiles on the County Right-of-Way; the placement of trash, junk, rocks, com cobs, brush, abandoned vehicles or machinery and other items on the County Right-of-Way; and the placement of billboards, signs, hazardous mailbox supports, and advertising devices on the County Right-of-Way.
 - c. That the Unauthorized Use of Secondary Road Right-of-Way can, among other things, undermine attempts to control drainage and flood water, diminish snow

storage capacity and hinder snow removal, damage or shorten the life expectancy of the road way, or create hazardous obstructions in the road way.

- d. That the Unauthorized Use of Secondary Road Right-of-Way therefore endangers the health, safety and welfare of the citizens of Story County.
3. The Story County Board of Supervisors further FINDS that is necessary to prevent the Unauthorized Use of County Secondary Roadway Right-of-Way.

Section II. Title

1. This Ordinance shall be known and may be cited as the Story County Secondary Road Right-of-Way Ordinance.

Section III. Definitions

1. "County Secondary Roadway Right-of-Way" means the entire width, distance and portion of any property that the County has the right to use, whether by easement or fee, for roadway purposes. "County Secondary Roadway Right-of-Way" includes the traveled portion of the roadway, the shoulders and the ditches and embankments, including both fore slopes and back slopes, attached to any County Secondary Road that are used for roadway purposes. Width of these properties varies and has been removed from taxation due to their public usage.
2. "Unauthorized Use of the County Secondary Roadway Right-of-Way" means any use of the County Secondary Roadway Right-of-Way that is not pre-authorized in writing by the Story County Engineer and that occurs after the effective date of this ordinance. It includes, but is not limited to excavating, filling or making any physical changes to any part of the County Secondary Roadway Right-of-Way; the cultivation and growing of crops on the County Right-of-Way; the destruction of plants placed in the County Right-of-Way; the placing of fences or ditches on the County Right-of-Way; the alteration of ditches, water breaks and drainage tiles on -the County Right-of-Way; the placement of trash, junk, rocks, corncobs, brush, vehicles, machinery or other items on or in the County Right-of-Way; and the placement of billboards, signs, hazardous mailbox supports, and advertising devices on the County Right-of-Way.
3. "Unauthorized Use of the County Secondary Roadway Right-of-Way" does not include the mowing or harvesting of grasses in the County Right-of-Way so long as the mowing or harvesting of grasses does not destroy or adversely affect the grasses or other plants in the County Right-of- Way or is not in violation of an integrated roadside vegetation management plan promulgated pursuant to Section 314.22(2) of the Code of Iowa.
4. "Unauthorized Use of the County Secondary Roadway Right-of-Way" does not include driving on the traveled portion of the Roadway or parking a vehicle on the shoulder of the Roadway for less than two (2) hours or parking a disabled vehicle on the shoulder of the Roadway for less than twenty-four (24) hours.
5. "Unauthorized Use of the County Secondary Roadway Right-of-Way" does not include the actions of the Story County Engineer or any agency of Story County or the State of Iowa.

6. "Any person(s) responsible" shall include any person who personally does any act, which constitutes the Unauthorized Use of the County Secondary Roadway Right-of-Way.
7. "Any person(s) responsible shall include any person who authorizes or contracts with another to do any act, which leads to the Unauthorized Use of the County Secondary Roadway Right-of- Way. It is not a defense to this Ordinance that a person contracted with another person or entity and that the contractor did the act, which constituted the Unauthorized Use of the County Secondary Roadway Right-of-Way. A person contracting with another shall have an ongoing duty not to permit the contractor to do work which involves the Unauthorized Use of the County Secondary Roadway Right-of-Way and to over-see the work done in order to ensure that it does not involve the Unauthorized Use of the County Secondary Roadway Right-of-Way.
8. Evidence that work done on or to benefit a piece of property involved the Unauthorized Use of the County Secondary Roadway Right-of-Way shall be prima facie evidence that the owner and/or lessee of that property did authorize or permit the Unauthorized Use of the County Secondary Roadway Right-of-Way.
9. A landlord and tenant shall both be in violation of this Ordinance if the Unauthorized Use of the County Secondary Roadway Right-of-Way was done with the knowledge, consent, approval or encouragement of the landlord. It shall be an "Affirmative Defense "to action under this Ordinance if the Unauthorized Use of the County Secondary Roadway Right-of-Way was done solely by the authority of the tenant without any knowledge, approval, consent or encouragement by the landlord. A tenant has an independent duty not to violate this Ordinance. It is not a Defense under this Ordinance for the tenant that the Unauthorized Use of the County Secondary Roadway Right- of-Way was done with the knowledge, approval, consent or encouragement of the landlord unless the tenant played no part, directly or indirectly, in the action constituting the Unauthorized Use of the County Secondary Roadway Right-of-Way.

Section IV. Offenses and Penalties

1. The Unauthorized Use of the County Secondary Roadway Right-of-Way in Story County is hereby declared a public nuisance and is prohibited.
2. The Unauthorized Use of the County Secondary Roadway Right-of-Way shall be a County Infraction as defined in Section 331.302(15) of the Code of Iowa.
3. Pursuant to Section 331.302(15) of the Code of Iowa, the penalty for the Unauthorized Use of the County Secondary Roadway Right-of-Way in Story County shall be a civil penalty of two hundred fifty dollars (\$250.00) for a first offense and five hundred dollars (\$500.00) for a repeat offense. A violation of this ordinance is not punishable by imprisonment.
4. The State or County Attorney may ask that the County waive any portion of the civil penalty that he/she deems appropriate.
5. Each twenty-four (24) hour period following the removal deadline specified in Section V.6.b that a person is in violation of this Ordinance is a separate and distinct offense.
6. Action under this Ordinance does not prevent or preclude any other civil or criminal action or remedy that may be applicable.

7. In addition to the civil penalty for a violation of this Ordinance, any other remedies authorized under Section 331.307(9) may be utilized including but not limited to abatement/correction and assessment of costs.

Section V. Authorization Process

1. No action shall be a violation of this Ordinance if done with the written pre-authorization of the Story County Engineer.
2. Written pre-authorization shall be in the form of a permit, which shall be issued at no charge.
3. The Story County Engineer may set forth conditions, limitations and/or specifications in the permit and may require the posting of a bond.
4. A permittee under this Section may, when appropriate, seek a modification of the permit. The granting of the modification shall be at the discretion of the Story County Engineer.
5. A violation of the conditions, limitations and/or specifications in the permit shall be considered the Unauthorized Use of the County Secondary Roadway Right-of-Way and a violation of this Ordinance.
6. Upon the violation of the conditions, limitations and/or specifications of a permit, the Story County Engineer may, at his or her sole discretion:
 - a. Modify the permit.
 - b. Give the permitted notice of the violation and an opportunity, as set out in the notice, to cure the violation by a specified removal deadline.
 - c. Take steps to cure the violation and to assess the costs of the cure to the permitted.
 - d. Refer the matter to the Story County Attorney for legal action.
 - e. Take other appropriate action.
7. The Story County Board of Supervisors may, at its sole discretion, by majority vote, waive any violation of this Ordinance that has not been referred to the Story County Attorney for legal action.

Section VI Abatement Cost

1. Any person(s) responsible for the Unauthorized Use of the County Secondary Roadway Right-of-Way shall be strictly liable and responsible for the abatement and the costs of the abatement of the Unauthorized Use of the County Secondary Roadway Right-of-Way and for any damage(s) caused by the Unauthorized Use of the County Secondary Roadway Right-of- Way. The county's costs for abatement or correction of the violation may be entered as a personal judgment against the defendant or assessed against the property where the violation occurred, or both. [See Iowa code §331.307(9)(e)].

Section VII Enforcement

1. It shall be the duty of the Story County Engineer to identify violations of this Ordinance.
2. Upon the request of the Story County Engineer, the Story County Attorney shall take those steps that he/she deems appropriate to enforce this Ordinance.

Section VIII Miscellaneous Provisions

1. All Ordinances or parts of Ordinances in conflict with the provisions of this Ordinance are hereby repealed.
2. If any section, provision or part of this Ordinance is legislatively or judicially invalidated, those Portions of the Ordinance not legislatively or judicially invalidated shall remain in effect.
3. This Ordinance is deemed of immediate importance and will take effect upon final publication.

Vegetation Management Biologist

Dept Div: Conservation

FLSA Status: Non-Exempt

General Definition of Work

Performs difficult skilled technical work ensuring compliance with the Iowa State code regarding Integrated Roadside Vegetation Management (IRVM), developing, planning, and administering a program of vegetation management to control unwanted vegetation and to promote desirable vegetation on county rights-of-way and public drainage ditches, preserving and restoring natural prairie lands, coordinating program priorities with County Engineer and Secondary Roads staff, and related work as apparent or assigned. Work is performed under the general direction of the Director of Conservation. Continuous supervision is exercised over Vegetation Management Specialist.

Qualification Requirements

To perform this job successfully, an individual must be able to perform each essential function satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Essential Functions

Develops, plans, and administers a program to control problem vegetation in rights-of-way and drainage districts;
preserves and restores natural prairie lands; maintains required records.

Supervises and participates in planting and maintaining native and introduced grass and flower communities in newly graded, cleaned out, or otherwise disturbed sites on county rights-of-way. Oversees maintenance and record keeping on equipment, facilities, and vehicles assigned to the IRVM program. Oversees and provides technical support for rental of conservation planting equipment; conducts ongoing in-service training within budget limitations.

Cooperates with universities and other agencies in conducting research and analyzing data to determine trends in roadside vegetation and wildlife and help facilitate IRVM decisions. Networks with support groups and agencies such as FSA, NRCS, Pheasants Forever, etc. to implement IRVM goals. Submits periodic reports on the IRVM program to the Conservation Board, County Engineer, and Board of Supervisors.

Prepares grant applications.

Knowledge, Skills and Abilities

Thorough knowledge of natural resource conservation principles and practices; thorough knowledge of the common practices, tools, terminology and safety precautions of park, weed, right of way and equipment maintenance; thorough knowledge of chemical application related to vegetation management; thorough knowledge of the use and characteristics of common building and thorough knowledge of the use and characteristics of common park, weed, right of way and equipment and tools including but not limited to trucks, tractors, mowers, brush chippers, chain saws, firefighting equipment, and power tools; ability to create and maintain applicable records of service; ability to operate standard office equipment and related hardware and software; ability to learn specialized software related to department needs; ability to learn specialized tools and equipment necessary for business needs; ability to work from sketches, drawings, plans or specifications; ability to follow oral and written instructions; ability to estimate needed materials and time required for various jobs; ability to establish and maintain effective working relationships with staff and the general public.

Education and Experience

Bachelor's degree with coursework in botany, biology, natural resources, or related field and moderate experience in a related position, or equivalent combination of education and experience.

Physical Requirements

This work requires the frequent exertion of up to 25 pounds of force and occasional exertion of up to 50 pounds of force; work regularly requires standing, using hands to finger, handle or feel and reaching with hands and arms,

frequently requires walking, sitting, speaking or hearing, climbing or balancing, stooping, kneeling, crouching or crawling, pushing or pulling and lifting and occasionally requires tasting or smelling and repetitive motions; work has standard vision requirements; vocal communication is required for expressing or exchanging ideas by means of the spoken word; hearing is required to perceive information at normal spoken word levels; work requires preparing and analyzing written or computer data, visual inspection involving small defects and/or small parts, using of measuring devices, assembly or fabrication of parts within arms length, operating machines, operating motor vehicles or equipment and observing general surroundings and activities; work regularly requires exposure to toxic or caustic chemicals and exposure to outdoor weather conditions, frequently requires exposure to fumes or airborne particles and occasionally requires working near moving mechanical parts, exposure to the risk of electrical shock, working with explosives and wearing a self contained breathing apparatus; work is generally in a moderately noisy location (e.g. business office, light traffic).

Special Requirements

Valid certification for completion of NWCG S130 and S190 within six (6) months. Pesticide applicator license category 1A,5, and 6 within six (6) months.

Commercial driver's license with airbrake endorsement in the State of Iowa within six (6) months.

Applicable position, department, organization and professional training will be provided and must be completed upon hire and on an ongoing basis.

Valid driver's license in the State of Iowa.

Last Revised: 12/5/2011

Vegetation Management Specialist

Dept/Div: Conservation

FLSA Status: Non-Exempt

General Definition of Work

Performs intermediate technical work assisting with duties associated with the Story County Conservation Integrated Roadside Vegetation Management (IRVM) program and drainage district management, and related work as apparent or assigned. Work is performed under the general direction of the Vegetation Management Biologist.

Qualification Requirements

To perform this job successfully, an individual must be able to perform each essential function satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Essential Functions

Prioritizes and implements Drainage District vegetation management, using all aspects of integrated vegetation management operations.

Assists with the implementation and planning of all aspects of integrated vegetation management. Duties include, but not limited to; noxious and invasive weed control, brush control and prairie management, duties associated with equipment rental.

Operates appropriate equipment to carryout brush and weed control including the wise use of chemical pesticides. Supervises seasonal employee(s) and vegetation management control contractors. Plans and conducts prescribed burns.

Provides technical advice to landowners and other government entities in relation to vegetation management. Maintains project documentation. Stays progressive and is involved in learning the latest trends in IRVM, natural resource management, and safety by attending and participation in meetings, conferences, and workshops; as appropriate. Conducts preventive maintenance and repairs on equipment.

Assists other Story County employees, the public and other government entities with special projects.

Knowledge, Skills and Abilities

Thorough knowledge of the common practices, tools, terminology and safety precautions of drainage and ditch maintenance; thorough knowledge of the use and characteristics of common drainage and ditch equipment and tools; ability to create and maintain applicable records of service; ability to operate standard office equipment and related hardware and software; ability to learn specialized software related to department needs; ability to learn specialized equipment related to business needs; ability to work from sketches, drawings, plans or specifications; ability to follow oral and written instructions; ability to establish and maintain effective working relationships with staff and the general public.

Education and Experience

Associates/Technical degree with coursework in in botany, biology, or other natural resource concentration, or related field and moderate experience in a conservation field, or equivalent combination of education and experience.

Physical Requirements

This work requires the regular exertion of up to 10 pounds of force, frequent exertion of up to 25 pounds of force and occasional exertion of up to 50 pounds of force; work regularly requires standing, walking, speaking or hearing, using hands to finger, handle or feel, reaching with hands and arms, pushing or pulling and lifting, frequently requires stooping, kneeling, crouching or crawling and occasionally requires sitting, climbing or balancing, tasting or smelling and repetitive motions; work has standard vision requirements; vocal communication is required for expressing or exchanging ideas by means of the spoken word and conveying detailed or important instructions to others accurately, loudly or quickly; hearing is required to perceive information at normal spoken word levels; work requires visual

inspection involving small defects and/or small parts, operating machines, operating motor vehicles or equipment and observing general surroundings and activities; work regularly requires exposure to fumes or airborne particles and exposure to outdoor weather conditions, frequently requires working near moving mechanical parts and exposure to toxic or caustic chemicals and occasionally requires wet, humid conditions (non-weather), working in high, precarious places, exposure to extreme heat (non-weather), exposure to vibration, wearing a self contained breathing apparatus and exposure to bloodborne pathogens and may be required to wear specialized personal protective equipment; work is generally in a moderately noisy location (e.g. business office, light traffic).

Special Requirements

Certificate of completion for S-130, S-190 wildland firefighting courses.

1A, 5 and 6 pesticide applicator licenses.

Valid commercial driver's license with air brake and tanker endorsement in the State of Iowa.

Last Revised: 3/26/2012

Vegetation Survey Results

correlations of story county veg survey data 1990 192
 14:23 Friday, February 1, 1991

CORRELATION ANALYSIS

36 'VAR' Variables:

BRM	RCG	QKG	OCG	SWG	BBS
IDG	CWR	LBS	PDS	SOG	OWG
GRW	WPN	CTH	MTH	FOX	OWD
PCC	CAT	SEG	EQS	TUR	SCR
NAT	BRU	HAY	PAS	ROW	FRM
DEV	NFL	AFL	MFR	BUF	DEP

Simple Statistics

Variable	N	Mean	Std Dev	Sum	Minimum	Maximum
BRM <i>Brome</i>	288	3.98264	1.11517	1147	0	5.00000
RCG <i>Road Canary</i>	288	0.31597	0.66324	91.00000	0	3.00000
QKG <i>Quick grass</i>	288	0.05903	0.23609	17.00000	0	1.00000
OCG <i>Other Cook-stem</i>	288	0.09722	0.35060	28.00000	0	2.00000
SWG <i>Sweetie</i>	288	0.26389	0.50068	76.00000	0	3.00000
BBS <i>Big blue</i>	288	1.00347	0.74897	289.00000	0	4.00000
IDG <i>Indian</i>	288	0.30556	0.55722	88.00000	0	3.00000
CWR <i>Canada Wild</i>	288	0.45486	0.55816	131.00000	0	2.00000
LBS <i>Little blue</i>	288	0.01389	0.11723	4.00000	0	1.00000
PDS <i>Prairie dropseed</i>	288	0.21181	0.51487	61.00000	0	3.00000
SOG <i>Side oats grama</i>	288	0.00347	0.05893	1.00000	0	1.00000
OWG <i>Other warm season</i>	288	0.03819	0.19200	11.00000	0	1.00000
GRW <i>Great Ragweed</i>	288	1.07639	1.04318	310.00000	0	4.00000
WPN <i>Wild yamnip</i>	288	0.06597	0.24867	19.00000	0	1.00000
CTH <i>Canada Thistle</i>	288	0.08333	0.27687	24.00000	0	1.00000
MTH <i>Musk thistle</i>	288	0.04514	0.20797	13.00000	0	1.00000
FOX <i>Foxtail</i>	288	0.92708	1.03167	267.00000	0	5.00000
OWD <i>Other weeds</i>	288	0.65278	0.76345	188.00000	0	4.00000
PCC <i>Prairie cord g</i>	288	1.06597	0.73666	307.00000	0	3.00000
CAT <i>Cattails</i>	288	0.21528	0.42832	62.00000	0	2.00000
SEG <i>Sedges</i>	288	0.06597	0.28765	19.00000	0	2.00000
EQS <i>Equisetum</i>	288	0.17708	0.48665	51.00000	0	3.00000
TUR <i>Turf grass</i>	288	0.70833	1.09082	204.00000	0	5.00000
SCR <i>Scraped</i>	288	0.26389	0.76497	76.00000	0	5.00000
NAT <i>Natural ditch</i>	288	4.57639	1.21305	1318	0	5.00000
BRU <i>Brush</i>	288	0.46875	0.68767	135.00000	0	3.00000
HAY <i>Hay ground</i>	288	0.80903	1.16046	233.00000	0	5.00000
PAS <i>Pasture</i>	288	0.35069	0.77320	101.00000	0	5.00000
ROW <i>Row crop</i>	288	4.26389	1.32773	1228	0	5.00000
FRM <i>Farmstead</i>	288	0.79514	0.66499	229.00000	0	4.00000
DEV <i>Developed</i>	288	0.24306	0.91634	70.00000	0	5.00000
NFL <i>Native flowers</i>	288	0.55903	0.63848	161.00000	0	3.00000
AFL <i>Alien flowers</i>	288	0.11111	0.32570	32.00000	0	2.00000
MFR <i>Mule Ebn rose</i>	288	0.00694	0.08319	2.00000	0	1.00000
BUF <i>Buffer strip</i>	288	0.75694	1.13694	218.00000	0	5.00000
DEP <i>Soil deposits</i>	288	1.25347	1.06004	361.00000	0	4.00000

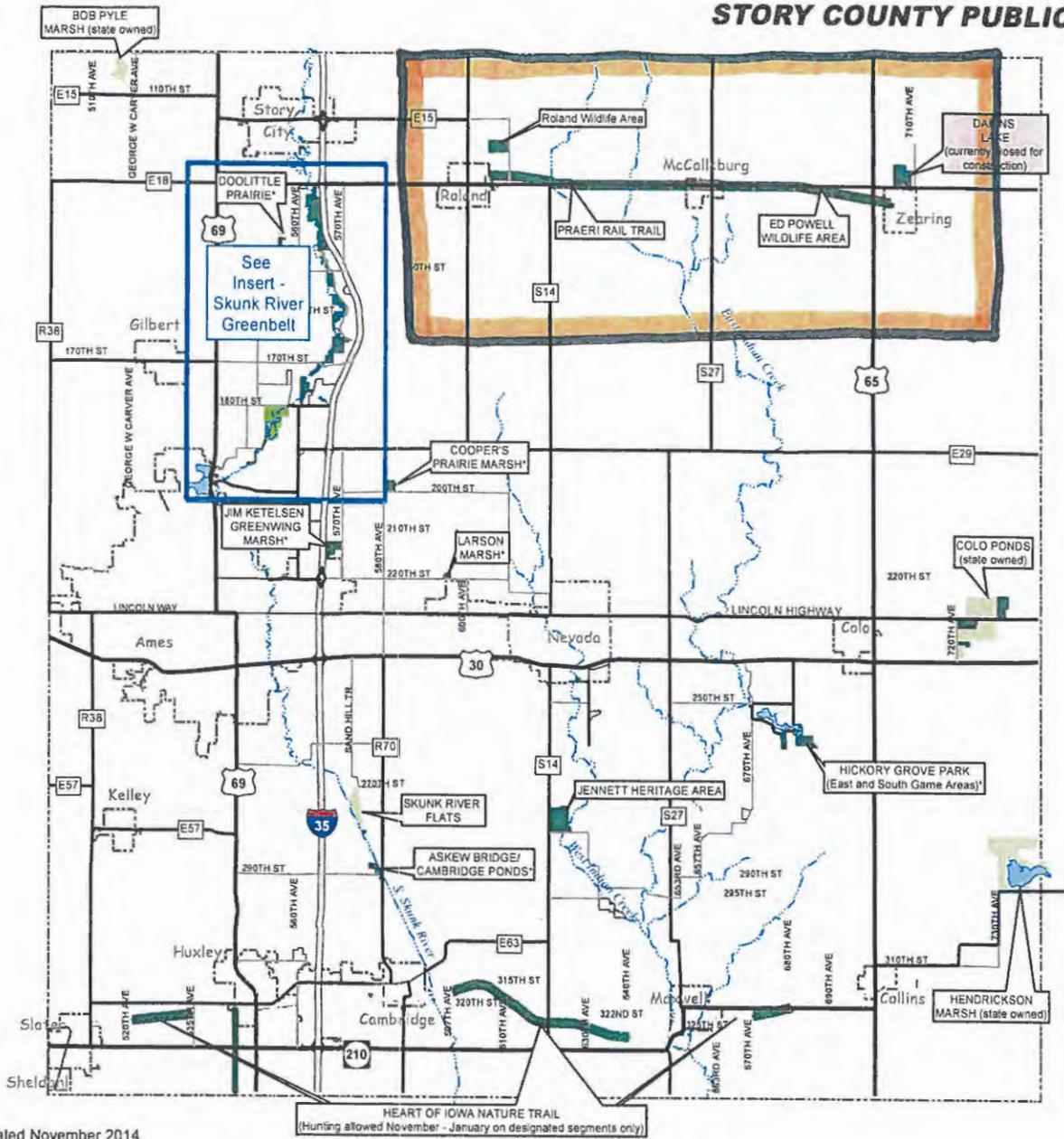
Rank
 1 - 5

1 - 5%
 2 - 25%
 3 - 50%
 4 - 75%
 5 - 100%

*Estimated percentages from
 Ranked values*

Prairie Rail Trail Remnant

STORY COUNTY PUBLIC

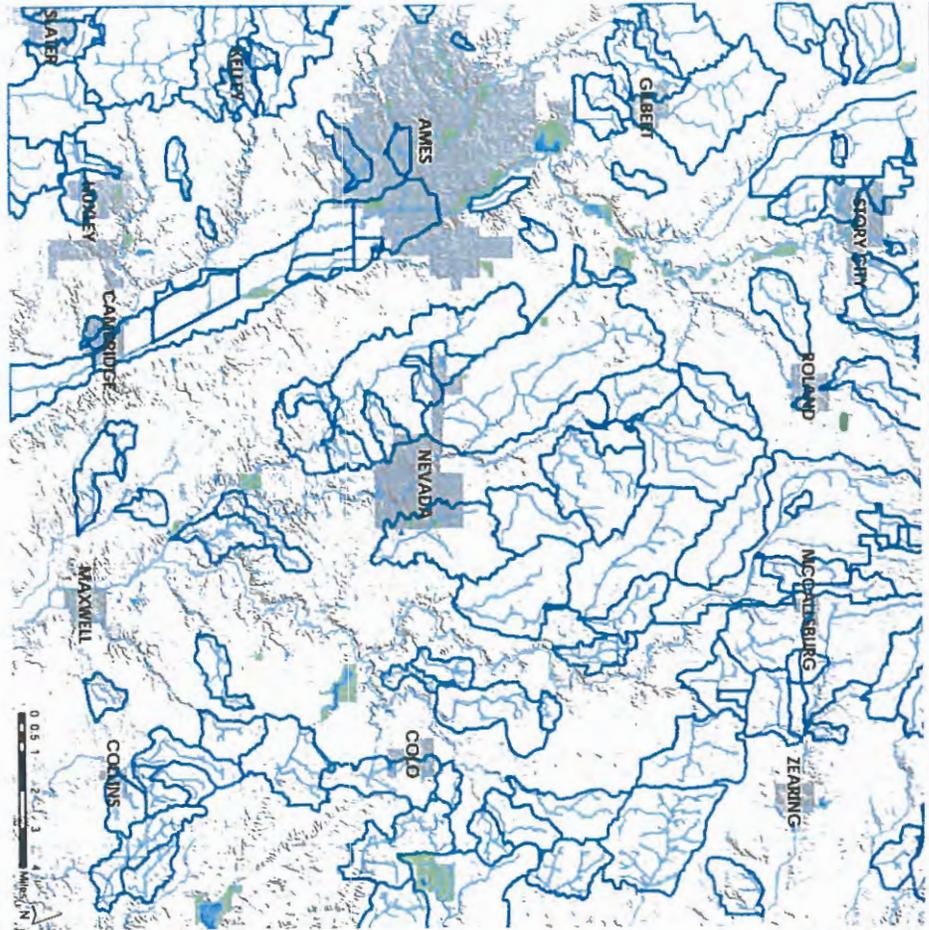


Praeri Rail Trail-Species List		
Common name	Scientific name	Coefficient of Conservatism
Yarrow	<i>Achillea millefolium</i>	0
Yellow giant-hyssop	<i>Agastache nepetoides</i> (L.) Kuntze	4
Tall agrimony	<i>Agrimonia gryposepala</i>	3
Canada anemone	<i>Anemone canadensis</i>	2
Thimbleweed	<i>Anemone</i> sp.	7
Swamp milkweed	<i>Asclepias hirtella</i>	5
Common milkweed	<i>Asclepias syriaca</i>	0
Whorled milkweed	<i>Asclepias verticillata</i>	8
Frost aster	<i>Aster ericoides</i>	3
New England aster	<i>Aster novae-angliae</i>	3
Canada milk vetch	<i>Astragalus canadensis</i>	4
Rattlesnake fern	<i>Botrychium virginianum</i> (L.) Sw	6
American bellflower	<i>Campanula americana</i>	4
Spring cress	<i>Cardamine bulbosa</i>	6
Sedge sp.	<i>Carex</i> sp.	
Turtlehead	<i>Chelone glabra</i>	8
Water hemlock	<i>Cicuta maculata</i> L.	7
Thistle sp	<i>Cirsium</i> sp.	6
Bastard toadflax	<i>Comandra umbellata</i>	6
Showy tick trefoil	<i>Desmodium canadensis</i>	6
Rye sp	<i>Elymus</i> sp.	
Horsetail	<i>Equisetum</i> sp	
Tall boneset	<i>Eupatorium perfoliatum</i>	6
Wild strawberry	<i>Fragaria virginiana</i> Duchesne	3
Bedstraw	<i>Galium</i> sp	
Bottle gentian	<i>Gentiana andrewsii</i> Griseb.	8
Stiff Gentian	<i>Gentianella quinquefolia</i>	8
Rough Avens	<i>Geum virginianum</i>	4
Sneezeweed	<i>Helenium autumnale</i>	4
Yellow star grass	<i>Hypoxis hirsuta</i> (L.) Colville	7
Morning glory - bindweed	<i>Ipomoea</i> sp.	
Round-headed bush clover	<i>Lespedeza capitata</i>	3
Cardinal flower	<i>Lobelia cardinalis</i>	5
Great lobelia	<i>Lobelia siphilitica</i>	3
Palespike lobelia	<i>Lobelia spicata</i> Lam.	6
Whorled/narrow leaved loostrife	<i>Lysimachia quadriflora</i>	
Fringed loosestrife	<i>Lysimachia ciliata</i>	4
Winged loosestrife	<i>Lythrum alatum</i>	3
Horsemint	<i>Monarda fistulosa</i>	2
Common primrose	<i>Oenothera</i> sp.	

Yellow wood sorrel	<i>Oxalis sp.</i>	0
Panic grass	<i>Panicum sp.</i>	
Wild parsnip	<i>Pastinaca sativa</i>	
Swamp lousewort	<i>Pedicularis lanceolata</i>	7
Lopseed	<i>Phryma leptostachya</i>	4
Poison ivy	<i>Phus radicans</i>	0
Clammy ground cherry	<i>Physalis</i>	
Cinquefoil	<i>Potentilla sp</i>	
Heal-all	<i>Prunella vulgaris</i>	0
Mountain mint	<i>Pycnanthemum sp.</i>	4
Greyheaded cone flower	<i>Ratibida pinnata</i>	4
Black-eyed susan	<i>Rudbeckia hirta</i>	2
Sweet Blackeyed susan	<i>Rudbeckia subtomatosa</i>	4
Dark green bulrush	<i>Scripus atrovirens Willd.</i>	1
Prairie ragwort	<i>Senecio plattensis</i>	3
Goldenrod sp	<i>Solidago sp</i>	
Missouri goldenrod?	<i>Solidago sp.</i>	
Cord grass	<i>Spartina pectinata Link</i>	4
Ladies tresses orchid	<i>Spiranthese sp.</i>	
American germander	<i>Teucrium canadense</i>	4
Goatsbeard	<i>Tragopogon Dubius Scop.</i>	
False cofee	<i>Triosteum perfoliatum L.</i>	4
Blue vervain	<i>Verbena hastata</i>	3
Hoary vervain	<i>Verbena stricta</i>	1
White vervain	<i>Verbena urticifolia</i>	2
Ironweed	<i>Veronia sp.</i>	1
Culver's root	<i>Veronicastrum virginicum</i>	5
Common violet	<i>Viola pratincola</i>	
Golden alexander	<i>Zizia sp.</i>	
		4.27
The method assigns a Coefficient of Conservatism to each native plant species based on that species tolerance for disturbance and fidelity to a particular pre-settlement plant community type. The aggregate conservatism of all the plants inhabiting a site determine its floristic quality.		
Dogwood		
Brome		
Eastern red cedar		

Location	Noted Species	Location	Noted Species
Bohn Cemetery	blue-eyed grass	EIR Plant List	yarrow
	porcupine grass		yellow giant hyssop
	golden alexander		tall agrimony
	flowering spurge		canada anemone
	lead plant		thimbleweed
	bastard toadflax		swamp milkweed
	clammy ground cherry		common milkweed
	prairie phlox		worsted milkweed
	scribners panic grass		frost aster
	white sage		new england aster
	rattlesnake master		canada milk vetch
	spiderwort		rattlesnake fern
	showy tick-trefoil		american bellflower
	indian grass		spring cress
	bergamont		sedge sp
	wild rose		turtlehead
	butterfly milk weed		water hemlock
golden rod	thistle sp		
aster sp	bastard toadflax		
Deeter Cemetery	indian grass	showy tick-trefoil	
	big bluestem	rye sp	
	little bluestem	horsetail	
	canada wild rye	tall boneset	
	roundhead bush clover	wild strawberry	
	bergamont	bedstraw	
	mountain mint	bottle gentian	
	thimbleweed	stiff gentian	
	field thistle	rough avens	
	aster sp	sneeze weed	
	lettuce	yellow stargrass	
	goldenrod sp	morning glory bindweed	
Pleasant Run cemetery	indian grass	round-headed bush clover	
	big bluestem	cardinal flower	
	little bluestem	great obelia	
	sideoats gramma	paespae lobelia	
	prairie dropseed	whorled/narrow leaved lodostetris	
	low-growing panicum	fringed foosestrife	
	muhly sp	winged foosestrife	
	showy goldenrod	horsemint	
	tall goldenrod	common primrose	
	stiff goldenrod	yellow wood sorrel	
	leadplant	panic grass	
	Mound Cemetery	lead plant	wild parsnip
big bluestem		swamp housewort	
white sage		lopsed	
canada milk vetch		poison ivy	
cream false indigo		clammy ground cherry	
side-oats gramma		cinquefoil	
false boneset		heal-all	
brome grass		mountain mint	
sedge		gray-headed cone flower	
new jersey tea		black-eyed susan	
bastard toadflax		sweet blackeyed susan	
horseweed		dark green bulrush	
white prairie clover		prairie ragwort	
flowering spurge		golden rod sp	
roundheaded bush clover		cord grass	
bergamont		ladies tresses orchid	
common evening primrose		american germander	
gray headed cone flower	goatsbeard		
wild rose	false coffee		
little bluestem	blue vervain		
showy goldenrod	hoary vervain		
birds-foot violet	ironweed		
golden alexander	culver's root		
american vetch	common violet		
clammy ground cherry	golden alexander		
Murphy Cemetery	big bluestem		
	indian grass		
	gray-headed cone flower		
	pale purple coneflower		
	new jersey tea		
	leadplant		
rough blazing star			
compass plant			

Watersheds



- Legend**
- Rivers and Streams
 - Parks and Green Space
 - Story County
 - City Limits
 - Drainage Districts

MAP 13 | STORY COUNTY DRAINAGE DISTRICTS MAP

GIS Data Sources:
 Story County GIS Coordinator, Matt Boeck
 Iowa Department of Natural Resources GIS Library (IRGIS)



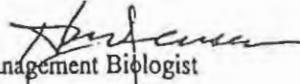
Drainage Districts



STORY COUNTY

Secondary Road Department
Harold M. Jensen, P.E./L.S., County Engineer
Darren R. Moon, E.I., Assistant Engineer
Angie Sheeley, Financial Data Technician
Jeffery Biddle, Maintenance Superintendent

837 N Avenue
Nevada, Iowa 50201
515/382-7355
Fax 515/382-7369

DATE: February 19, 1999
TO: Story County Board of Supervisors
FROM: Harold M. Jensen, P.E./L.S. 
Joseph Kooiker, Roadside Management Biologist
RE: Drainage District Maintenance Plan

After meeting with the Board of Supervisors concerning drainage district maintenance on February 8, 1999, a second meeting was held on February to discuss maintenance issues further. This working group included Joe Kooiker, Joe McGovern, Scott Wall, Harold Jensen, Jeff Biddle, Ron Peterson, and Steve Lekwa. On February 19, 1999, a meeting was held with NRCS Representative Dennis Schodt and Fox Engineering Representative Scott Renaud. Information concerning buffer strip options and tree removal was presented. Further discussion between Jensen and Kooiker concluded the following:

Preventive maintenance along Story County's drainage system is advised. Open ditch drainage districts were classified as follows:

CLASS I: A RECENTLY CLEANED-OUT DITCH. Management options include following up with stable grass plantings through volunteer sign-up. Cost sharing through NRCS would be advised. These buffer strips could be burned annually by the landowners, reducing the threat of brush encroachment.

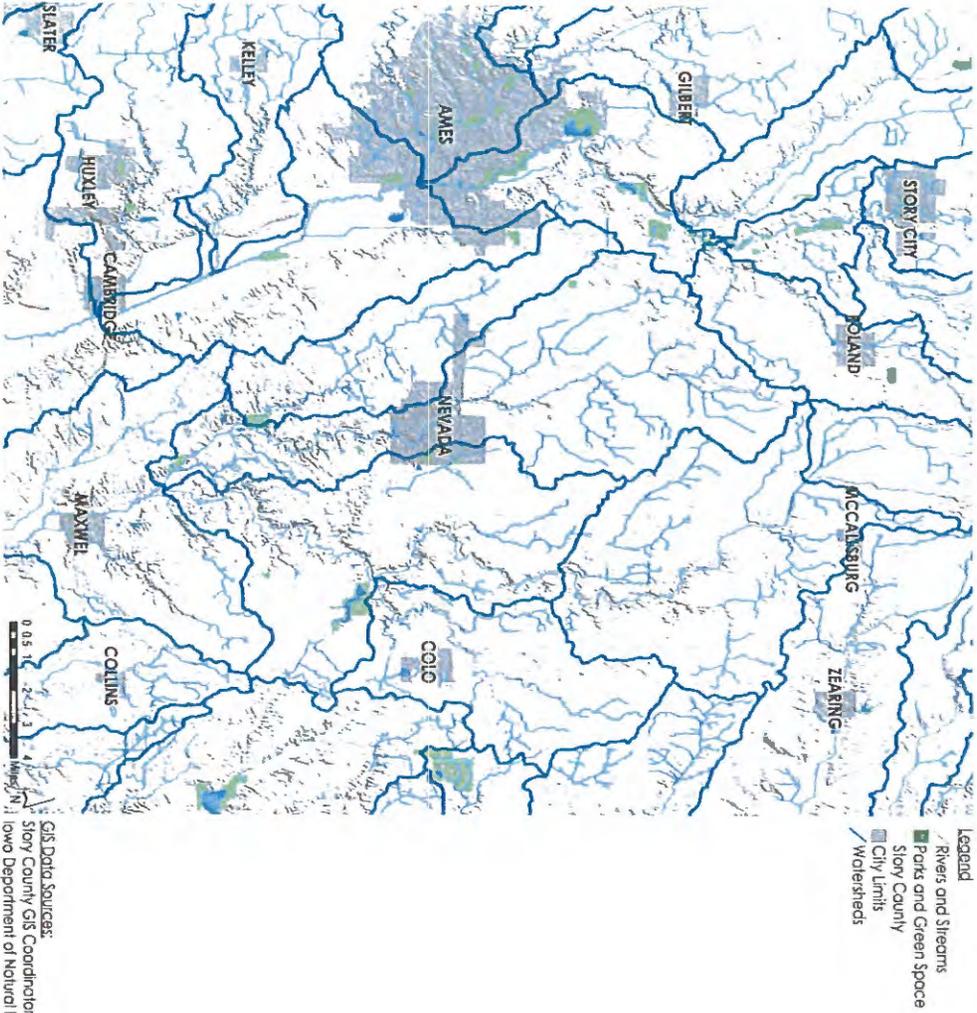
CLASS II: OPEN DITCH WITH MINIMAL BRUSH CONCERNS; Maximum height of brush is 6'. Management options include promotion of buffer strips and contract spraying of brush.

CLASS III: OPEN DITCH WITH HEAVY BRUSH CONCERNS; Maximum height of brush is 15'. Management options include promotion of buffer strips and contract spraying.

CLASS IV: OPEN DITCH WITH TREES; Height of trees is 15' and above. Management options include promotion of buffer strips and contract tree cutting (logging), followed by Class I or II Maintenance.

CLASS V: OPEN DITCH FULL OF TREES AND SILT. Management options include logging and re-grading or cleaning out the ditch.

MAP 7 | STORY COUNTY WATERSHEDS MAP

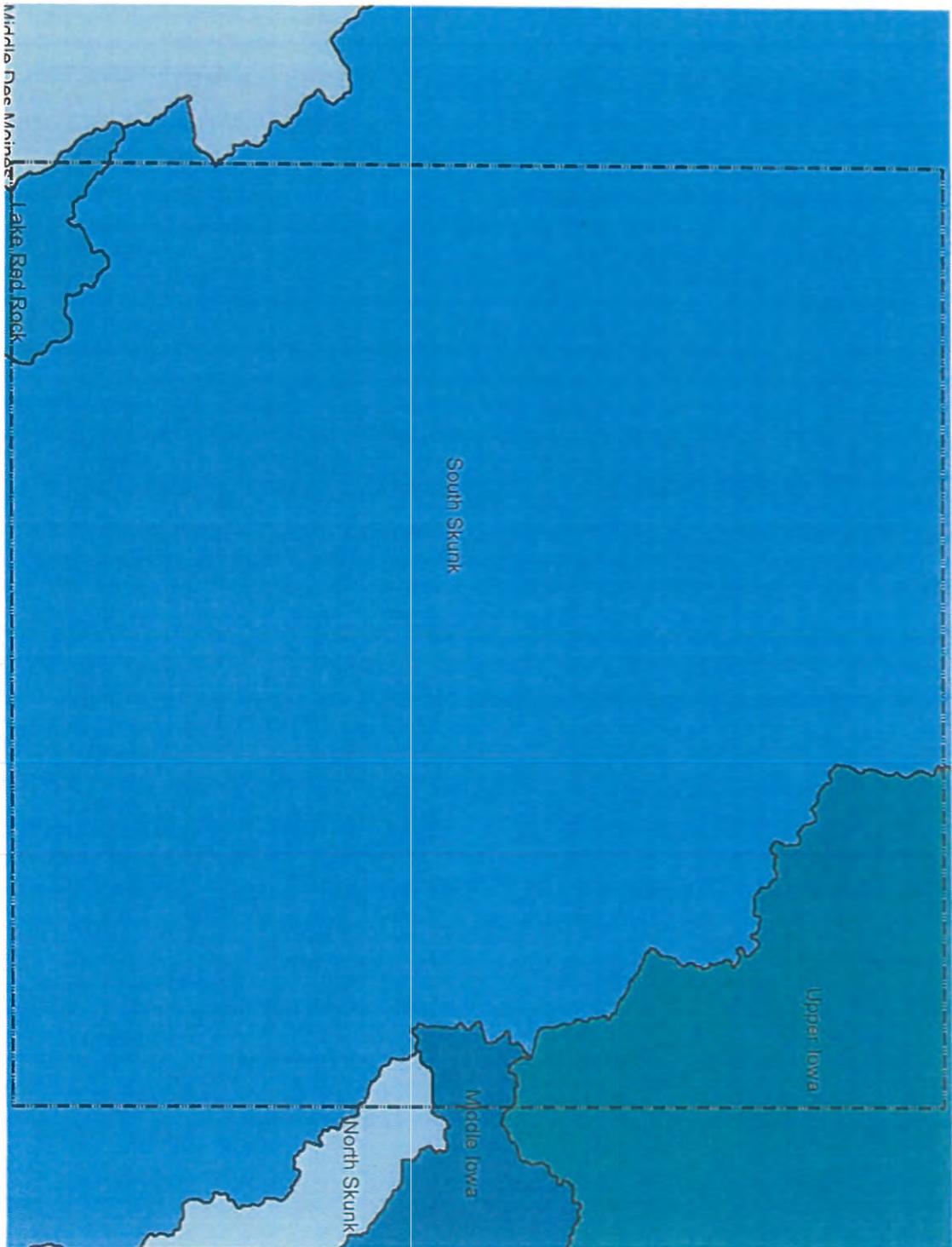


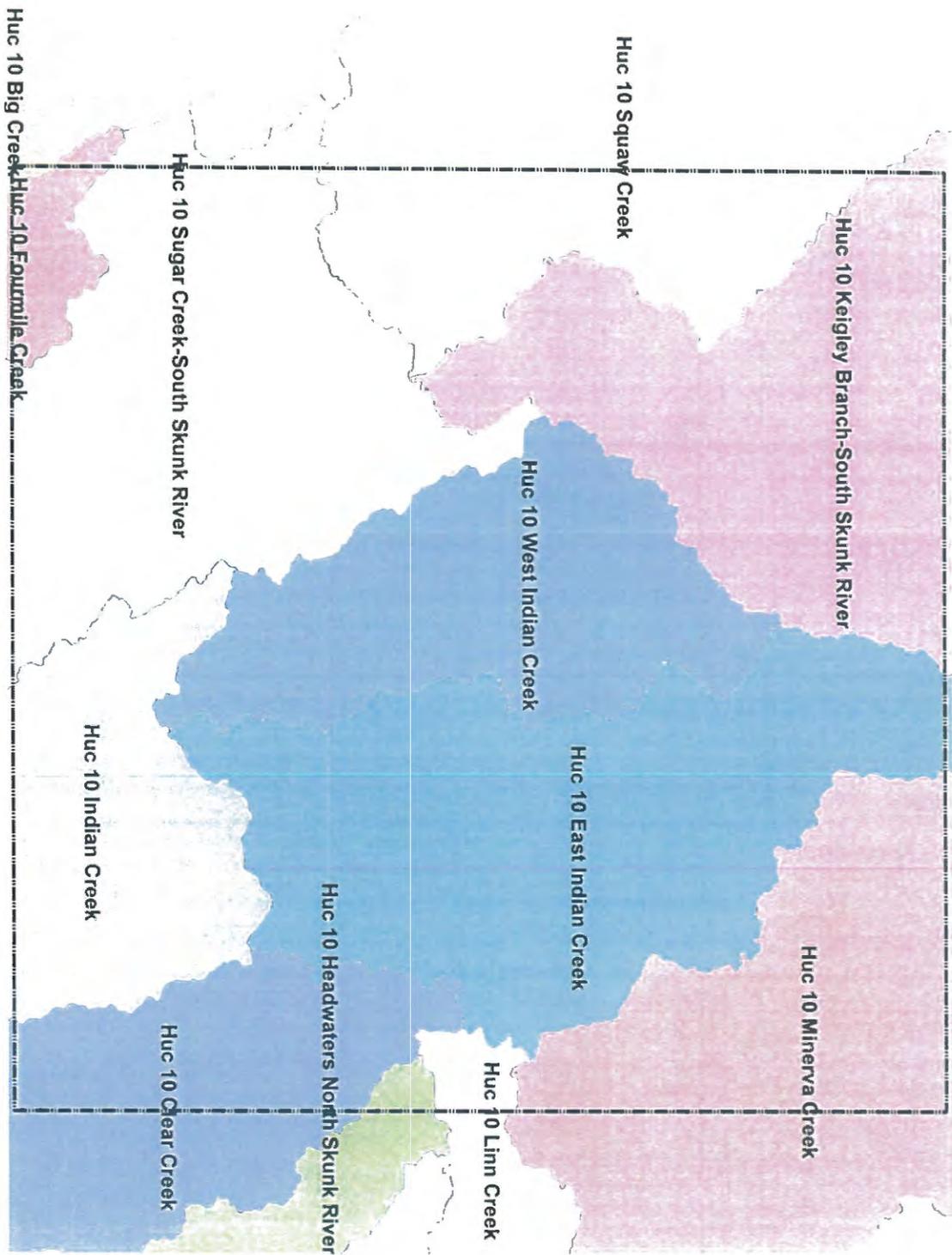
- Legend**
- Rivers and Streams
 - Parks and Green Space
 - Story County
 - City Limits
 - Watersheds

GIS Data Sources:
 Story County GIS Coordinator, Matt Beck
 Iowa Department of Natural Resources GIS Library (NRGIS)

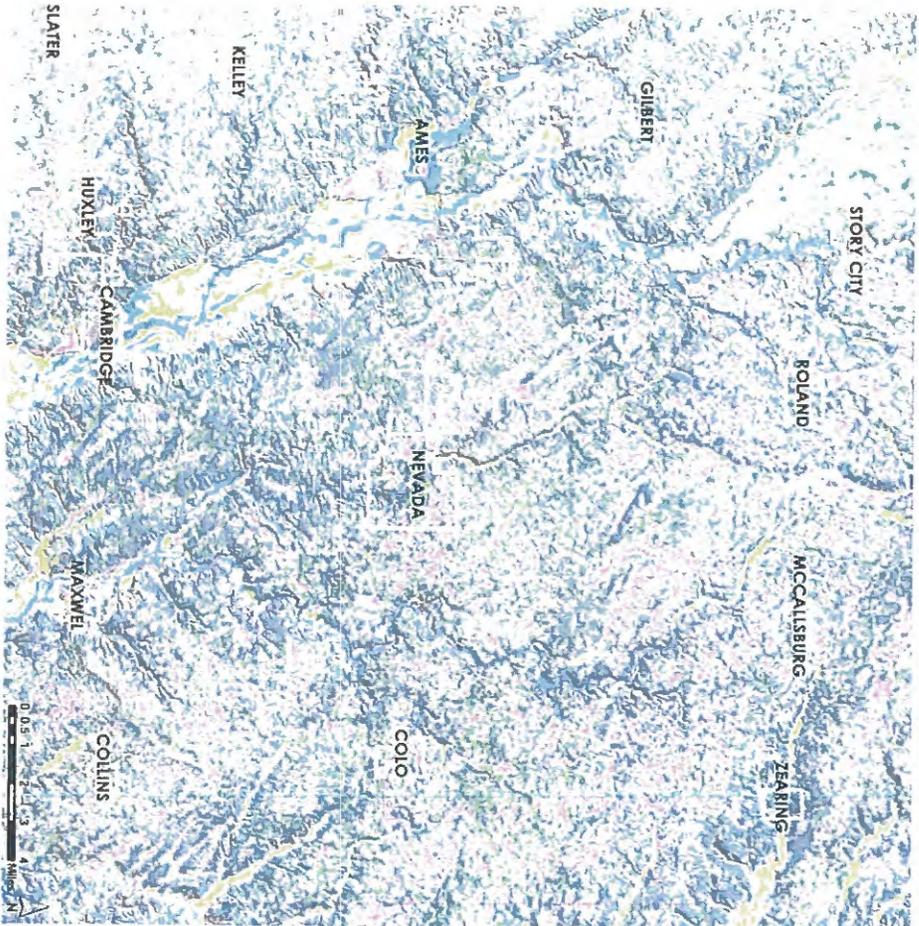


Huc 8 subbasin	HUC_8	HU_10_NAME	HU_12_NAME	Total Huc 12 Acres	Acres in Story County	Percent of Huc 12 In Story County
South Skunk River	07080105	Keigley Branch-South Skunk River	Long Dick Creek	23,565	4,860	20.62%
South Skunk River	07080105	Keigley Branch-South Skunk River	Bear Creek	18,497	11,660	63.04%
South Skunk River	07080105	West Indian Creek	West Indian Creek	31,628	31,628	100.00%
South Skunk River	07080105	Clear Creek	Mud Creek-Clear Creek	29,846	5,337	17.88%
South Skunk River	07080105	Sugar Creek-South Skunk River	Walnut Creek	12,507	10,897	87.12%
South Skunk River	07080105	Sugar Creek-South Skunk River	Coon Creek-South Skunk River	31,384	11,189	35.65%
South Skunk River	07080105	Keigley Branch-South Skunk River	Headwaters Keigley Branch	18,108	3,240	17.90%
South Skunk River	07080105	Indian Creek	Ballard Creek	18,963	17,337	91.43%
South Skunk River	07080105	Squaw Creek	Rock & Callamus Creeks-Indian Creek	22,987	22,142	96.33%
South Skunk River	07080105	Indian Creek	Worrell Creek-Squaw Creek	23,273	11,779	50.61%
South Skunk River	07080105	Indian Creek	Wolf Creek	13,306	8,394	63.09%
South Skunk River	07080105	Clear Creek	Headwaters Clear Creek	24,049	16,435	68.34%
South Skunk River	07080105	Squaw Creek	Onion Creek	12,733	2,012	15.80%
South Skunk River	07080105	East Indian Creek	East Indian Creek	26,573	26,573	100.00%
South Skunk River	07080105	West Indian Creek	Drainage Ditch 5	13,230	13,230	100.00%
South Skunk River	07080105	Sugar Creek-South Skunk River	Drainage Ditch 13-South Skunk River	22,734	22,734	100.00%
South Skunk River	07080105	Keigley Branch-South Skunk River	Miller Creek-South Skunk River	21,038	5,316	25.27%
South Skunk River	07080105	Squaw Creek	Lundys Creek-Squaw Creek	27,168	14,500	53.37%
South Skunk River	07080105	Keigley Branch-South Skunk River	Keigley Branch	15,254	12,042	78.94%
South Skunk River	07080105	East Indian Creek	Dye Creek	15,905	15,905	100.00%
South Skunk River	07080105	Indian Creek	Peoria Cemetery-Indian Creek	13,275	3,018	22.73%
South Skunk River	07080105	Keigley Branch-South Skunk River	City of Ames-South Skunk River	19,675	19,675	100.00%
South Skunk River	07080105	East Indian Creek	Drainage Ditch 81-East Indian Creek	26,563	26,563	100.00%
South Skunk River	07080105	East Indian Creek	Headwaters East Indian Creek	13,338	7,300	54.74%
North Skunk River	07080106	Headwaters North Skunk River	Headwaters North Skunk River	34,183	1,157	3.39%
Upper Iowa River	07080207	Minerva Creek	South Minerva Creek	17,193	8,269	48.09%
Upper Iowa River	07080207	Minerva Creek	Headwaters Minerva Creek	35,246	1,562	4.72%
Upper Iowa River	07080207	Minerva Creek	Headwaters Minerva Creek	10,901	6,309	57.88%
Upper Iowa River	07080207	Minerva Creek	Hardin Story Drainage Ditch No 1	26,732	20,111	75.23%
Middle River	07080208	Linn Creek	Headwaters Linn Creek	23,982	2,930	12.22%
Middle Des Moines River	07100004	Big Creek	Big Creek	16,161	216	1.34%
Middle Des Moines River	07100004	Big Creek	Headwaters Big Creek	28,849	2	0.01%
Lake Red Rock	07100008	Fournille Creek	Upper Fournille Creek	28,825	5,442	18.88%
				Total Acres	369,868	





Story County Soils



Legend of Soil Types

- City Boundaries
- Ankeny
- Biscoy
- Bode
- Consteeo
- Clarion-Storden
- Coland
- Coland-Terril
- Cordova
- Cylinder 24-32"
- Cylinder 33-40"
- Dam
- Dickinson
- Estherville
- Farrar
- Flagler
- Hambon
- Hambon-Spillsville
- Harps
- Harps-Okoboji
- Hoyden
- Hoyden-Storden
- Kassuth
- Lester
- Lindley
- Nicollier
- Okoboji
- Orthens Loomy
- Orthens Sandy
- Ottosen
- Palms
- Pits Clay
- Pits Gravel
- Pits Quarry
- River
- Rollie
- Sparto
- Spillsville
- Spillsville-Coland
- Storden
- Talcot
- Terril
- Urban Land
- Wacousta
- Wacousta
- Waukeee
- Webster
- Zenor
- Zook

SIS Data Sources:
 Story County GIS Coordinator, Matt Baeck
 Iowa Department of Natural Resources GIS Library (NRGIS)



MAP 5 | STORY COUNTY SOIL TYPES MAP

Story County Equipment Inventory

Equipment Inventory

Year/Make/Model	Purchased	Comments
2016 Chevrolet Silverado 3500	12/1/2015	Flatbed installed by Truck Equipment Inc.
2004 Ford F-350	4/1/2004	Flatbed installed by Schuling Hitch
2000 Chevrolet 3500	2/1/2000	
2010 Polaris Ranger HD 4X4	12/1/2009	
1996 Int. 4900 Tandem Axle Truck	6/1/1995	
JD 6110	12/1/1998	Permanently attached 20' boom mower
JD 5115M	7/1/2013	Grapple Loader for brush removal
MF 230	4/1/1990	
A/C Model 72 Combine #1	9/1/2003	
A/C Model 72 Combine #2	9/1/1999	
A/C Model 72 Combine #3	3/1/2014	
Diamond 10' Batwing Mower	8/1/2013	
JD MX 7 Rotary Mower	7/1/2000	
JD 25A Flail Mower	6/1/1991	
2014 Bowie 1500 Hydromulcher	11/14/2016	
300 Gal. Sprayer w/Raven Injector	4/1/2012	
300 Gal. John Bean High Pressure	10/1/2005	
250 Gal. 3 Pt. 15' Boom Sprayer	6/1/2003	
200 Gal. Nurse Tank w/ pump	10/5/2016	
250 Gal. Brushwacker Skid Unit	5/1/2007	
60 Gal. Sprayland Skid Unit	5/1/2011	
Truax Flex II 10' Seed Drill	1/1/2004	
Truax Flex II 8' Seed Drill	4/1/1999	
Truax 85 6' Seed Drill	1/1/2015	
Truax 6' Conventional Seed Drill	6/1/1989	

Story County Equipment Inventory

Year/Make/Model	Purchased	Comments
Farm and Home 3 pt. Broadcast	1/1/2000	
Vicon 3 pt. Broadcast Seeder	6/1/2004	
Cultipacker 4' 3 pt.	1/1/1990	
Cultipacker 7' 3 pt.	1/1/1991	
Disc 6.5'	6/1/2002	
Gramegna Ditch Spade	5/16/2016	
Spring Tooth Harrow	6/2/2016	
1987 UTV Trailer	8/1/1987	
1970 Heavy Equipment Trailer	6/1/1973	
MS 391 Stihl Chainsaw 20"	11/15/2016	
MS 361 Stihl Chainsaw 18"	1/1/2008	
MS 180C Stihl Chainsaw 16"	12/12/2016	
MS 024 Stihl Chainsaw 16"	1/1/1987	

Local Prairie Nursery Species Lists

Grant Ely -

Achillea millefolium	Common yarrow
Amorpha canescens	Leadplant
Andropogon gerardi	Big bluestem
Anemone cylindrical	Candle anemone
Aster ericoides	Heath aster
Aster laevis	Smooth aster
Aster novae-angliae	New England aster
Aster pilosus	Frost aster
Astragalus canadensis	Canadian milkvetch
Bouteloua curtipendula	Sideoats grama
Brickellia eupatorioides	False boneset
Carex spp.	Sedge spp.
Chamaecrista fasciculata	Partridge pea
Coreopsis palmate	Stiff tickweed
Dalea candida	White prairie clover
Dalea purpurea	Purple prairie clover
Desmodium canadense	Showy ticktrefoil
Echinacea pallida	Pale purple coneflower
Elymus canadensis	Canada wildrye
Eragrostis spectabilis	Purple lovegrass
Erigeron strigosus	Prairie fleabane
Eryngium yuccifolium	Rattlesnake master
Eupatorium altissimum	Tall boneset
Helenium autumnale	Common sneezeweed
Helianthus grosseserratus	Sawtooth sunflower
Heliopsis helianthoides	Ox-eye
Helianthus x laetiflorus	Showy sunflower
Lespedeza capitata	Roundheaded bushclover
Liatris aspera	Tall blazing star
Liatris pycnostachya	Prairie blazing star
Monarda fistulosa	Wild bergamot
Oenothera biennis	Evening primrose
Onosmodium molle	False gromwell
Panicum virgatum	Switchgrass
Potentilla arguta	Tall cinquefoil
Pycnanthemum virginianum	Virginia mountainmint
Ratibida pinnata	Gray-headed coneflower
Rosa sp.	Wild rose
Rudbeckia hirta	Blackeyed susan
Rudbeckia subtomentosa	Sweet coneflower
Schizachyrium scoparium	Little bluestem
Silphium perfoliatum	Cup plant
Silphium laciniatum	Compass plant
Solidago canadensis	Canada goldenrod
Solidago missouriensis	Prairie goldenrod
Solidago rigida	Stiff goldenrod

Sorghastrum nutans
Sporobolus asper
Sporobolus heterolepis
Thalictrum dasycarpum
Verbena hastata
Verbena stricta
Vernonia fasciculata
Veronicastrum virginicum
Zizia aurea

Indiangrass
Tall dropseed
Prairie dropseed
Purple meadow-rue
Blue vervain
Hoary verbena
Prairie ironweed
Culver's root
Golden alexanders

Stargrass Species List- 2010

<i>Achillea millefolium</i>	Common yarrow
<i>Amorpha canescens</i>	Lead plant
<i>Andropogon gerardi</i>	Big bluestem
<i>Anemone cylindrical</i>	Candle anemone
<i>Aster ericoides</i>	Heath aster
<i>Aster laevis</i>	Smooth aster
<i>Aster novae-angliae</i>	New England aster
<i>Aster pilosus</i>	Frost aster
<i>Astragalus canadensis</i>	Canadian milkvetch
<i>Bouteloua curtipendula</i>	Sideoats grama
<i>Brickellia eupatorioides</i>	False boneset
<i>Carex</i> spp.	Sedge spp.
<i>Chamaecrista fasciculata</i>	Partridge pea
<i>Coreopsis palmata</i>	Stiff tickweed
<i>Dalea candida</i>	White prairie clover
<i>Dalea purpurea</i>	Purple prairie clover
<i>Desmodium canadense</i>	Showy ticktrefoil
<i>Echinacea pallida</i>	Pale purple coneflower
<i>Elymus canadensis</i>	Canada wildrye
<i>Eragrostis spectabilis</i>	Purple lovegrass
<i>Erigeron strigosus</i>	Prairie fleabane
<i>Eryngium yuccifolium</i>	Rattlesnake master
<i>Eupatorium altissimum</i>	Tall boneset
<i>Helenium autumnale</i>	Common sneezeweed
<i>Helianthus grosseserratus</i>	Sawtooth sunflower
<i>Heliopsis helianthoides</i>	Ox- eye
<i>Lespedeza capitata</i>	Roundheaded bushclover
<i>Liatris aspera</i>	Tall blazing star
<i>Liatris pycnostachya</i>	Prairie blazing star
<i>Monarda fistulosa</i>	Wild bergamot
<i>Oenothera biennis</i>	Evening primrose
<i>Onosmodium molle</i>	False gromwell
<i>Panicum virgatum</i>	Switchgrass
<i>Potentilla arguta</i>	Tall cinquefoil
<i>Pycnanthemum virginianum</i>	Virginia mountainmint
<i>Ratibida pinnata</i>	Grey-headed coneflower
<i>Rosa</i> sp.	Wild rose
<i>Rubeckia hirta</i>	Blackeyed susan
<i>Rubeckia subtomentosa</i>	Sweet coneflower
<i>Schizachyrium scoparium</i>	Little bluestem
<i>Silphium perfoliatum</i>	Cup plant
<i>Silphium laciniatum</i>	Compass plant
<i>Solidago canadensis</i>	Canada goldenrod
<i>Solidago missouriensis</i>	Prairie goldenrod
<i>Solidago rigida</i>	Stiff goldenrod

Sorghastrum nutans
Sporobolus asper
Sporobolus heterolepis
Thalictrum dasycarpum
Verbena hastata
Verbena stricta
Vernonia fasciculata
Veronicastrum Virgincicum
Zizia aurea

Indiangrass
Tall dropseed
Prairie dropseed
Purple meadow-rue
Blue vervain
Hoary verbena
Prairie ironweed
Culver's root
Golden alexanders

Karl Hunt

Prairie Creek Prairie Seed List

Scientific Name	Common Name
<i>Achillea lanulosa</i>	Western Yarrow
<i>Andropogon gerardii</i>	Big Bluestem
<i>Anemone cylindrica</i>	Long-Headed Thimbleweed
<i>Aster ericoides</i>	Heath Aster
<i>Aster laevis</i>	Smooth Aster
<i>Aster novae-angliae</i>	New England Aster
<i>Aster pilosus</i>	Frost Aster
<i>Astragalus canadensis</i>	Milk Vetch
<i>Baptisa leucantha</i>	Wild White Indigo
<i>Bouteloua curtipendula</i>	Side-Oats Grama
<i>Brickellia eupatorioides</i>	False Boneset
<i>Chamaecrista fasciculata</i>	Partridge Pea
<i>Cicuta maculata</i>	Water Hemlock
<i>Cirsium altissimum</i>	Tall Thistle
<i>Dalea purpureum</i>	Purple Prairie Clover
<i>Dasmodium canadense</i>	Showy Tick-trefoil
<i>Echinacea pallida</i>	Pale Purple Coneflower
<i>Elymus canadensis</i>	Canada Wild-Rye
<i>Eplobium adenocaulon</i>	Willow Herb
<i>Eryngium yuccifolium</i>	Rattlesnake-Masters
<i>Euthamia graminifolia</i>	Grass-leaved Goldenrod
<i>Gentiana alba</i>	White Gentian
<i>Gentiana andrewsii</i>	Bottle Gentian
<i>Helenium autumnale</i>	Sneezeweed
<i>Helianthus giganteus</i>	Giant Sunflower
<i>Helianthus grosseserratus</i>	Saw-tooth Sunflower
<i>Heliopsis helianthoides</i>	Ox-eye Sunflower
<i>Juncus sp.</i>	Spike Rushes
<i>Lespedeza capitata</i>	Round-headed Bush-clover
<i>Liatris aspera</i>	Rough Blazing-Star
<i>Liatris pycnostachya</i>	Tall Blazing-Star
<i>Lobelia spicata</i>	Pale-spike Lobelia
<i>Lycopus americanus</i>	Cut-Leaved Water-Horehound
<i>Lysimachia quadriflora</i>	Prairie Loosestrife
<i>Lythrum alatum</i>	Wing-angled Loosestrife
<i>Monarda fistulosa</i>	Wild Bergamot
<i>Panicum vergatum</i>	Switch Grass
<i>Potentilla arguta</i>	Tall Cinquefoil
<i>Pycnanthemum virginianum</i>	Mountain Mint
<i>Ratibida pinnata</i>	Gray-Headed Coneflower
<i>Rudbeckia hirta</i>	Black-eyed Susans
<i>Schizachyrium scoparium</i>	Little Bluestem
<i>Silphium integrifolium</i>	Rosinweed
<i>Silphium laciniatum</i>	Compass-plant
<i>Silphium perfoliatum</i>	Cup-plant
<i>Solidago canadensis</i>	Canada Goldenrod
<i>Solidago gigantea</i>	Smooth Goldenrod
<i>Solidago nemoralis</i>	Gray Goldenrod
<i>Solidago riddellii</i>	Riddell's Goldenrod
<i>Solidago rigida</i>	Rigid Goldenrod
<i>Sorghastrum nutans</i>	Indian Grass
<i>Sporobolus asper</i>	Tall Dropseed
<i>Sporobolus heterolepis</i>	Prairie Dropseed
<i>Verbena stricta</i>	Hoary Vervain
<i>Vernonia fasciculata</i>	Western Ironweed
<i>Veronicastrum virginicum</i>	Culver's-Root
<i>Zizia aurea</i>	Golden Alexanders

Pella Corporation - Story City Facility

Prairie Plant List

Ion Exchange

Qty Flats (84 Plugs/Flat)

<i>Amorpha canescens</i>	3	\$42/Flat = \$126
<i>Anemone canadensis</i>	2	\$36/Flat = \$72
<i>Anemone cylindrica</i>	2	\$36/Flat = \$72
<i>Artemisia ludoviciana</i>	1	\$36/Flat = \$36
<i>Asclepias tuberosa</i>	3	\$42/Flat = \$126
<i>Aster azureus</i>	1	\$36/Flat = \$36
<i>Aster ericoides</i>	2	\$36/Flat = \$72
<i>Aster laevis</i>	2	\$36/Flat = \$72
<i>Aster novae-angliae</i>	3	\$36/Flat = \$108
<i>Astragalus canadensis</i>	2	\$36/Flat = \$72
<i>Baptisia leucantha</i>	2	\$36/Flat = \$72
<i>Baptisia leucophaea</i>	2	\$48/Flat = \$96
<i>Ceanothus americanus</i>	2	\$36/Flat = \$72
? <i>Coreopsis tripteris</i>	2	\$36/Flat = \$72
<i>Desmodium canadense</i>	1	\$36/Flat = \$36
? <i>Dodecatheon meadii</i>	4	\$48/Flat = \$192
<i>Echinacea pallida</i>	4	\$36/Flat = \$144
<i>Eryngium yuccifolium</i>	2	\$36/Flat = \$72
<i>Eupatorium maculatum</i>	2	\$36/Flat = \$72
<i>Eupatorium perfoliatum</i>	2	\$36/Flat = \$72
<i>Gentiana andrewsii</i>	3	\$48/Flat = \$144
<i>Helianthus laetiflorus</i>	1	\$36/Flat = \$36
<i>Heliopsis helianthoides</i>	2	\$36/Flat = \$72
<i>Heuchera richardsonii</i>	1	\$36/Flat = \$36
<i>Kuhnia eupatorioides</i>	1	\$36/Flat = \$36
<i>Lespedeza capitata</i>	2	\$36/Flat = \$72
<i>Liatris aspera</i>	2	\$36/Flat = \$72
<i>Liatris pycnostachya</i>	4	\$36/Flat = \$144
<i>Lobelia cardinalis</i>	2	\$36/Flat = \$72
<i>Lobelia siphilitica</i>	2	\$36/Flat = \$72
<i>Monarda fistulosa</i>	2	\$36/Flat = \$72
<i>Petalostemum candidum</i>	2	\$36/Flat = \$72
<i>Petalostemum purpureum</i>	2	\$36/Flat = \$72
<i>Phlox pilosa</i>	4	\$48/Flat = \$192
<i>Potentilla arguta</i>	2	\$36/Flat = \$72

Pella Corporation - Story City Facility

Prairie Plant List

Country Road Greenhouses, Inc.

Qty. Flats - 38 plugs/Flat

✓ Anorpha canescens	2
✓ Anemone cylindrica	2
✓ Asclepias tuberosa	3
✓ Aster laevis	2
✓ Aster novae-angliae	3
✓ Astragalus canadensis	2
✓ Coreopsis palmata	4
✓ Desmodium canadense	2
✓ Echinacea pallida	4
✓ Eryngium yuccifolium	3
✓ Heliopsis helianthoides	2
✓ Lespedeza capitata	2
✓ Liatris aspera	3
✓ Liatris pycnostachya	3
✓ Monarda fistulosa	3
✓ Petalostemum purpureum	3
✓ Potentilla arguta	2
✓ Pycnanthemum virginianum	2
✓ Ratibida pinnata	3
✓ Silphium integrifolium	2
✓ Silphium laciniatum	2
✓ Silphium perfoliatum	2
✓ Solidago rigida	3
✓ Sporobolus heterolepis	3
✓ Vernonia fasciculata	3
✓ Zizia aurea	3

Total Number of Flats 68

Total Number Plugs 2,584

Cost - 0.83/Plug = \$2,144.72

IRVM Seed Mixes

Right of Way Seed Mixes used by Story County IRVM

Native

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

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

Cool Season

Versa Grass 50lbs/acre
Top Tim XL Timothy 25%
Endo-Graze XL Tetra Perennial Rye Grass 25%
Big Ton Smooth Brome Grass 25%
Haymate XL Orchard Grass 25%

Residential Mix

All-purpose lawn seed mix (as available)

Spring/Summer Cover Crop

Annual Rye at 10lbs/acre

Fall Cover Crop

Winter Wheat at 100lbs/acre

Planting Record

Planting Record Sheet

Story County Conservation IRVM

837 N Avenue Nevada, IA 50201

Date _____ Time _____ Personnel _____ Record # _____

Work Order Number _____ Temp. _____

Cloud Cover: clr, pt. cloudy, cloudy Wind _____ Rain _____

Planting type: roadside, other _____ (Local Native)(Non-Local Native)(NonNative)

Site Condition: Cleanout, Regrade, other _____ Soil: Wet, Dry, other _____

Seed Source and description:

Istea Mix: Forbs: Yr/amt: _____ Grasses: Yr/amt: _____

Combine Run:

Hand Harvest:

Cover Crop:

Cool Season Species:

Planting Method: Drill, Broadcast, Hand, Hydroseed, other _____

Quantities used: Mulch (amt) _____ Tack(kind/amt) _____

Location of planting: Twp. _____ Sec. _____ E911 address _____

Map of planted area:

Acres: _____

Comments:

Prescribed Fire Record



Integrated Roadside Vegetation Management
837 N Avenue • Nevada, Iowa 50201 • Phone (515) 382-7367 • Fax (515) 382-7369
www.storycountyconservation.org

ID: _____

Date: _____

Road/Area: _____ Township: _____ Section: _____

Area Type: Roadside, Natural Area, Drainage District Property DD: _____

Purpose for the Burn (e.g., brush control, stimulating natives, pre-construction):

Description of the Burn:

Burn History: _____ Remnant/ Planting History : _____

Crew Leader: _____ Crew: _____

Acres/Miles: _____ Fuel Load and Type: _____

Equipment: _____

Special Precautions: _____

Utilities/Hazards in Burn Unit: _____

Emergency Information (name, phone number):

Local Fire: _____

Local Police: _____

Neighbors: _____

Pre-burn Checklist:

- ✓ All necessary site preparations have been made.
- ✓ All smoke management specifications have been met.
- ✓ Weather forecast has been checked and current conditions have been recorded.
- ✓ All equipment has been checked.
- ✓ All personnel have been briefed.
- ✓ All required notifications have been made.

Conditions at Ignition:

Time: _____ Temperature: _____ R. Humidity: _____ Wind Speed/Direction: _____

Conditions at Completion:

Time: _____ Temperature: _____ R. Humidity: _____ Wind Speed/Direction: _____

Post Burn Comments: _____

- ✓ Notify Story County after completion

Ignition Technique:

Smoke Management Plan:

Mop up Instructions:

Contingency Plans:

Attached Reports: Aerial View Map, NOAA Hourly Weather Graph

Maps to include :

- Smoke Sensitive Area
- Utilities within burn zone
- Species of Concern (plant/animal)
- Adjacent land use/fuels
- Firebreaks already present or that will be developed (Type and Size)

Spray Record

SPRAY RECORD
Story County Conservation
Integrated Roadside Vegetation Management
License #: PO 00423 000

Date: _____ Begin Time: _____ End Time: _____ Vehicle #: _____

Target Area: ROW (Road name: _____) Parks Private Other _____

Personnel Spraying (incl. certificate #): _____

Target Species: _____

Developmental State: Rosette Bud Flower Seeded Other _____

Environmental Conditions:

Temperature: _____ Humidity: _____ Wind Speed/Direction: _____

Cloud Cover: Clear Partly Cloudy Cloudy Dominant Vegetation: _____

List of all Pesticides, Surfactants and Defoamers mixed (include full label name):

Mixture Ratio:

Total Gallons of Water: _____

Pesticide: _____ Amount: _____

Pesticide: _____ Amount: _____

Pesticide: _____ Amount: _____

Other: _____ Amount: _____

Total Mixture Applied (gallons): _____ Area treated: _____

Townships: _____

Sections: _____

Attach map of treated area.