

The Loess Hills National Scenic Byway

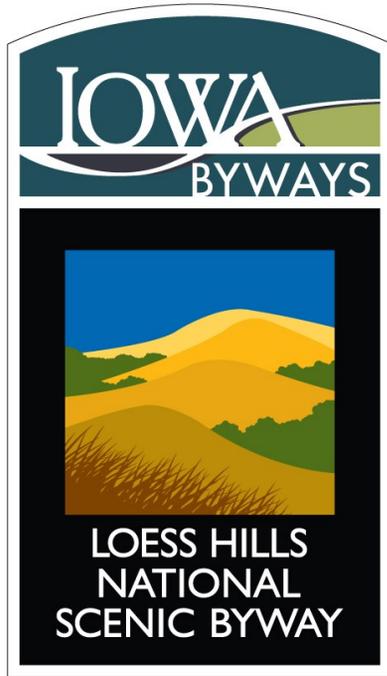


Revised 2016

Corridor Management Plan

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Iowa Byway (Designated 1998)

National Scenic Byway (Designated 2000)

www.visitloesshills.org

www.traveliowa.com/ScenicByways

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Forward

I have always been a walker. My earliest memories trace the route of my stroller as my mother pushed me hither and yon on her daily errands. Soon sidewalks became my own trails into the world, the pathways where my tricycle could proceed with a soothing click, click, click over familiar cracks or where my fleet little-girl legs could propel me forward with amazing swiftness. Sometimes they led me to the domains of friends. Sometimes to meet my father as he walked home from work. Sometimes, even in a good-sized city, they became pathways into the wild, for I knew just where the elm roots uplifted the sidewalks forming miniature mountains that exposed the raw earth below, and where clumps of wild violets and daisies were wont to triumph over haphazardly tended lawns. Looking back now, I can see that without my knowing it, walking was becoming a ritual, a meditation, every step tying me both to my immediate surroundings and to the earth as a whole.

Given those early bonds, it's no surprise that today, the mere suggestion of a walk represents to me the height of civility, luxury, even adventure. A stroll before dinner stimulates my mind and appetite. The rhythm and roll of feet meeting tarmac quiets and readies me for slipping under the sheets for a night's repose. Nothing sparks my imagination so much as a glance of a trail—any trail, be it alley or gravel roadway or meandering deer path—moving off into the distance, disappearing into the fog or over a hill into unknown worlds waiting to be explored.

No wonder that my love for the undulating waves of Loess Hills was instant and deep. Here it seemed that I could wander forever, thoughts of the everyday world dropping away as abruptly as the sides of the knife-edged ridgelines. I seem to need pathways like this, routes that penetrate the unfamiliar and tempt me to follow. I think that perhaps we all do. We all need to be taken by the hand, whether that hand be the suggestion of a

friend, a regional guidebook, or a roadside sign, and led into worlds unknown, guided by gentle suggestions until we hear the earth's beckoning and that alone pulls us forward. The Loess Hills National Scenic Byway does just that. The Byway is a network of more than 220 miles of roadways around and through the Loess Hills in seven western Iowa counties, selected and signed by volunteers in the early 1990s. The Byway leads us from the towns where the constant hum of highways dulls our sense of hearing, where fumes mute our desire to scent the wind, into lands that at first may seem separate and alien: angular hills, sharp penetrating stalks of yucca, woody brambles that catch our feet and forbid penetration, fences that forbid us to enter, bluffs too steep to mount even if they were open and free.



Loess Hills, Monona County

M. Whye

The Byway points out entranceways and tells us to slow down, to look more carefully. Soon we hear our spirits settling, sensing our surroundings, and responding. Perhaps it's the shadow and light speckling the intricate, complex landscape, or perhaps it's the knowledge that the prairie patches we still see here once formed an ancient inland ocean of flowering grass. Whatever the reason, here the earth is quick to be heard. Granted access, we use these paths through the Loess Hills to visit what soon becomes familiar but always remains unknown—for every trail, every road, no matter how often it has been tread, offers us constantly new visions of the world if only we are willing to

search out the details and merge them with the ever-flowing topography of our inner lives.

Today, we desperately need such pathways for reconnecting both to the earth and to our inner worlds. Yet to sell the Byway as just an invitation to the spirit is to sell it short. When my mother pushed me down the street in my stroller, she usually was going someplace specific: to the bakery, the grocery, the shoe repair shop on the corner. The mind might wander, but the feet pushed on toward the chosen goal. While the Byway by itself formed a viable gateway to the Hills for visitors, a plan was needed to point

out specific mechanisms for maximizing the Byway's accessibility and effectiveness.

Hence this Loess Hills National Scenic Byway *Corridor Management Plan*. Its central goal is to recommend specific tools for teaching Byway users about the unique and precious Loess Hills landform and its equally treasured native inhabitants, past and present—the prairie plants typical of areas far to the west, unusual visitors from the Southwest such as the plains spadefoot toad, earlier human inhabitants such as the Glenwood Native American culture and the Mormon settlers of Preparation Canyon.

This *Corridor Management Plan* attempts to turn the Byway from a mesh of indiscernible marked roads into an educational web of site-specific interpretive signs and regularly placed displays. Bringing the *Plan* even closer to everyday concerns, recommendations are made for the siting of additional restrooms, parking areas, and other amenities, all in an attempt to make the Byway and the Loess Hills more attractive and accessible to visitors. Direct physical contact with the land is encouraged by specific recommendations for additional walking trails and scenic overlooks. For those who prefer two wheels to four, the plan assesses the potential for biking trails. All of these amenities can serve to draw users into the Loess Hills and then to transform their vision of the Hills from an undifferentiated jumble into an easily read textbook.

The *Corridor Management Plan*, once implemented, is sure to increase the awareness of large numbers of Byway users to the unique features of the Loess Hills. By doing this, by pulling in both mind and spirit of those who follow them, the Loess Hills National Scenic Byway will serve its visitors well.

Serendipitously, the Byway simultaneously will grow in its ability to address the needs of Loess Hills residents and of the Loess Hills themselves. When I first was getting to know this area many years ago, it sometimes appeared as a world forsaken. Small towns appeared to be closed and dying. The ecosystems of the Hills, in particular the prairies besieged by invading woodlands, were crying out for management. The cries for attention are still heard, but in part because of the Byway and the attention it is bringing to the Hills, the cries are being listened to more than before. As appreciation for the unique natural and cultural features of the Loess Hills increases, so too does interest and manpower directed at conserving these features.

The *Corridor Management Plan* points out locations where improvements and intensive management are needed. Policy tools for managing use of the land are explained—model ordinances, for example, that encourage decision makers to develop zoning ordinances specific to the Loess Hills landform, and to use measures such as property tax abatement more aggressively to promote the protection of natural features. The *Corridor*



Murray Hill Scenic Overlook, Harrison County

M. Whye

Management Plan also tells residents and public officials how they can best become involved in specific efforts to preserve and manage Loess Hills ecosystems.

All of these features serve to benefit the human residents of the Loess Hills. Most simply, they too will follow the Byway and become educated in the basic features of the land they call home. This is no small feat; repeatedly, I have been approached by elderly Hills residents who claimed they always thought there was something special about the land where they lived, but only recently had anyone explained to them what exactly it was. Now that they know, the conservation strategies of the *Corridor Management Plan* will give them the tools they need to protect the land that they love. And

the tourists who come here to visit will bring along their appreciation and dollars, both of which will reinvigorate the towns and their people. The economic benefits of the Byway and related ecotourism efforts are already evident in the growing number of establishments to feed and board visitors and in the production and sales of local crafts. Implementation of this *Corridor Management Plan* will boost the region's economic development even more.

And so I applaud the Loess Hills National Scenic Byway and the over 200 volunteers who charted its course several years ago. They pointed out to all that the Loess Hills are a precious natural resource unquestionably worthy of preservation. And I applaud those who now seek to deepen and enrich the Byway's positive effects with this *Corridor Management Plan*. There is a gift to all who allow themselves to become involved. Local residents who implement this *Corridor Management Plan* and use the Byway will deepen their appreciation and knowledge of their home territory. Visitors from elsewhere who follow the Byway will stretch their minds and enrich their spirits. And the natural ecosystems of the Loess Hills stand to be better managed because they are becoming both a recognized and respected resource. Here education and appreciation, conservation, and economic benefits all work together, each complementing furthering the other in one of those rare win-win situations.

Like the sidewalks of my youth, the Loess Hills National Scenic Byway induces us all to follow new pathways of many sorts. It beguiles us and draws us ever deeper into worlds formerly unknown. Through the Byway, we are invited to leave the limited-access highways of our lives, highways that separate us from the earth that offers and nourishes life, and to let our spirits wander into lives waiting to be born.

Cornelia F. Mutel, Iowa City, Iowa
Author of **Fragile Giants: A Natural History of the Loess Hills**



Preface & Acknowledgements

The people of western Iowa get things done. For them, plans must lead to action. Initial development of the Loess Hills National Scenic Byway *Corridor Management Plan* identified items in need of attention. This revision sets forth a plan to sustain, maintain and support the original development of the Byway. This “get things done” attitude and the importance of items identified during the planning and revision process resulted in Scenic Byway stakeholders successfully working together to:

- Fabricate and place additional route identification signs needed along the Byway;
- Design and install interpretive panels at dozens of attractions in the Corridor;
- Develop areas selected for scenic overlooks;
- Complete construction of major points of interest including the Southern Loess Hills Interpretive & Welcome Center, Westfield Interpretive Center and; Gateway Portals at the north, south and middle of the Byway;
- Create and publish an improved Loess Hills National Scenic Byway Guide
- Initiate a hospitality program for communities and attractions in the Corridor;
- Expand the ability of more than two dozen local businesses and attractions to provide products and services for travelers;
- Increase by more than double the number of motor coach tours that visit the Corridor;
- Acquire and protect hundreds of acres of land and resources in the Loess Hills;
- Ensure that development activities and highway construction projects in seven counties are protective of resources in the Corridor.

The Loess Hills National Scenic Byway *Corridor Management Plan* has taken numerous work hours to complete. Accomplishing the work above may have occasionally diverted attention and resources from preparing the *Corridor Management Plan*. The time required to complete the *Plan*, however, is a good

indication of the effectiveness of the planning process. Development of the original *Corridor Management Plan* was essential to helping stakeholders identify the need for and means of undertaking the actions described above. There can be no greater evidence of the usefulness of the Loess Hills National Scenic Byway *Corridor Management Plan* than the work that has already been accomplished.

The leadership and participation of residents and public officials in western Iowa has always driven activities related to the Loess Hills National Scenic Byway. Preparation of the *Corridor Management Plan* has been no different. Members of the Scenic Byway management team and various project committees have spent hundreds of hours working with staff and advisors to complete the *Plan*. The original Management team and committee members included:

Current and past Loess Hills National Scenic Byway Council Members include:

Pat Shull, Fremont County, Past Member

Pat Hume, Fremont County

Harold Swanson, Mills County, Past Member

Kevin Mayberry, Mills County

Liz McKenna, Pottawattamie County, Past Member

Kathy Dirks, Harrison County

Jon Singelstad, Monona County, Past Member

Dennis Gann, Woodbury County, Past Member

Mark Monson, Woodbury County

Gary Tucker, Plymouth County, Past Member

Shirley Phillips, Western Iowa Tourism Region

Kathy Gourley, State Historical Society

Margaret Roetman, Iowa DOT, Past Member

Mark Kerper, IDOT, Past Member

Doug Kuhlman, Monona County

Mike Brandrup, State Forester DNR, Past Member

Dennis Michel, Iowa DNR, Past Member

Michele Walker, Western Iowa Tourism Region, Past Member

Shirley Frederiksen, Golden Hills RC&D & Byway Leader, Past Member

In addition, dozens of residents volunteered their time to participate in meetings and activities carried out that provided information essential to the preparation of the *Corridor Management Plan*. Professionals with expertise in a wide range of disciplines provided the support and assistance required to

prepare the *Corridor Management Plan*. Financial support necessary to prepare the *Corridor Management Plan* was provided by the Federal Highway Administration (FHWA), Iowa Department of Transportation (DOT), Iowa Department of Natural Resources (DNR), USDA Natural Resources Conservation Service (NRCS), the Iowa West Foundation and the seven counties through which the Loess Hills National Scenic Byway travels. Special mention should be made of the assistance provided by Troy Seifert with Iowa DOT.

The Board of Directors of Golden Hills RC&D provided essential oversight and support during preparation of the revised *Corridor Management Plan*. Board members include:

- Barry Deuel**, Chair, Shelby County
- Walter Utman**, Vice Chair, Harrison County
- Diane Forristall**, Treasurer, Pottawattamie County
- Jon Herzberg**, Page County
- Ron Kohn** Mills County
- Sheryl Sanders**, Fremont County
- Mark Petersen**, Montgomery County
- Duane McFadden**, Cass County
- Lynn Grobe**, Pottawattamie County

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The writing and photography of Cornelia Mutel, Don Poggensee, Ken West, and Mike Whye have achieved greater awareness of and appreciation for the Loess Hills. The influence of their work has helped to preserve the many special resources and features of this unique region of the world. Their contributions to the *Corridor Management Plan* display their deep concern for the future of the Loess Hills. The power of their words and photographs elevates to the highest level the potential of this *Plan* to ensure the sound management of the Loess Hills National Scenic Byway Corridor.



Ken West, Sweetlight Gallery

Since 1989, many groups, organizations and individuals of western Iowa have participated in planning and developing the Loess Hills National Scenic Byway. Maintaining the “living document” purpose of this *Corridor Management Plan* has been an essential part of that process. This *Plan* identifies the need for, and means of, undertaking actions to enhance and preserve the unique intrinsic qualities that make the Loess Hills National Scenic Byway an attraction for hundreds of thousands of visitors each year from all over the world.

Corridor Management Plan Summary

The Loess Hills National Scenic Byway weaves through a landform of windblown silt deposits that make up the Loess Hills. The Loess Hills are one of North America's gems, possessing natural features only found in one other place on this earth, China (Mutel 4, 1989). These deep loess deposits form a north-south band approximately 200 miles along the eastern edge of the Missouri River valley. The Loess Hills are located in the following seven western Iowa counties: Plymouth, Woodbury, Monona, Harrison, Pottawattamie, Mills and Fremont.

The Loess Hills National Scenic Byway is a connected system of over 220 miles of state highways and county roads. The initial routes were located in Harrison and Monona Counties and were later extended into Pottawattamie, Mills and Fremont Counties. By 1992 the Byway's final routes were selected in Woodbury and Plymouth Counties. Route identification signs were fabricated and installed and a Loess Hills National Scenic Byway map and brochure was published and distributed by 1993.

Development of the first *Corridor Management Plan* began in 1993 with special studies about enhancing and preserving the region's resources, developing tourism, providing adequate amenities, and economic development. These studies are the foundation for development of the revised *Corridor Management Plan*.

The *Corridor Management Plan* consists of the following five sections:

- Introducing the Plan
- Understanding the Resources
- Understanding Tourism
- Corridor Development Actions
- References

The first section, "Introducing the Plan," discusses the processes used for planning and developing the Loess Hills National Scenic Byway. It also discusses the role of Byway stakeholders in implementing the *Corridor Management Plan*.

The second section, "Understanding the Resources," identifies the intrinsic qualities of the Loess Hills, or special natural and human-made resources in the region.

The third section, "Understanding Tourism," examines the economic impact and market potential of tourism in the Loess Hills National Scenic Byway Corridor.

The Plan's fourth section, "Corridor Development Actions," contains a series of recommended actions for the ongoing management and protection of the Scenic Byway Corridor's intrinsic qualities. A matrix presented in this section suggests the "Leaders" and "Participants" responsible for completing these actions along with levels of priority. Leaders and Participants are the stakeholders of the Loess Hills National Scenic Byway. The final section, "References," lists the references used in developing the *Plan*.

This Loess Hills National Scenic Byway *Corridor Management Plan* provides guidance for the development, management and protection of an American Treasure -unique in the world.



Introducing the Plan

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Iowa's Loess Hills - "An American Treasure"

When approaching the western border of Iowa, travelers are often intrigued by the view of a most extraordinary landscape of prairie and forest covered steep bluffs, narrow ridges and rolling hills. This unique landscape is known as Iowa's Loess Hills. The Loess Hills are one of North America's gems, possessing natural features rarely duplicated elsewhere. In only one other part of the world, the Yellow River Valley of China, has wind-deposited silt, or loess (pronounced "luss") accumulated to such depths as to form the landscape so spectacularly (Mutel 4, 1989).

The archaeological resources of the region are also of notable significance. Once home to great North American cultures such as the Mill Creek and Glenwood peoples, the Loess Hills are now scattered with earth lodge sites and ancient artifacts and tools. The earth lodges are of such significance that they have been compared to the cliff dwellings of the ancestral Pueblo Indians of the southwest.

The loess deposits that make up the Loess Hills were initially left by glacial melt waters onto the floodplain of the Missouri River and then blown upward by strong wind and re-deposited along the eastern side of the river valley. The steep, sharply ridged topography of the Loess Hills is the product of tens of thousands of years of deposition and erosion of this wind-blown silt. The rugged landscape and strong local contrasts in weather and soil conditions provide refuge for a number of rare plants and animals, many of which can be found in Iowa only in the Loess Hills (Mutel 4-5, 1989).

Iowa's Loess Hills form a north-south band approximately 200 miles in length along the eastern edge of the Missouri River as shown on the map at the end of this chapter. The Loess Hills are best developed in a strip between 3 and 10 miles wide where the loess deposits reach up to 200 feet in depth (Mutel 8, 1989). The Loess Hills are located in seven Iowa counties: Plymouth, Woodbury, Monona, Harrison, Pottawattamie, Mills and Fremont.

Cherished today for their natural beauty and far reaching views of the Missouri River Valley, hundreds of years ago, Native American cultures called the Loess Hills home. Known as the Glenwood and Mill Creek cultures, these members of the larger Central Plains Tradition resided on the ridges and terraces of the Loess Hills from approximately A.D. 1000 to 1300. Contemporaries of the Pueblo Indians found in southwest United States, the

Central Plains Indians also formed great societies and lived in large villages near the Missouri River.



M. Whye

The Glenwood culture is technically referred to as the Nebraska Phase of the Central Plains Tradition. These people resided in the southern portion of the Loess Hills near the confluence of the Platte and Missouri Rivers, from approximately A.D. 1050 to 1300. It is most likely that the Glenwood people farmed the terraces of the Loess Hills, though they also hunted animals like bison, elk and deer.

The Mill Creek culture, believed to be descended from the Great Oasis Culture, resided further north in the Loess Hills near Sioux City from about A.D. 1100 to 1300. Much like the Glenwood Indians, Mill Creek Indians farmed and hunted for food. Both the Glenwood and Mill Creek peoples constructed earth lodges. The earth lodges were usually square to rectangular in shape with rounded corners. Most lodges had four central posts, a row of wall posts, a central hearth and a long, narrow entrance that faced south. The entire structure would then be plastered with a mixture of

mud and grass, also known as “wattle and daub.” These earth lodges are to the Glenwood and Mill Creek cultures what the cliff dwellings were to the Pueblo cultures in the southwest.

The archaeological significance of the Loess Hills was a key determinate in authorizing the route as a National Scenic Byway (2000) as well as designation as an All-American Road (2009). The archaeological intrinsic qualities of the Loess Hills region speak to the human population movements and change that set into

motion a period of deep history starting with the domestication of the landscape by the first farmers, the emergence of the Plains village tribes, their eventual displacement and later, significant influence on national policy and interactions between nations, tribal governments and native peoples. (Iowa Office of the State Archaeologist; All-American Road Nomination 2009)



Glenwood culture artifacts from Mills County. Upper row: ceramic pipe, engraved shell pendant, ceramic jar and water bottle. Lower left and center: ceramic animal effigy fragments. Lower right: effigy pipe.

Vision for the Scenic Byway

The Loess Hills National Scenic Byway represents the willingness and ability of communities, public agencies, and private organizations to work together on economic development, cultural and conservation issues. In establishing the Loess Hills National Scenic Byway, local residents and representatives of these agencies and organizations have pursued a vision that:

- Focuses on preserving and enhancing the Loess Hills resources;
- Encourages economic growth through increased tourism and recreation;
- Provides opportunities for the public - both visitors and residents - to see and enjoy the people and the natural beauty of the Loess Hills;
- Offers a “user friendly” system of roads that allow visitors to experience a nationally significant landscape;
- Identifies the opportunities and needs for education about the resources of the Loess Hills;
- Recognizes the need for increased maintenance; more partnerships between organizations, agencies and groups; additional land use regulation; and preservation programs; and
- Recognizes the benefits of achieving state and federal designation as a scenic byway.

The Loess Hills National Scenic Byway is a connected system of state highways and county roads through the heart of Iowa’s Loess Hills. The Byway’s main route consists of 220 miles of paved roads. Sixteen excursion routes, all loops connected to the main route, are also part of the Loess Hills National Scenic Byway.

The Scenic Byway is easily accessible from Interstates 29, 680 and 80, providing travelers with numerous points of entry and exit. Route identification signs have been installed along the Byway network to aid in guiding visitors as they travel the route.

The Loess Hills National Scenic Byway travels through 16 small rural towns and two larger metropolitan areas; Council Bluffs and Sioux City. The towns and cities on the Byway provide travelers with necessary visitor facilities and services. Along its entire length, the Scenic Byway offers travelers the opportunity to enjoy breathtaking views, dozens of parks, recreation and wildlife areas, a variety of cultural events, information and attractions, and numerous sites of national and local historic significance.



Strategic planning for the Loess Hills National Scenic Byway

Scenic Byway Development

The Loess Hills National Scenic Byway began in 1989 as a grassroots effort by dedicated citizens in cooperation with Golden Hills Resource Conservation and Development, Inc. (RC&D) and the Western Iowa Tourism Region. Establishment of the Loess Hills Scenic Byway took place between 1989 and 1993. Initial routes selected for the Byway were located in Harrison and Monona Counties. In 1991 Byway routes were extended into Pottawattamie, Mills and Fremont Counties. By 1992 the Byway’s final routes were selected in Woodbury and Plymouth Counties. Blue and white route identification signs were fabricated and installed and a Loess Hills Scenic Byway map was published and distributed by 1993. The Byway became an Iowa Scenic Byway on July 8, 1998 and on June 15, 2000 received the National Scenic Byway designation.

The Byway is governed by a council of representatives from the seven Byway counties, the State Historical Society, Iowa Department of Natural Resources, Golden Hills RC&D, and the Western Iowa Tourism Region. The selection, signing and promotion of routes that make up the Scenic Byway was accomplished through the active participation of local residents, elected

officials and representatives of public agencies. required in-depth analysis of characteristics of the roadway Corridor, including;

- Public preference for scenic views;
- Location and availability of attractions;
- Visitor facilities; and
- Safety issues.

Public Participation

Public involvement was encouraged at every phase of the Scenic Byway's development and continues through its implementation and operation stages. Local leaders in economic development, tourism, and business, together with county supervisors, engineers and conservation board directors engage with members of the Byway Council and the Byway coordinator to assess and support initiatives for the region. In the initial formation of the Byway, these committees were charged with researching, identifying, evaluating and selecting routes for the Loess Hills National Scenic Byway. Committee members were assisted by the Iowa Economic Development Authority (IEDA), Iowa Department of Natural Resources (DNR), Iowa State University Extension (ISU) and the Natural Resource Conservation Service (NRCS).

Roadway Characteristics

The 220 miles of the Scenic Byway's main route, or spine, consists of state and county paved roads. Drive time, without stops, for the entire main route is just under 6 hours. Selection of paved roads for the spine allowed use of the Scenic Byway by travelers of all driving abilities and vehicles types. The Scenic Byway's 16 excursion routes, or loops, vary in length from 3 to 19 miles with drive times ranging from 15 to 40 minutes. All of the excursion routes begin and end on the main route, include state and county roads, and have paved and gravel surfaces. Routes for the Byway excursion loops were selected to provide additional opportunities for travelers to experience the Loess Hills.

Attractions and Visitor Facilities

Scenic Byway committee members completed a comprehensive inventory of public attractions (historic sites, museums, parks, special events) and visitor services (lodging, restaurants, service stations, public restrooms). Inventory results were used to help determine the suitability of potential Byway routes to accommodate the needs of travelers.

Landscape Assessment

Landscape assessment techniques were used to determine and evaluate the varied visual resources of the Scenic Byway Corridor. Landscape assessment indicators, a technical means used to categorize and quantify the Byway's visual resources, included:

- Character--a measure of how well the landscape and its components work and belong together;
- Structure--a measure of the distance one can see in a view at any one time; and
- Information--a measure of the ability of the landscape to engage the viewer.

In combination, these indicators were used to identify qualities in the landscapes of the Scenic Byway that people found pleasing, attractive, or significant even though they may not, in every instance, be "picture-postcard" views.



Dorothy Pecaut Nature Center, Woodbury County

M. Whye

Public Preference Testing

Photographs were taken of scenes in the Loess Hills that illustrated varying combinations and levels of landscape character, structure, and information. More than 450 residents and visitors participated in the analysis of visual resources along the Scenic Byway. Participants viewed the images and recorded those that they liked and disliked. Results of the preference testing gave Byway planners a clear indication of the types of views that most people were interested in seeing in the Loess Hills.

Scenic Byway committee members also collected data about the landscape assessment indicators on candidate Byway routes. Working in teams, committee members recorded their ratings of the different views along potential Byway routes. The teams also identified “good” and “bad” views based on their own individual preferences as well as driving conditions on the candidate routes.

This work provided a comparison between the results of public preference testing and the actual views present along potential Byway routes. By recording driving conditions, the teams also provided planners with input pertaining to driver expectations and safety.

Safety Issues

State and county highway engineers helped to establish safety standards for the review and selection of routes for the Loess Hills National Scenic Byway. The engineers identified roads to be excluded from consideration due to safety related issues. These roads generally had poor vertical and horizontal alignments, high traffic accident frequencies, numerous railroad crossings and bridges with weight and height restrictions that prohibit use by motor coaches or heavy use by commuters. On the advice of the Iowa Attorney General’s office, cautionary driving information was included as part of the Scenic Byway map and brochure.

Final Route Selection

The results of preference testing for scenic resources, location of public attractions and visitor services, and roadway safety considerations were displayed on a series of map overlays together with candidate Byway routes. Scenic Byway committee members worked with representatives of public agencies to review the information assembled and select final routes for the Byway.

Maps

Loess Hills Landform Region

Loess Hills National Scenic Byway Routes

Loess Hills National Scenic Byway Route Ownership

Loess Hills National Scenic Byway Route Pavement Types



Loess Hills Landform Region State of Iowa

Loess Hills Scenic Byway Corridor Management Plan

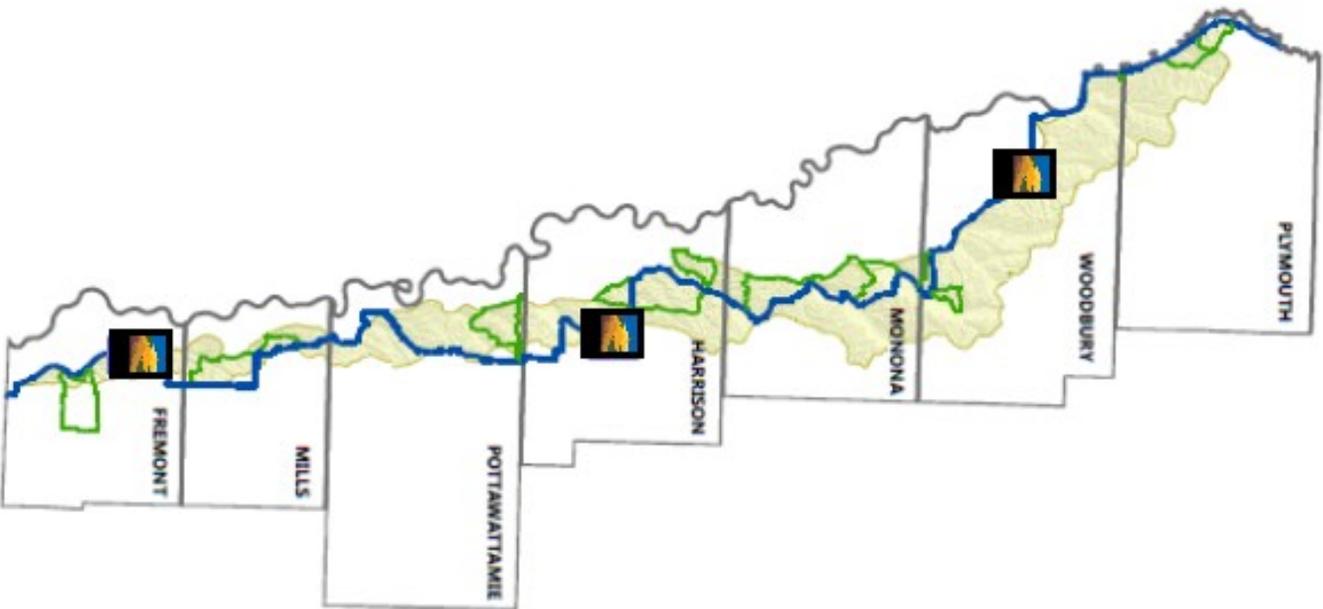
Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattomie County GIS Department





Loess Hills Scenic Byway Routes Western Iowa Loess Hills

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



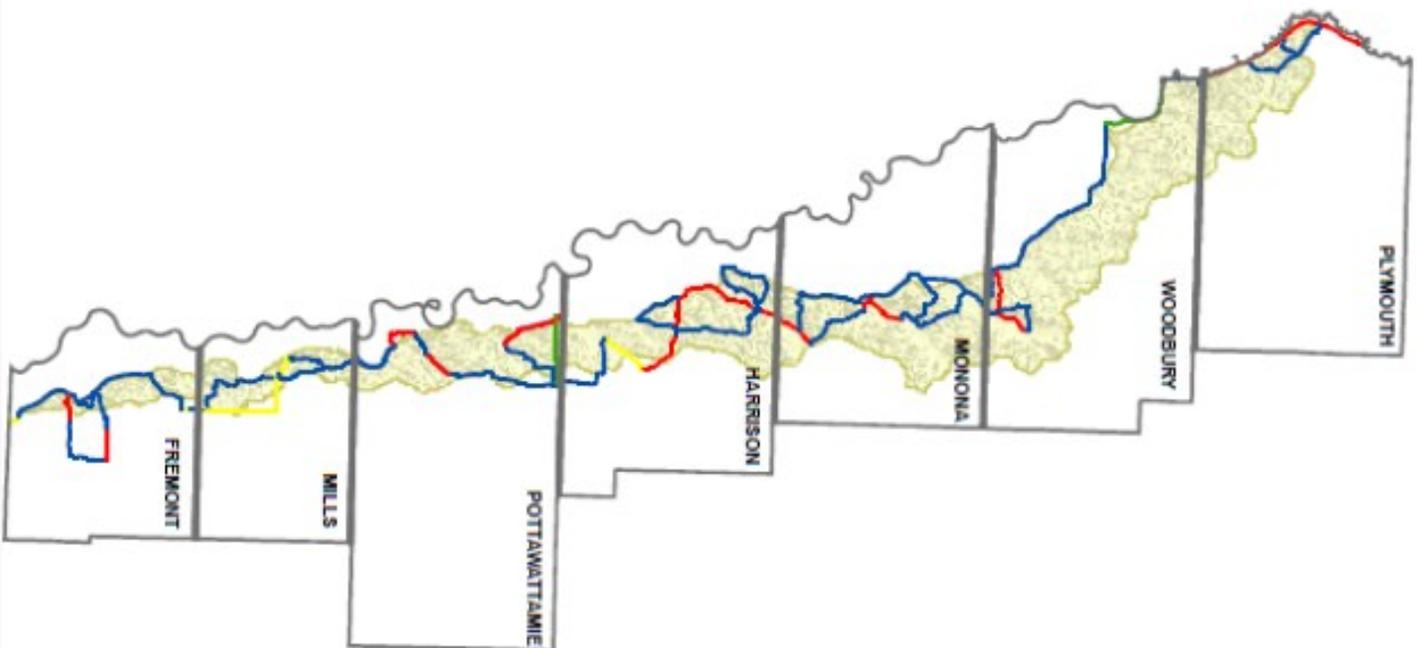
Loess Hills Scenic Byway Spine
Loess Hills Scenic Byway Loop
Loess Hills Landform





Route Ownership Western Iowa Loess Hills

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

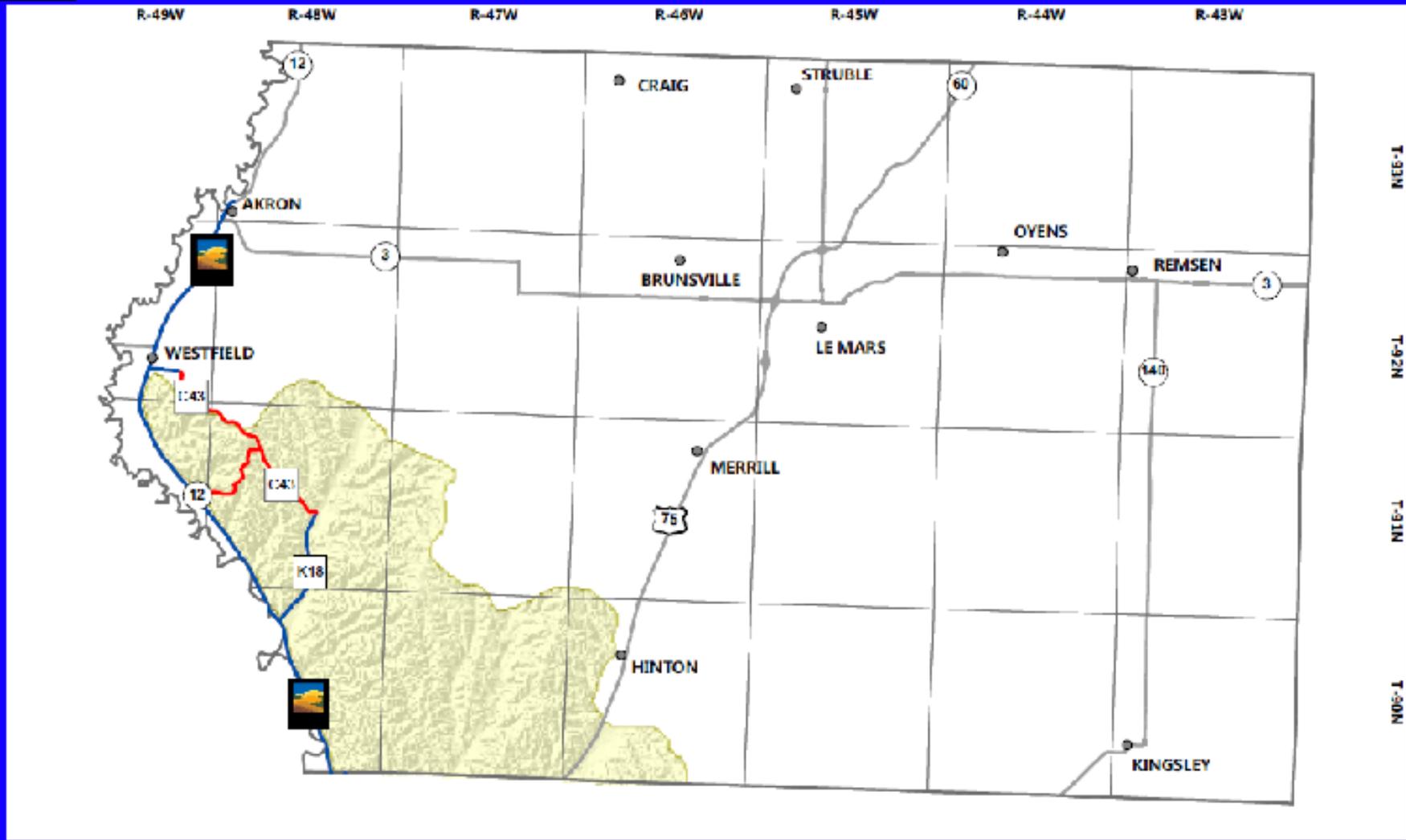




Route Pavement Types Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Gravel	Township Line
Paved	Loess Hills Landform Region
Highways	

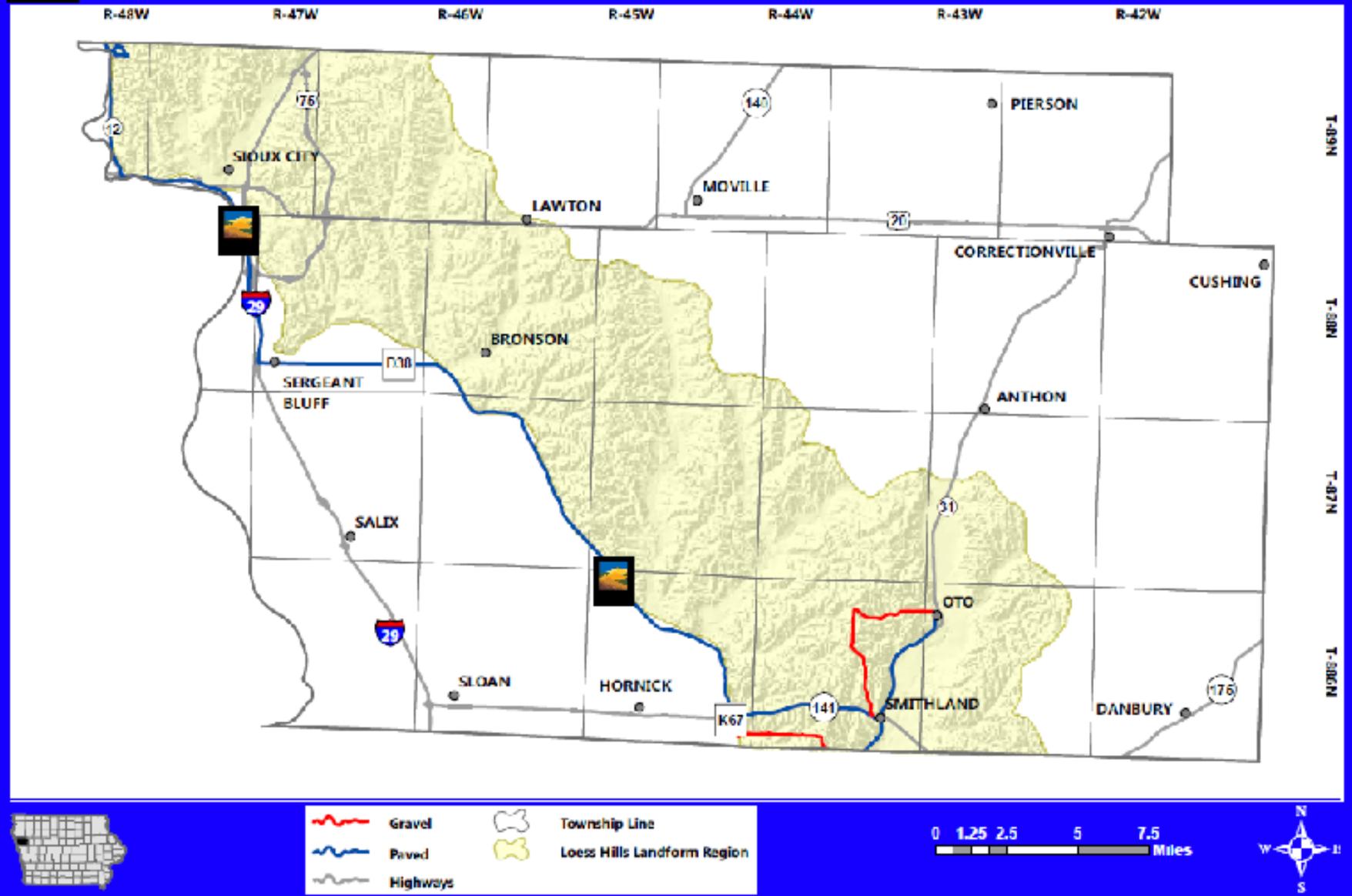




Route Pavement Types Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

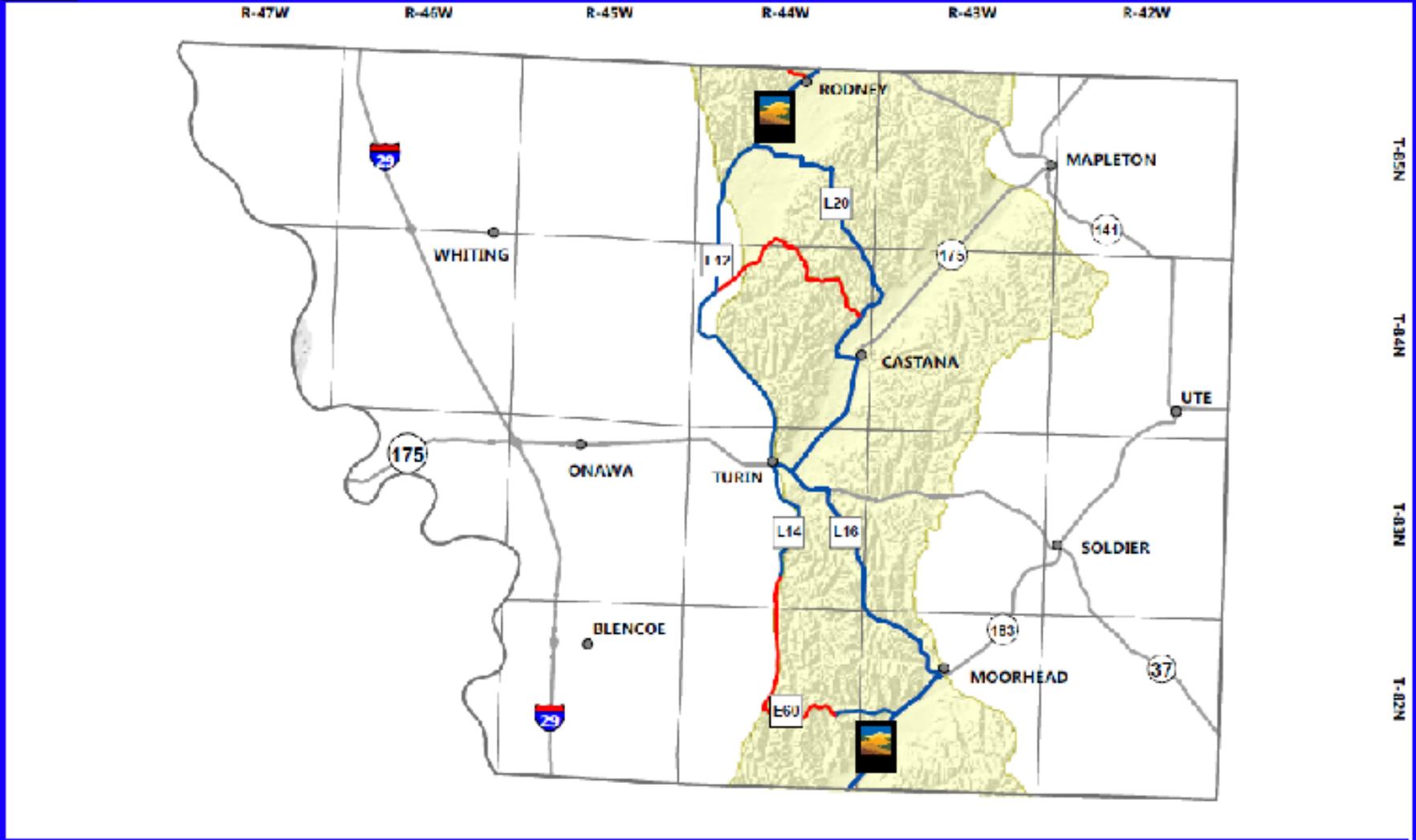




Route Pavement Types Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



	Gravel		Township Line
	Paved		Loess Hills Landform Region
	Highways		

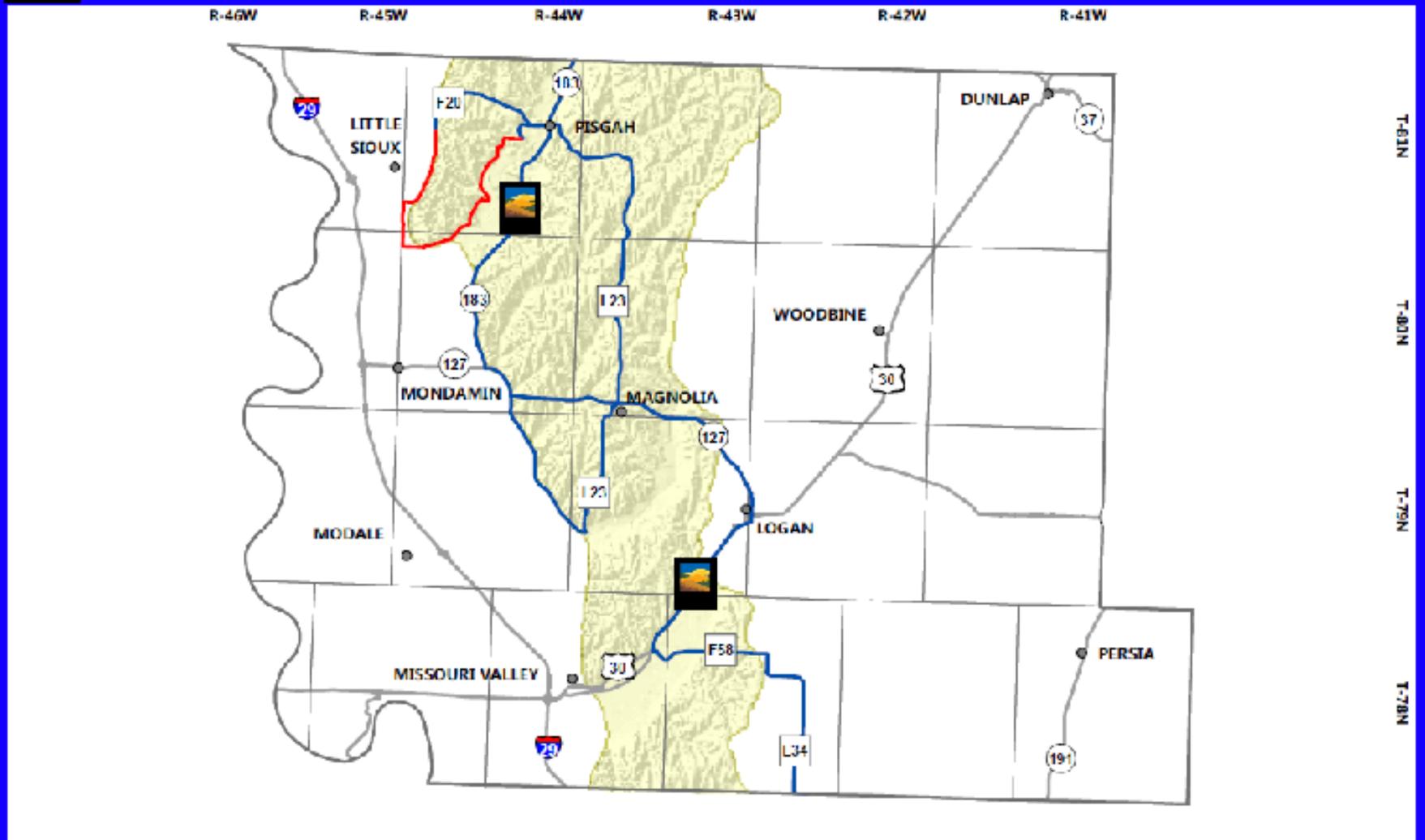




Route Pavement Types Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



	Gravel		Township Line
	Paved		Loess Hills Landform Region
	Highways		

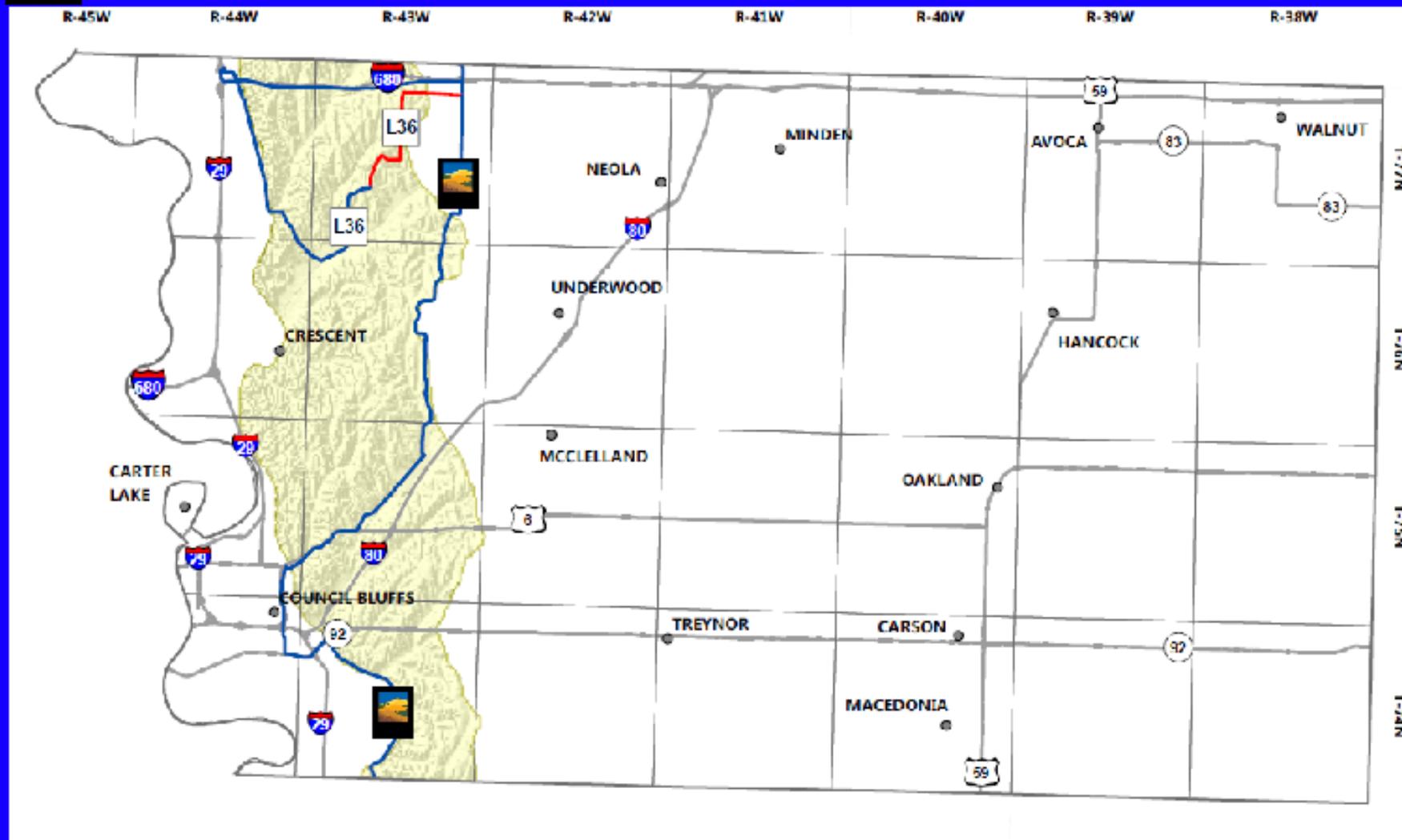




Route Pavement Types Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

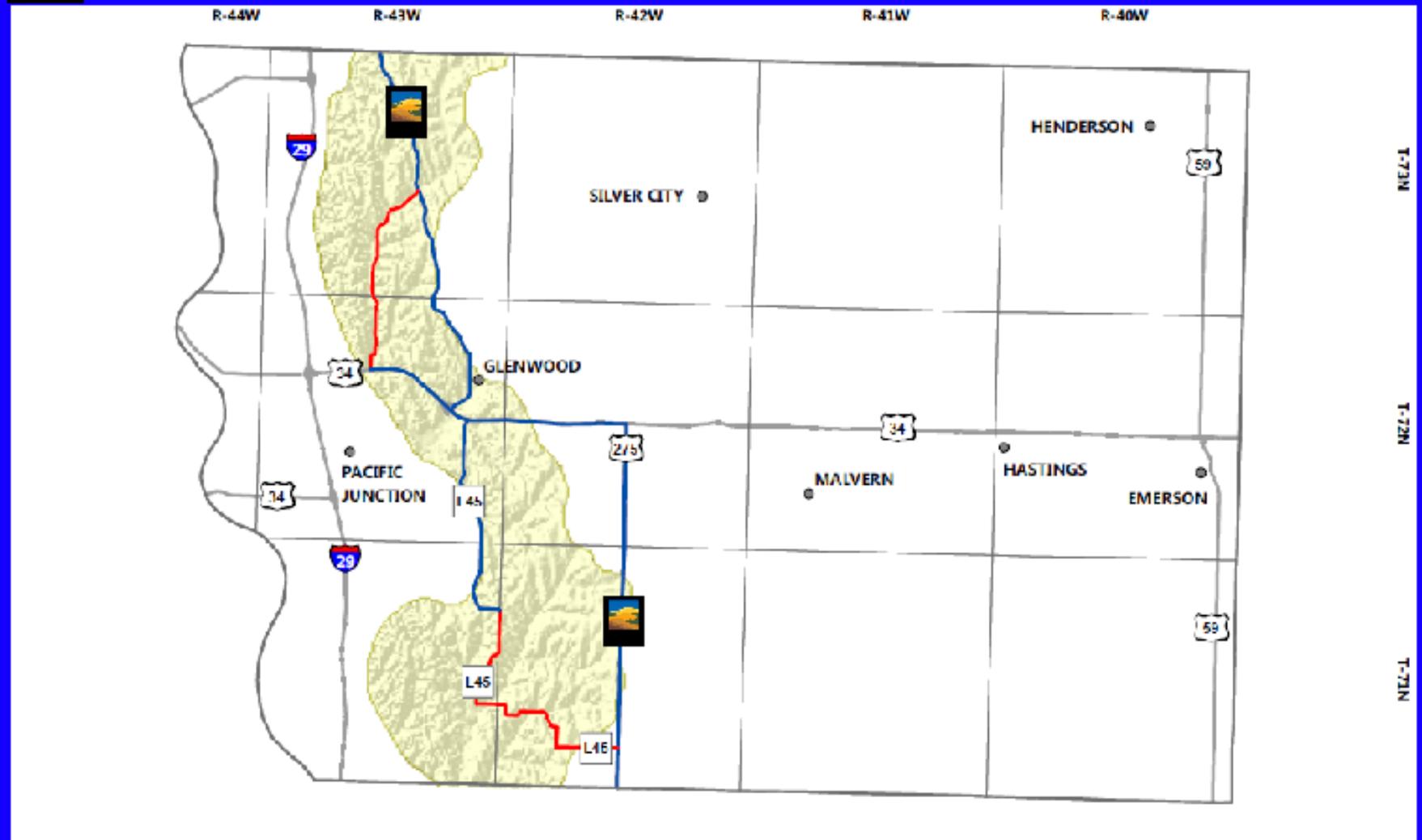




Route Pavement Types Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



	Gravel		Township Line
	Paved		Loess Hills Landform Region
	Highways		

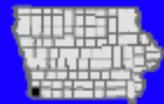
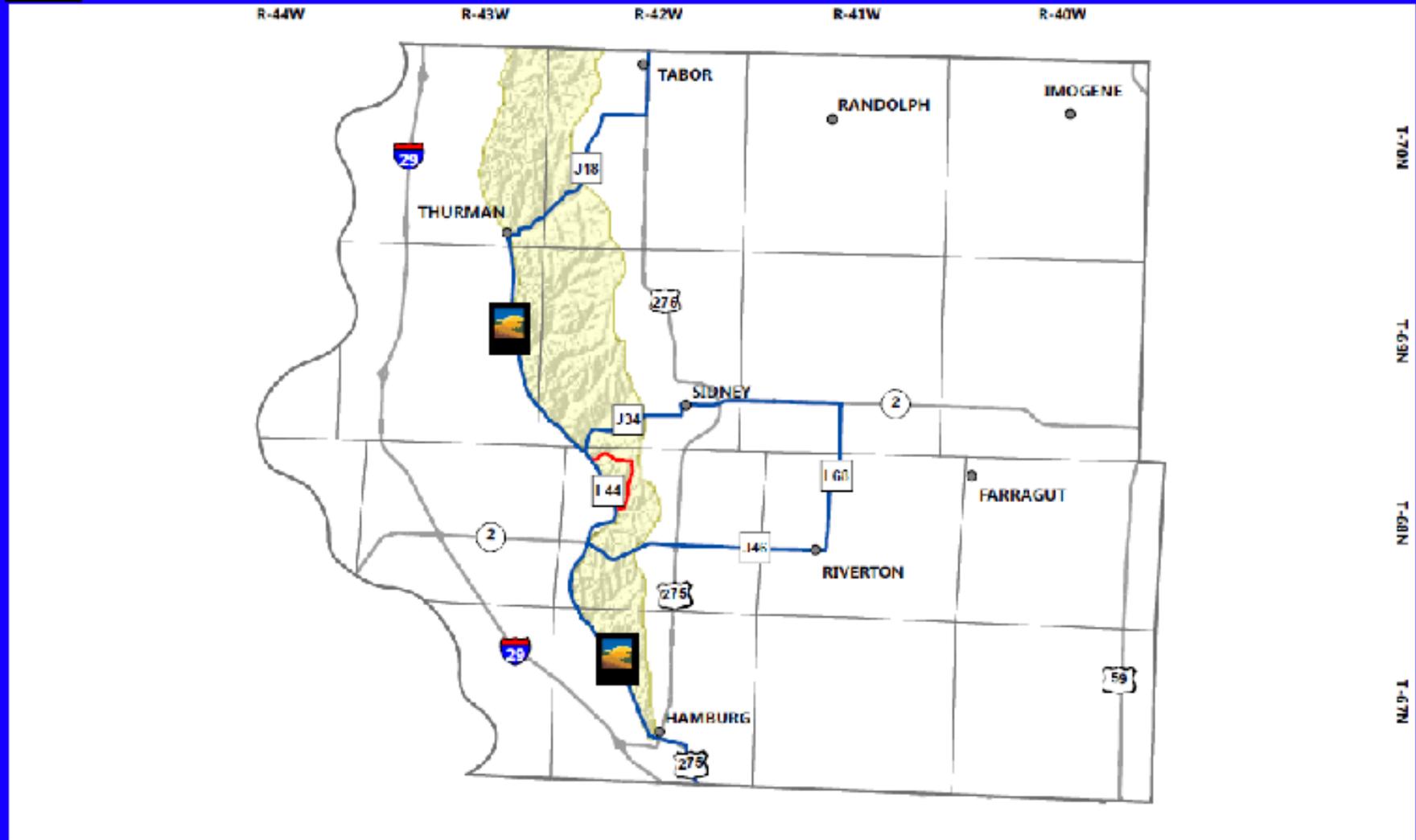




Route Pavement Types Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



	Gravel		Township Line
	Paved		Loess Hills Landform Region
	Highways		



Iowa's Byways

The Iowa Byways program was established through Iowa Code Chapter 306D to identify, protect and enhance roadways in Iowa which exemplify the state's scenic, natural, cultural and historic resources. There was early recognition of both preserving Iowa's inherent resources and providing tourism economic benefits to Iowa communities by drawing travelers to visit byways featuring some of Iowa's remarkable resources. These resources are now defined as the six intrinsic byway values of: archaeological, cultural, historic, natural, recreational, and scenic qualities.

The state offers numerous regions through which people can drive for the pleasure of viewing unusually scenic and interesting landscapes; however, routes to and through these areas had not been adequately identified for Iowans and state visitors prior to establishment of the Iowa Byways Program. Among those things that attract motorists to the state's landscape are agricultural lands, forests, river basins, distinctive landforms, interesting architecture, metropolitan areas, small rural towns, and historic sites. The landscape qualities of unusually scenic routes throughout the state have not been protected from visual and resource deterioration particularly along routes which pass near the state's nationally significant areas such as the bluffs of the Mississippi and Missouri rivers, the Amana colonies, the Herbert Hoover national historic site, federal reservoirs, communities surrounding the state's natural lakes, the Des Moines river greenbelt, the Great River Road, and many others. A principal goal of economic development in this state is to increase the influence which travel and tourism have on the state's economic expansion.



Current Iowa Byways®

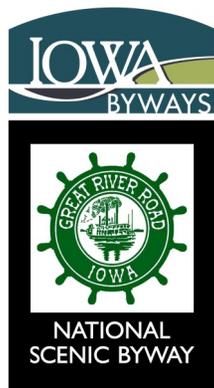
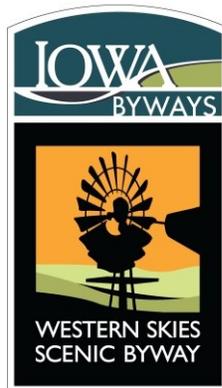
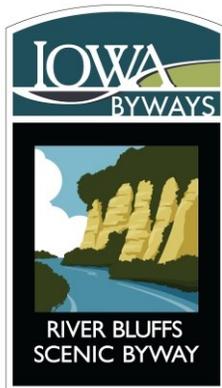
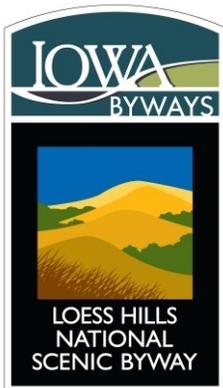
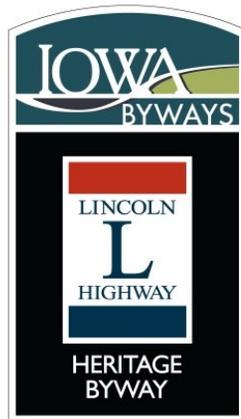
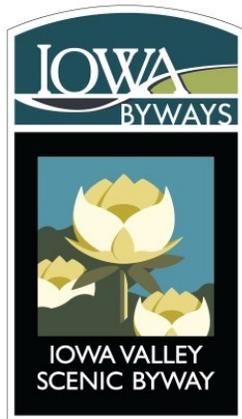
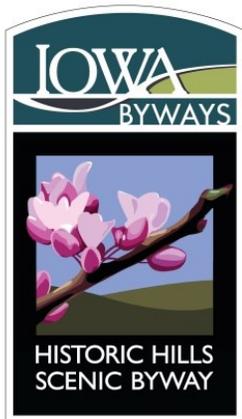
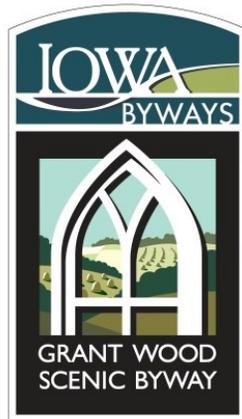
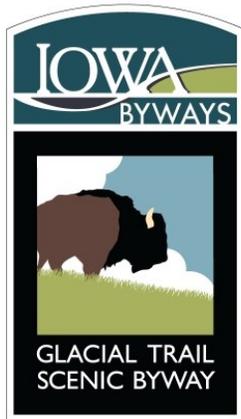
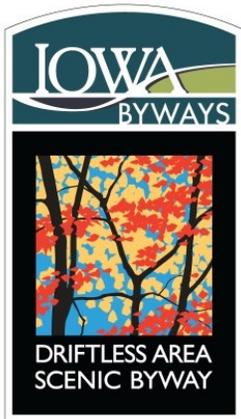
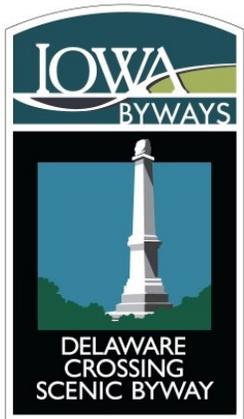
Iowa's two national byways and twelve state byways offer unique varieties of scenic features, and more for travelers to see and do. These byways include:

- Loess Hills National Scenic Byway
- Great River Road National Scenic Byway
- Lincoln Highway Heritage Byway
- Covered Bridges Scenic Byway*
- Delaware Crossing Scenic Byway
- Driftless Area Scenic Byway
- Glacial Trail Scenic Byway
- Grant Wood Scenic Byway
- Historic Hills Scenic Byway
- Iowa Valley Scenic Byway
- Jefferson Highway Scenic Byway*
- River Bluffs Scenic Byway
- Western Skies Scenic Byway
- White Pole Road Scenic Byway*

**Under development and designated in 2016*

Designated Iowa Byways® share the unique Iowa Byways brand. The individual logos were collaboratively created at the same time to extend the brand with graphic images representing each byway's most notable characteristics. Iowa DOT continues to support the overall brand and market presence of the designated byways through:

- Logo registration with the Iowa Secretary of State Brand guidelines and management of approved uses
- Iowa Byways Official Travel Guide
- www.traveliowa.com/ScenicByways
- Graphic representation on the Iowa Transportation Map
- Cooperation with Travel Iowa
- Coordination of the Travel Iowa Guide Iowa Byways pages
- Byways collection graphics and design assistance for promoting all Iowa Byways



IOWA BYWAYS

DISCOVER YOUR ADVENTURE on Iowa's two national scenic byways and nine state scenic or heritage byways.

Visit www.iowabyways.org to research events and attractions, locate traveler services, or develop a trip itinerary that includes maps to destinations and other byway information that you can print or view electronically while you travel.

You can also send electronic postcards, save favorites from your most memorable trips and include travel notes to record your trip's details.

IOWA'S NATIONAL BYWAYS

- LOESS HILLS SCENIC BYWAY
- GREAT RIVER ROAD SCENIC BYWAY

IOWA'S STATE BYWAYS

- DELAWARE CROSSING SCENIC BYWAY
- DRIFTLESS AREA SCENIC BYWAY
- GLACIAL TRAIL SCENIC BYWAY
- GRANT WOOD SCENIC BYWAY
- HISTORIC HILLS SCENIC BYWAY
- IOWA VALLEY SCENIC BYWAY
- LINCOLN HIGHWAY HERITAGE BYWAY
- RIVER BLUFFS SCENIC BYWAY
- WESTERN SKIES SCENIC BYWAY



www.iowabyways.org



What are Scenic Byways?

Scenic Byways are special roads that often take travelers “off the beaten path” and provide access to sights and experiences they might otherwise miss. Scenic byways offer travelers an alternative route to beautiful scenery, cultural and historical resources, and recreational activities. They may be spectacular destinations or local routes long admired by a community (Scenic America 1, 1995).

Scenic byways also:

- Promote interest in the cultural resources and natural beauty of an area;
- Interpret the special qualities of an area that increase appreciation for, and commitment to, their protection;
- Attract visitors who bring additional income and economic activity to the area;
- Provide an opportunity for growth management by encouraging appropriate development;
- Provide travelers with an enjoyable and relaxing experience;
- Guide visitors to sites not on principal highways offering a means to draw tourists to all areas of a region;
- Contribute to regional greenways, heritage areas, and trail development efforts;
- Preserve important community-valued characteristics; and
- Create ties within and between communities due to sharing a common vision (Scenic America 1, 1995).

Scenic byways pass through corridors that reflect the special qualities of a region. These corridors consist of the area and features influenced by, and that have an impact on, the scenic byway. Scenic byway corridors include the roadway itself, right-of-way, areas visible from the roadway and communities and attractions in the immediate vicinity of the roadway. Corridors also include roads, communities, attractions and landscapes that, although not directly associated with the roadway, are integral to the scenic byway.

Corridor Management Plans

A corridor management plan is a locally developed and supported strategy to balance the conservation of a scenic byway corridor’s special qualities with the use and enjoyment of those same resources. It allows communities to consider all options about how they want to use a byway corridor, including conservation, enhancement, economic development, and tourism (Scenic America 1, 1995).



According to the Federal Highway Administration’s National Scenic Byways Program:

A corridor management plan, developed with community involvement, must be prepared for the scenic byway corridor proposed for national designation. It should provide for the conservation and enhancement of the byway’s intrinsic qualities as well as the promotion of tourism and economic development. The plan should provide an effective management strategy to balance these concerns while providing for the users’ enjoyment of the byway (U.S. Government Federal Register 26759, 1995).

Corridor management plans help direct the activities along a scenic byway in order to protect, enhance and develop the resources of the byway and its corridor. Community groups, agencies and others responsible for the byway can use the corridor management plan to coordinate their actions and increase the efficiency of resources expended to manage the byway and corridor. Active public involvement in the management decision-making process increases community pride in, appreciation for, and support of the qualities and features of the scenic byway and its corridor.

Loess Hills National Scenic Byway Corridor Management Plan

The Loess Hills National Scenic Byway *Corridor Management Plan* meets the objectives listed above including those of the Federal Highway Administration. The *Corridor Management Plan* for the Loess Hills National Scenic Byway is a collection of strategies, recommendations and tools developed primarily by the Byway's principal stakeholders for their use in protecting, enhancing, developing and promoting the resources of the Scenic Byway and its Corridor.

More specifically, the Loess Hills National Scenic Byway *Corridor Management Plan*:

- Provides an assessment of the Scenic Byway Corridor's most significant resources;
- Identifies the need for additional public amenities as well as improvements to existing facilities,
- Develops standards and recommendations for signs, interpretive sites and bicycle routes associated with the Scenic Byway;
- Presents model land use tools for the Scenic Byway Corridor; and
- Recommends actions to develop the tourism potential of the Loess Hills and Scenic Byway.

Similar to establishing the Loess Hills National Scenic Byway itself, the *Corridor Management Plan* was developed with the participation and support of local communities, organizations and agencies directly responsible for managing the resources of the Scenic Byway and its Corridor. Representatives of these entities comprise the Loess Hills National Scenic Byway and the Loess Hills National Scenic Byway Council. Team members worked with hundreds of residents and visitors to complete the *Plan*. Professionals with numerous public agencies and private organizations assisted the Scenic Byway Management Team in preparing the *Corridor Management Plan*.

The Iowa Department of Transportation has supported ongoing coordination and sustainability of Iowa's Byways through nine years of Iowa Byway Sustainability funding, which is leveraged and matched at the local level to implement corridor management plans, collaborate with all statewide Byways and promote the routes. This support has allowed the cultivation of diverse stakeholders to sustain and expand goals identified through this plan.

Stakeholders of the *Corridor Management Plan*

The authors of this *Corridor Management Plan* view that virtually anyone with an interest in the future of the Loess Hills and its Scenic Byway will have a stake --vested interest--at one level or another in this *Plan*. For the general purpose of distinguishing levels of interest, three broad categories of stakeholders are suggested:

- Primary Stakeholders
- Supporting Stakeholders
- Constituent Stakeholders

Primary Stakeholders

The Primary Stakeholders of the *Corridor Management Plan* will be those organizations which are, or would be, directly responsible for protecting, enhancing, developing, and promoting the resources of the Loess Hills National Scenic Byway Corridor. These Primary Stakeholders are ultimately responsible for implementing the strategies, recommendations and tools set forth in this *Corridor Management Plan*. Primary Stakeholders include officials and staff of the following:

- Local governments, public agencies, boards and commissions of the seven counties and 18 cities and towns through which the Loess Hills National Scenic Byway passes;
- Western Iowa Tourism Region;
- Council Bluffs Convention and Visitor Bureau;
- Sioux City Convention and Visitor Bureau;
- Golden Hills RC&D;
- Iowa Department of Transportation;
- Iowa Economic Development Authority;
- Iowa Department of Natural Resources; and
- Iowa Department of Cultural Affairs
- Loess Hills Alliance

Supporting Stakeholders

Loess Hills National Scenic Byway Supporting Stakeholders are entities with activities and programs that can directly and indirectly support the actions of the Primary Stakeholders defined above. Important Supporting Stakeholders of the Scenic Byway at the local, regional, state and national levels include, but are not limited to:

LOCAL LEVEL

- Chambers of commerce
- Economic development organizations
- Historical societies and preservation commissions
- Community groups and civic organizations
- County Tourism Boards
- County Conservation Boards

REGIONAL LEVEL

- Metropolitan Area Planning Association
- Siouland Interstate Metropolitan Planning Council
- Regional Transportation Planning Affiliation 18
- Regional Transportation Planning Affiliation 13
- Regional Transportation Planning Affiliation 4
- Soil and Water Conservation Districts
- Missouri Iowa Nebraska Kansas Corridor
- Loess Hills Alliance
- Loess Hills Development and Conservation Authority

STATE LEVEL

- Iowa Department of Transportation
- Iowa Department of Natural Resources
- Travel Iowa
- Iowa Economic Development Authority
- State Historical Society of Iowa
- Iowa Chapter of The Nature Conservancy
- Iowa Prairie Network
- Iowa Natural Heritage Foundation

NATIONAL

- Federal Highway Administration
- USDA—Natural Resources Conservation Service
- National Park Service
- Environmental Protection Agency
- U.S. Fish and Wildlife Service
- U.S. Forest Service

CONSTITUENT STAKEHOLDERS

In addition to the Primary and Supporting stakeholders, there are those people, Constituent Stakeholders, who support the efforts of the Primary and Supporting Stakeholders by participating in volunteer activities, land management programs, marketing and business planning and other activities that focus on and support the preservation, conservation and promotion of the Loess Hills National Scenic Byway Corridor. The Scenic Byway's Constituent Stakeholders are:

- Land owners and managers
- Business owners and operators
- Interested individuals

The *Corridor Management Plan* Document

The Loess Hills National Scenic Byway *Corridor Management Plan* can help Primary, Supporting and Constituent Stakeholders manage, enhance, develop and protect the resources of the Byway and its Corridor. In guiding the way, the *Plan* is a:

- Reference for Scenic Byway and Corridor related data;
- Framework for short and long-term action;
- Record of accomplishments in implementing the plan; and
- Supplement to other sources of information on the Byway and its Corridor region.

Development of the *Corridor Management Plan* initially involved the completion of a series of special studies on various aspects of the Loess Hills National Scenic Byway Corridor. Special studies addressed resource assessment, public participation, demand for amenities, tourism development, land use strategies, signage and other topics. Significant findings and recommendations from each study have been incorporated throughout the *Plan*. These studies include:

- Loess Hills Landscape Resource Study
- Visual Preference Study
- Resource Assessment Rating System
- Public Input in Corridor Planning Study
- Loess Hills National Scenic Byway Viewshed Study
- Public Amenity Spacing Study
- Loess Hills National Scenic Byway Marketing Plan
- Loess Hills National Scenic Byway Sign Plan
- Economic Impact and Valuation of Recreation in the Loess Hills: Survey & Results
- Bicycle Route Selection Study
- Land Use Strategies Study
- Low Impact Development Study
- Cultural Resources Study
- Loess Hills Recreation Plan
- Loess Hills National Scenic Byway Interpretive Master Plan

The *Corridor Management Plan* consists of the following five sections:

Introducing the Plan

Understanding the Resources

Understanding Tourism

Corridor Development Actions

References

The first section, “Introducing the Plan,” discusses the processes used for planning and developing the Loess Hills National Scenic Byway. It also discusses the role of Byway stakeholders in implementing the *Plan*.

The “Understanding the Resources” section identifies the intrinsic qualities of the Loess Hills, or special natural and human-made features and resources. Intrinsic qualities are the key to a scenic byway’s creation and existence.

Sharing the intrinsic qualities of Iowa’s Loess Hills with visitors creates opportunities for economic and tourism development. The third section, “Understanding Tourism,” examines the economic impact and market potential of tourism in the Loess Hills.

In order to manage and protect the intrinsic qualities in the Loess Hills National Scenic Byway Corridor, the *Plan*’s fourth section, “Corridor Development Actions,” contains a series of recommended actions. A matrix presented in this section suggests the “Leaders” and “Participants” responsible for completing these actions along with levels of priority.

The final section, “References,” lists the references used in developing the *Plan*.

Implementation of the Loess Hills National Scenic Byway *Corridor Management Plan* will be an evolving and continuous process. As such, the *Plan* is a flexible and adaptive document that responds to and reflects changes in the Scenic Byway Corridor. The contents and notebook format of the *Corridor Management Plan* have been designed and assembled to facilitate the revision of existing information, incorporation of additional materials and recording of accomplishments.

Understanding the Resources

Section Contents

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Understanding the Natural Quality	35
Understanding the Archaeological Quality	60
Understanding the Scenic Quality	70
Understanding the Historic Quality	78
Understanding the Cultural Quality	98
Understanding the Recreational Quality	100
Understanding the Human Quality	117

Intrinsic Qualities and Scenic Byways

Scenic byways are roadways that travel through corridors possessing significant tangible and intangible resources (natural and human-made resources or features). These special resources are a scenic byway corridor’s “intrinsic qualities.” They are the most important features that distinguish the character of the scenic byway corridor. More specifically, intrinsic qualities are defined as being (US Government Federal Register 26759, 1995):

Natural	Scenic
Historic	Archeological
Cultural	Recreational

They are features of any area that are considered:

- Representative
- Unique
- Irreplaceable
- Distinctly characteristic

Intrinsic qualities are the key to a scenic byway’s creation and management. The selection of roadways as part of a scenic byway depends on the presence of one or more intrinsic qualities. The Federal Highway Administration’s National Scenic Byways Program has guidelines for designation of roadways to become scenic byways in areas that possess certain intrinsic qualities. To qualify as a National Scenic Byway a roadway corridor must possess at least one of the six intrinsic qualities. Management of a scenic byway corridor strives to balance the use and conservation of its intrinsic qualities. A corridor management plan presents strategies and identifies mechanisms that communities, public agencies and private organizations can use to develop, enhance and protect a scenic byway corridor’s intrinsic qualities.

Intrinsic Qualities & the Loess Hills National Scenic Byway

The special character and value of Iowa’s Loess Hills are products of the unique and diverse resources they possess. As rich as the Loess Hills are in remarkable natural features, archaeological heritage and breathtaking scenery, they are equally endowed in history and recreational opportunities. This wealth of resources--intrinsic qualities--in the Loess Hills and the desire of local communities to protect and share them were principal considerations in the establishment of the Loess Hills National Scenic Byway.

The Loess Hills National Scenic Byway Corridor is extraordinary in that it possesses resources in all six of the intrinsic quality categories identified by the Federal Highway Administration’s National Scenic Byways Program. The strategies, recommendations and tools presented in this *Corridor Management Plan* encourage the sound management and protection of these intrinsic qualities. Implementation of the *Plan* will provide residents and visitors with opportunities to better understand, appreciate and enjoy this unique region of the United States and the world. Furthermore, the resource assessment and management guidelines presented in this *Plan* will contribute toward future state and national designations for the Loess Hills National Scenic Byway.

Intrinsic Qualities - What needs to be done?

The next section of the *Corridor Management Plan* examines each of the intrinsic qualities found in the Loess Hills National Scenic Byway Corridor.

“Human” quality has been added to the list of intrinsic qualities because of the important role that people play in protecting, managing and promoting the resources of the Loess Hills National Scenic Byway Corridor.

The discussion of each of the intrinsic qualities highlights the most significant resources representative of that quality. In addition, discussion of the various intrinsic qualities includes a brief statement of “What needs to be done?” to accomplish their improved management and protection. Actions recommended to enhance and protect each of the intrinsic qualities are presented in the “Corridor Development Actions” section of the Corridor Management Plan.

The discussion of each of the intrinsic qualities highlights the most significant resources representative of that quality. In addition, discussion of the various intrinsic qualities includes a brief statement of “What needs to be done?” to accomplish their improved management and protection. Actions recommended to enhance and protect each of the intrinsic qualities are presented in the “Corridor Development Actions” section of the *Corridor Management Plan*.

Natural quality applies to those intrinsic natural features in the corridor’s landscape that exist in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landform, water, vegetation and wildlife. There may be evidence of human activity, but the natural features reveal minimal disturbances (U.S. Government Federal Register 26761, 1995).

Understanding Natural Quality

Definition of Natural Quality

Natural quality applies to those intrinsic natural features in the corridor's landscape that exist in a relatively undisturbed state. These features predate the arrival of human populations and may include geological formations, fossils, landform, water, vegetation and wildlife. There may be evidence of human activity, but the natural features reveal minimal disturbances (U.S. Government Federal Register 26761, 1995).

What do we know?

From a national perspective, the Loess Hills is the most unique open space in Iowa (Iowa Open Space Plan 32, 1988). The unusual topographic and ecological characteristics of this landform region are products of the thick loess deposits and the special physical properties of the loess soil. While loess deposits are widespread throughout Iowa and much of the Midwest, in few other places do they reach thickness in excess of 200 feet as found in the Loess Hills. Loess soil is highly permeable and has the ability to stand at a very steep slope which promotes development of exceptionally well-drained, high relief landscape. This, together with strong winds and intense sunlight provides a special environment for rare and representative plant and animal species.



Yucca on hill

D. Poggensee

Many of the Loess Hills' special natural qualities lie within the region's upland prairies. Native prairie, once widespread across the Midwest, has been reduced to less than one percent of its original extent in Iowa (Ott 2-3, 1995). The Loess Hills contain most of Iowa's remaining native prairie, including the largest expanses of undisturbed, self-sustaining prairie in the state. Today, these remaining native grasslands of the Loess Hills are a significant part of Iowa's prairie heritage.

Native prairie in the Loess Hills provides habitat for a large number of plants and animals that are not found in other areas of Iowa. In

fact, Iowa's Loess Hills have been called the state's most significant region for unusual plants and rare animals (Roosa 163, 1986). A total of 45 Loess Hills species are classified as rare in Iowa. Of those, 21 are on the state's threatened or endangered list (Mutel 161, 1989).

Representative Natural Resources in the Loess Hills National Scenic Byway Corridor

Specific resources in the Loess Hills are most representative of the region's intrinsic natural quality. Those resources that best depict the unique natural quality of the Loess Hills National Scenic Byway Corridor include:

National Natural Landmark: The National Park Service has designated more than 10,000 acres of the Loess Hills as a National Natural Landmark. This national designation recognizes the Loess Hills as the best example of loess topography in the United States. The designation highlights the uniqueness of the Loess Hills in the world and the landform's importance from a state perspective. National Natural Landmark designation of the Loess Hills comprises two sites, the Turin site in Monona County (7,440 acres) and the Little Sioux/Smith Lake site in Harrison County (2,980 acres). These sites were selected as being most representative of the Loess Hills landform in western Iowa.

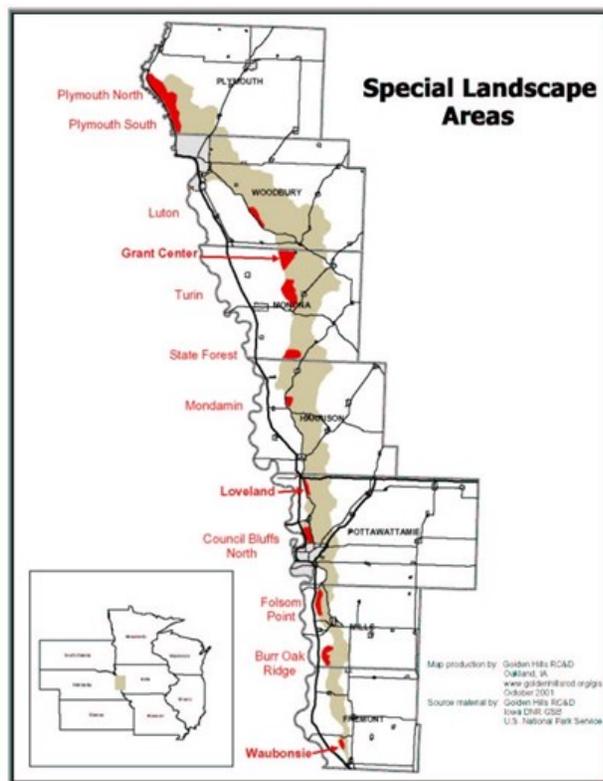
Iowa State Preserves: The Iowa DNR has designated four areas consisting of 1,400 acres in the Loess Hills as part of the Iowa State Preserves System. The Iowa State Preserve system was created to identify and preserve, for this and future generations, portions of Iowa's most significant and representative natural, geological, archaeological, historical, and scenic resources and features. The four Iowa State Preserves in the Loess Hills are:

- Five Ridge Prairie Preserve in Plymouth County (789 acres)
- Mount Talbot Preserve in Woodbury County (90 acres)
- Turin Loess Hills Preserve in Monona County (220 acres)
- Sylvan Runkel Preserve, in Monona County (330 acres)

These Preserves in the Loess Hills provide the highest level of recognition and protection for the best examples of the region's and state's most outstanding natural resources.

In addition to the four established state preserves, the Iowa DNR, as of December 2008, is in the process of naming a new state archaeological preserve on a 917-acre site just south of Glenwood in Mills County. The former home of the Glenwood Resource Center, this area has 117 known archaeological sites. A formal systematic archaeological survey has yet to be completed. It is believed that many more sites will be uncovered during the survey.

The Nature Conservancy Preserves: The Iowa Chapter of The Nature Conservancy has established two preserves in the Loess Hills: Broken Kettle Grassland (3,220 acres) in Plymouth County, Sioux City Prairie (157 acres) in Sioux City, Woodbury County, and Folsom Point Preserve (5,021 acres) in Pottawattamie and Mills Counties. This designation recognizes these areas for the significance of their natural features in terms of representing the biodiversity of the Loess Hills. The Nature Conservancy identified, acquired and manages these preserves to protect their unique natural features.



Critical Resource Areas: The Loess Hills region consists of more than 1,200 square miles in western Iowa. The Loess Hills Landscape Resource Study, completed in 1994, determined that many areas of the Loess Hills (658 of 5,047 quarter sections in the study area) contain resources deemed critically important. Critical Resource Areas have been identified based on the presence of fragile soils (predominantly the highly erodible soils of the Ida-Hamburg association with slopes of 20% to 75%) and locations of rare, threatened and endangered plant and animal species. Critical Resource Areas also indicate the presence of significant historical, cultural and archeological resources.

Identification of Critical Resource Areas provides information to better understand and protect the unique resources of the Loess Hills (*Loess Hills Landscape Resource Study* 8, 15, 1994).

Special Landscape Areas: In 2001, the National Park Service conducted “The Loess Hills of Western Iowa Special Resource Study and Environmental Assessment.” In this study, 12 Special Landscape Areas, were identified that encompass nearly 100,000 acres of the Loess Hills. The twelve areas have been identified because they possess exemplary geologic, topographic and scenic features that best characterize the Loess Hills landform. (The Loess Hills of Western Iowa Special Resource Study and Environmental Assessment, 2001) The SLAs identified include:

- Broken Kettle SLA in Plymouth County (12,000 acres) 66% protected
- Plymouth South SLA in Plymouth County (13,549 acres) 12% protected
- Luton SLA in Woodbury County (1,941 acres) 38% protected
- Grant Center SLA in Woodbury and Monona Counties (5,364 acres) 0% protected
- Turin SLA in Monona County (15,049 acres) 47% protected
- Little Sioux SLA in Monona and Harrison Counties (23,736 acres) 32% protected
- Mondamin SLA in Harrison County (5,394 acres) 23% protected
- Loveland SLA in Harrison and Pottawattamie Counties (3,828 acres) 36% protected
- Council Bluffs North SLA in Pottawattamie County (5,028 acres) 0% protected
- Folsom Point SLA in Pottawattamie and Mills Counties (5,936 acres) 10% protected
- Burr Oak Ridge SLA in Mills and Fremont Counties (6,000 acres) 1% protected
- Waubonsie SLA in Fremont County (4,249 acres) 50% protected

DeSoto National Wildlife Refuge: DeSoto National Wildlife Refuge (9,800 acres), located in Harrison County, is one of the US Fish and Wildlife Service's most outstanding facilities. DeSoto is a major resting area in the nation's central flyway for hundreds of thousands of migratory waterfowl. The Refuge protects significant Missouri River floodplain resources and provides a variety of recreational opportunities associated with the River. A visitor center and museum at the Refuge interprets important natural, cultural and historic resources of the region. The Steamboat Bertrand Exhibit showcases more than 500,000 artifacts excavated from the Bertrand, which sank in the Missouri River in 1865. The Loess Hills and Missouri River Valley, while geographically distinct, are connected in that the intrinsic qualities of the Loess Hills can seldom be described, or fully appreciated, without understanding their relationship with those of the Missouri River.

Maps

State Preserves

National Natural Landmark Area

Prairie Areas

Rare Flora and Fauna

Steep Slope Areas

What needs to be done?

It is the uniqueness of the region's natural resources and features that contributes most to the special character and significance of the Loess Hills National Scenic Byway Corridor. As such, protection of the enormous natural quality of the corridor should receive the highest priority. Increased public awareness combined with sound land use strategies will help accomplish this protection of the Scenic Byway Corridor's natural quality. Specific actions included in the section, "Corridor Development Actions" of the Corridor Management Plan, will address the need to:

- Improve the public's enjoyment and understanding of resources that contribute to the unique natural quality of the Loess Hills National Scenic Byway Corridor; and
- Implement land use strategies that will protect the most significant and representative natural resources of the Scenic Byway Corridor.



Foothills Park, Mills County

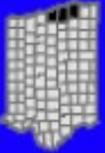
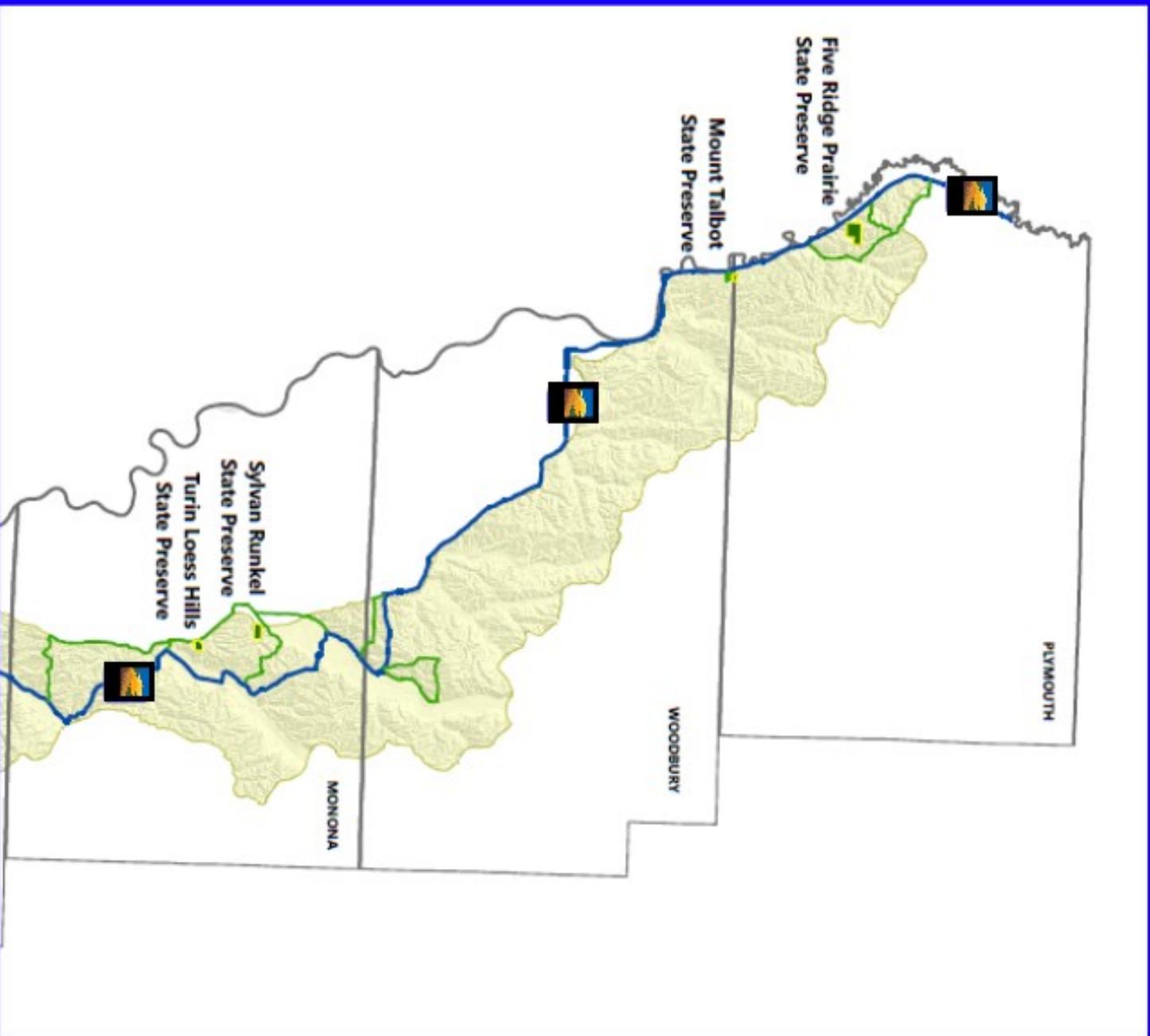
L. Brisbois



State Preserves Western Iowa Loess Hills

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pettawascottia County GIS Department



Loess Hills Scenic Byway Spine
 Loess Hills Scenic Byway Loop
 State Preserves
 Loess Hills Landform

0 2 4 8 12 Miles

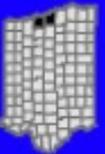
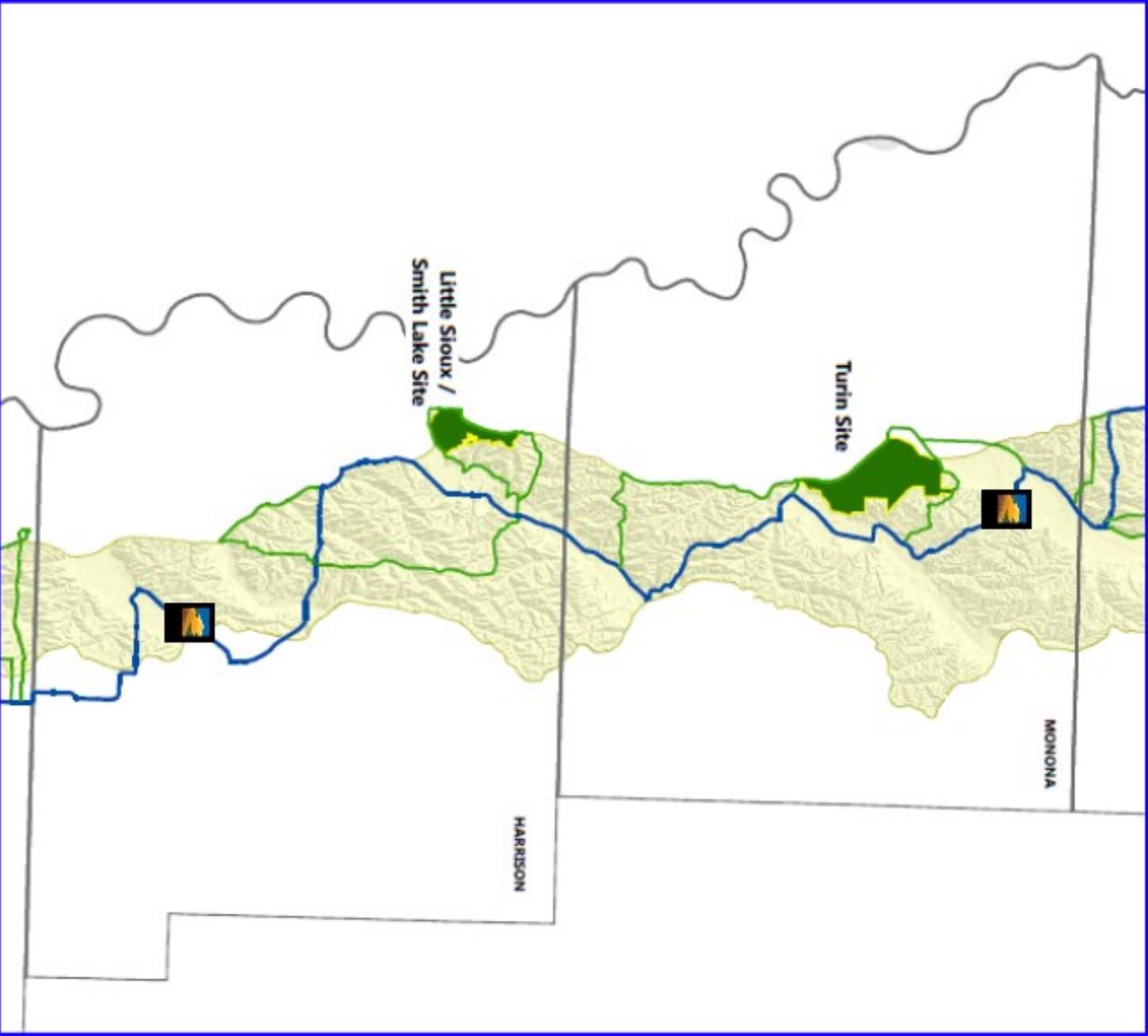




Natural National Landmark Area Western Iowa Loess Hills

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Polk/Western/Iowa County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- National Natural Landmarks
- Loess Hills Landform

0 1.5 3 6 9 Miles

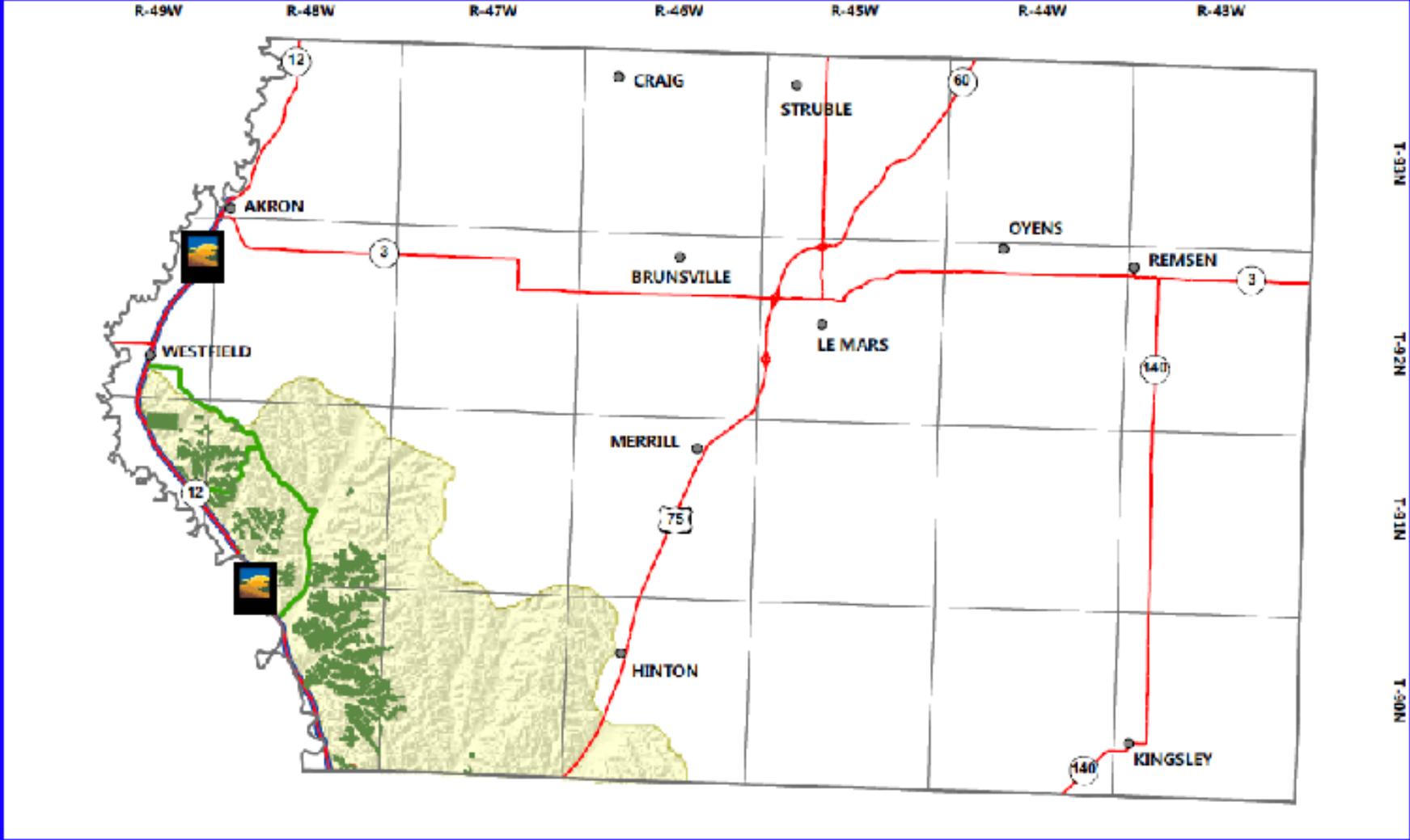




Prairie Areas Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Highways
-  Prairie Areas
-  Township Line
-  Loess Hills Landform Region

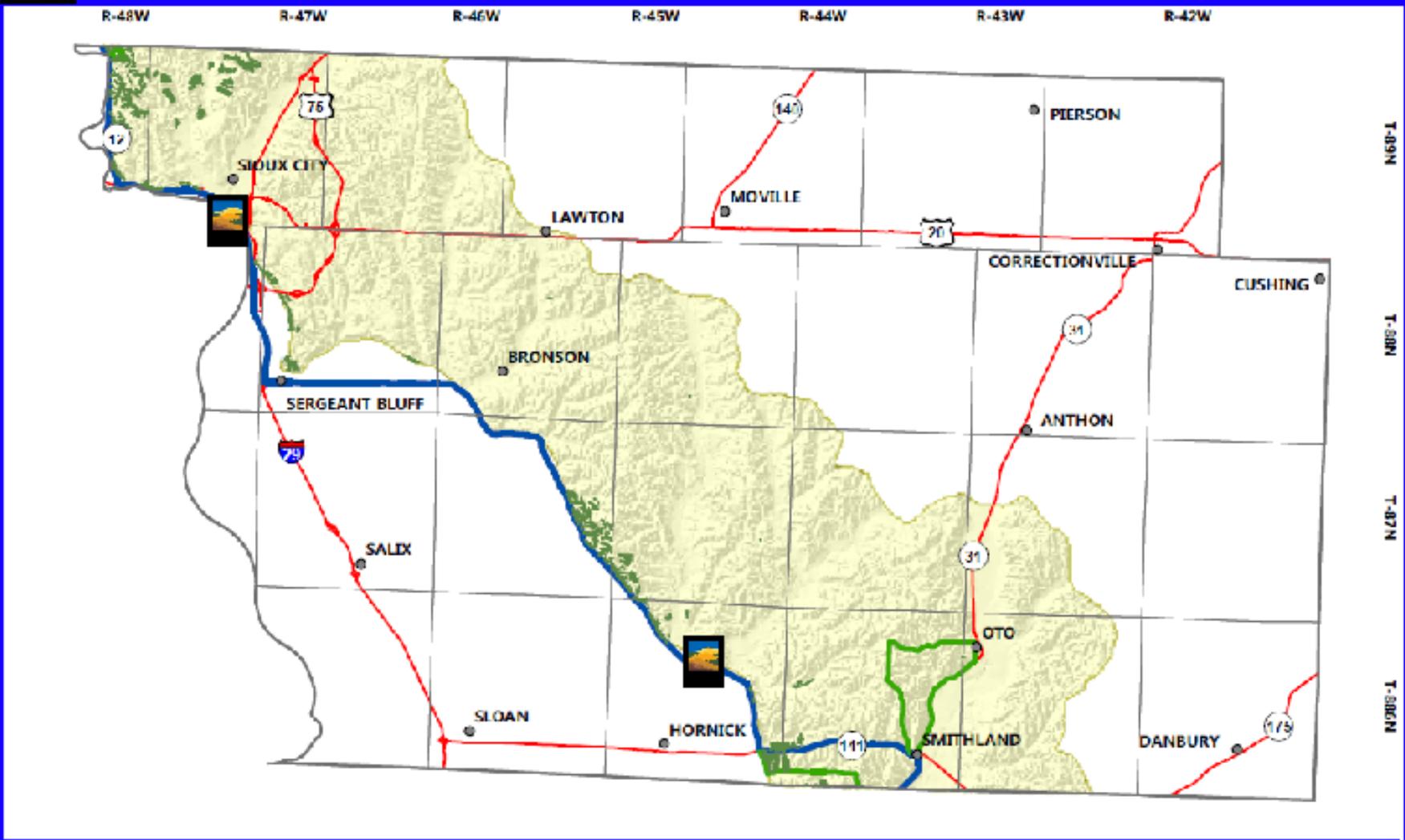




Prairie Areas Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Polk/Wattawamba County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Prairie Areas
-  Township Line
-  Loess Hills Landform Region

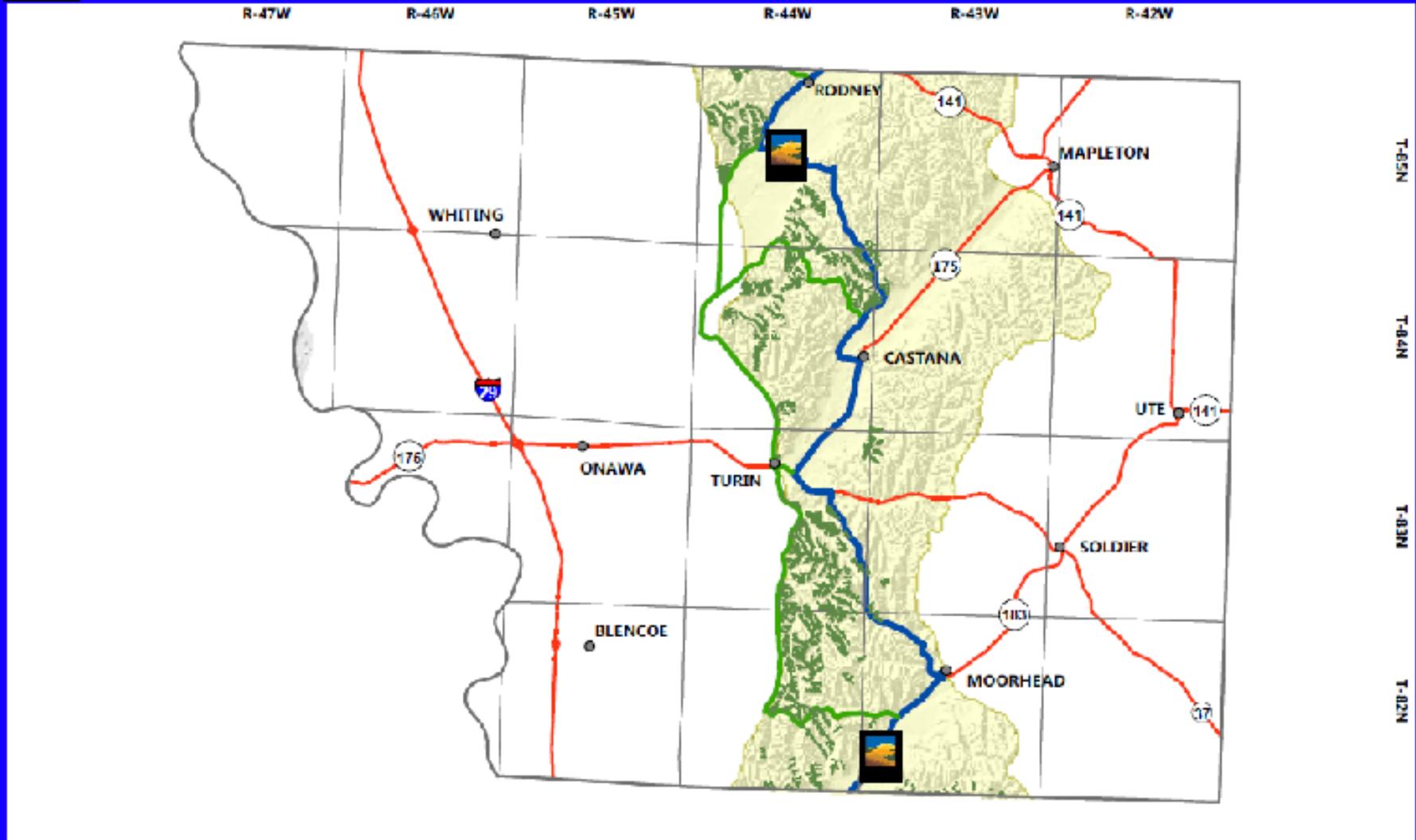




Prairie Areas Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Polk/Wattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Prairie Areas
- Township Line
- Loess Hills Landform Region



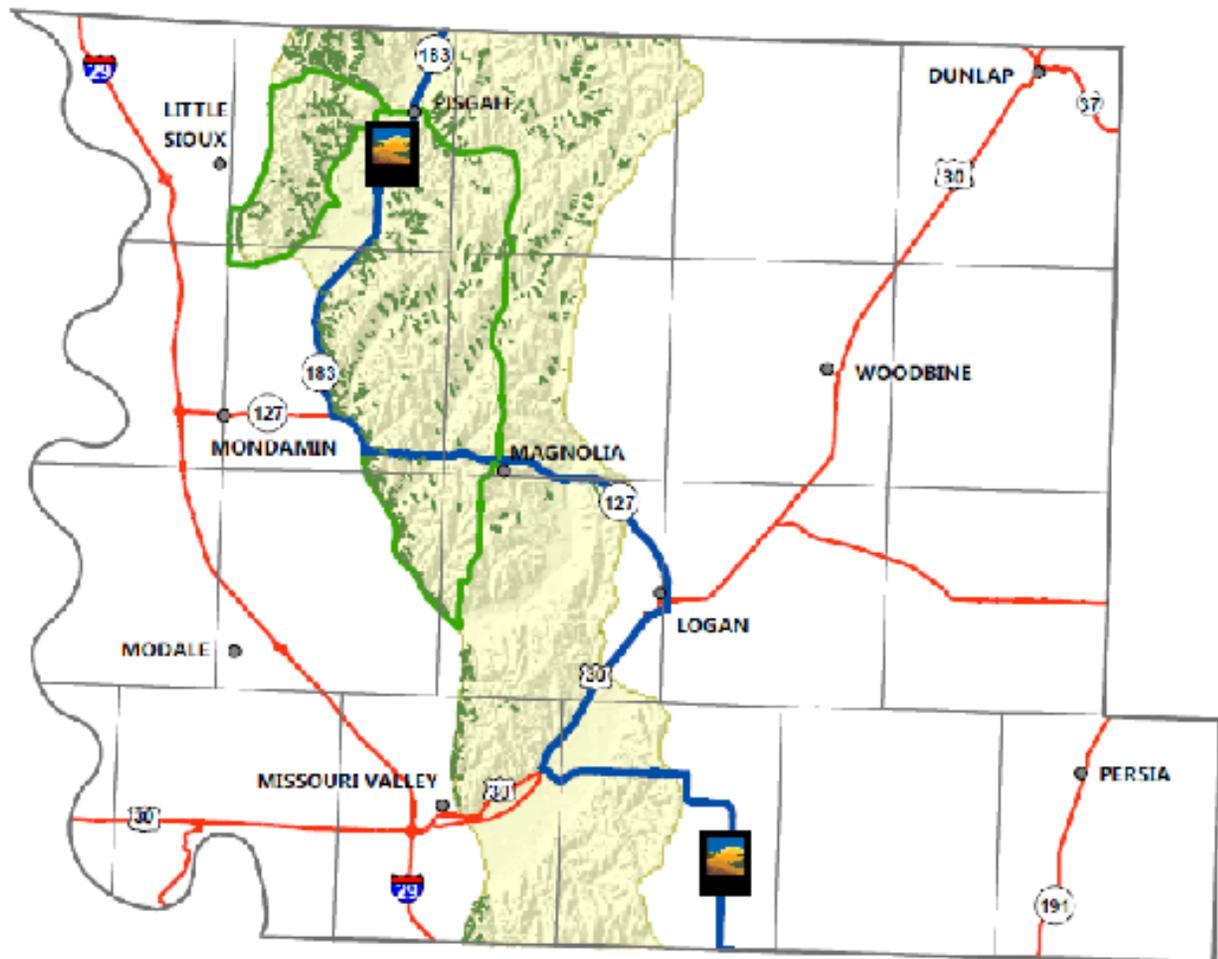


Prairie Areas Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

R-46W R-45W R-44W R-43W R-42W R-41W



T-68N
T-69N
T-70N
T-71N
T-72N
T-73N
T-74N
T-75N
T-76N
T-77N
T-78N



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Prairie Areas
- Township Line
- Loess Hills Landform Region

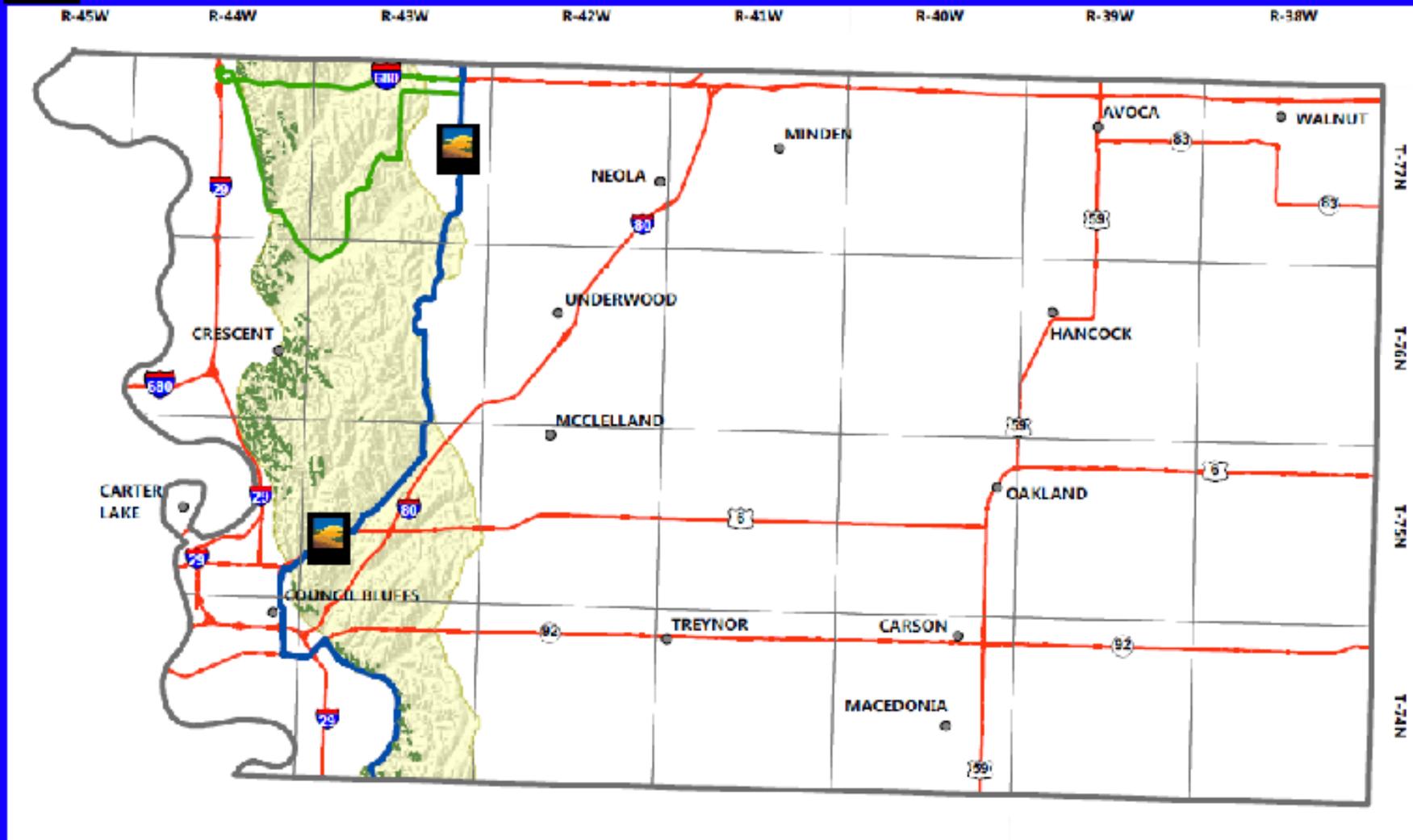




Prairie Areas
Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Prairie Areas
- Township Line
- Loess Hills Landform Region

0 1.25 2.5 5 7.5 Miles

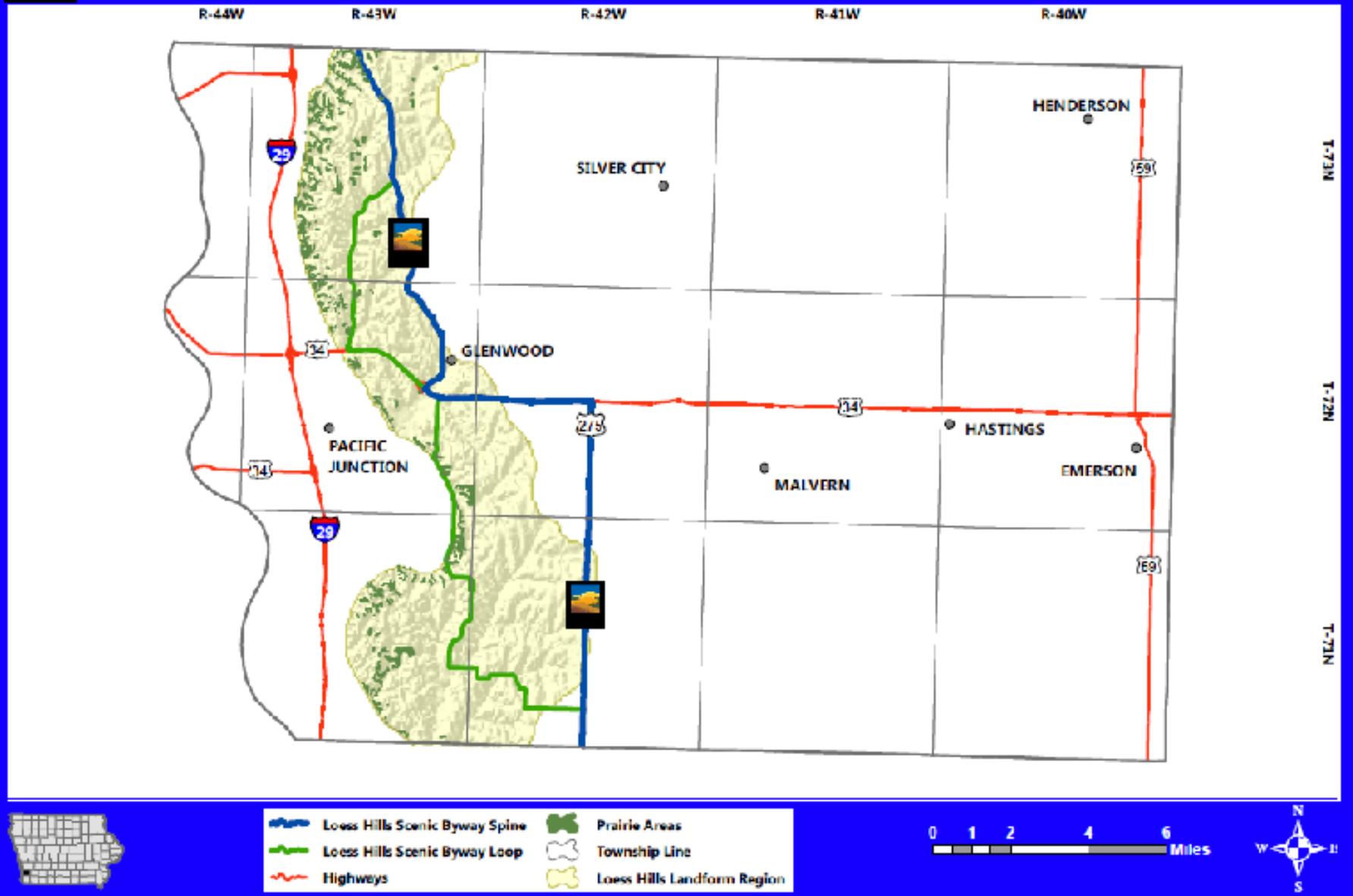




Prairie Areas Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

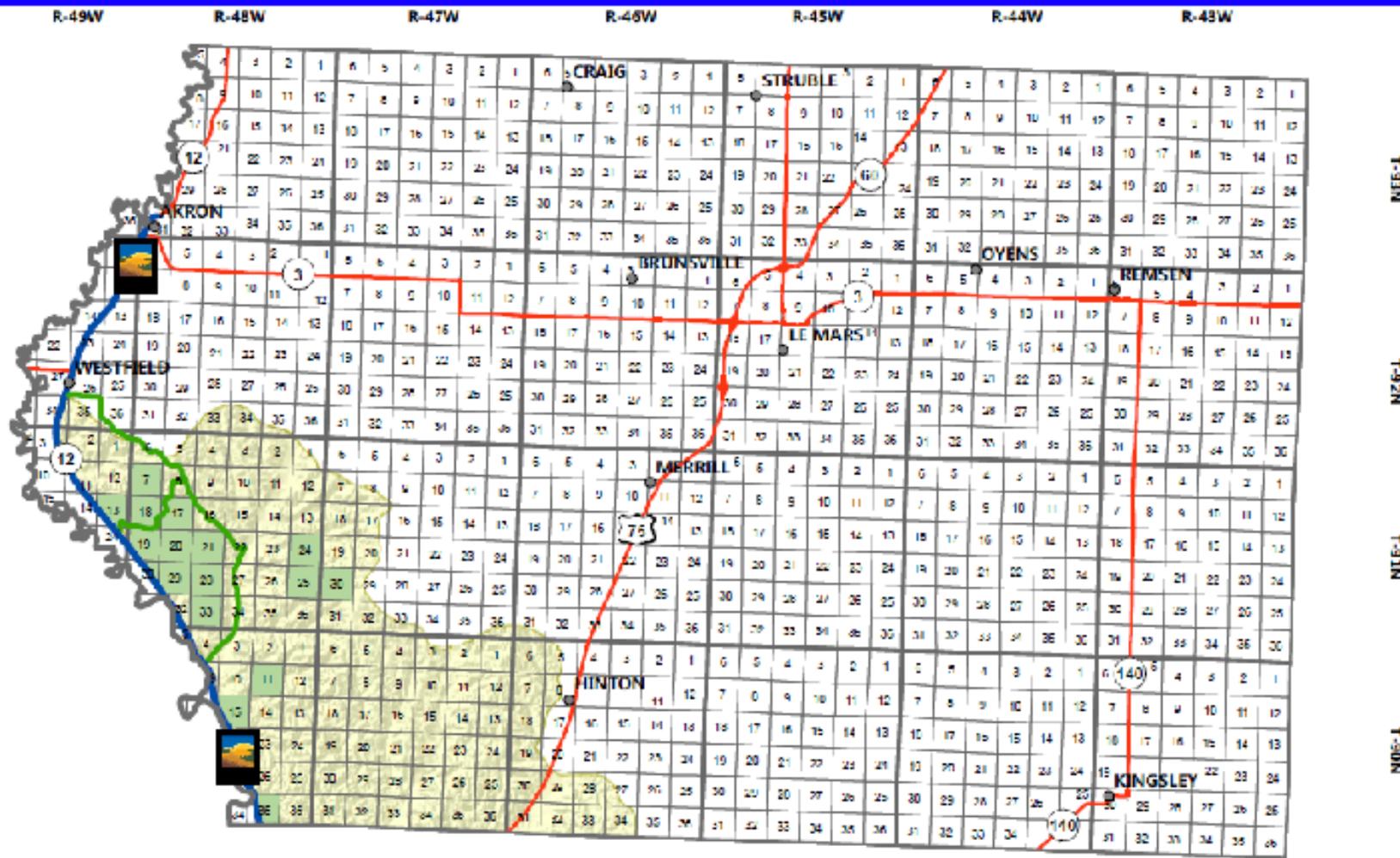




Rare Flora and Fauna Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Rare Flora & Fauna
- Township Line
- Section Line

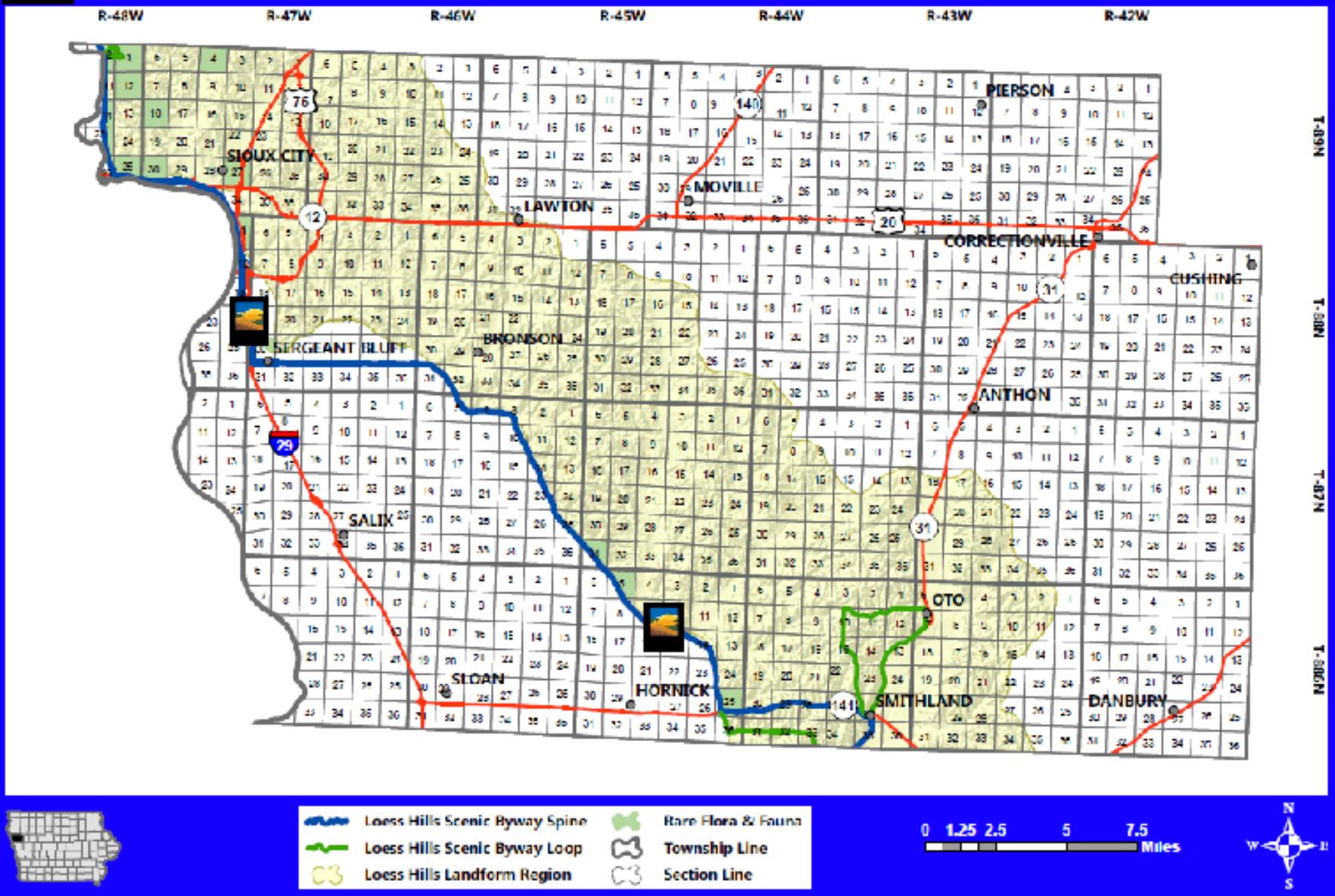




Rare Flora and Fauna Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Rare Flora & Fauna
- Township Line
- Section Line

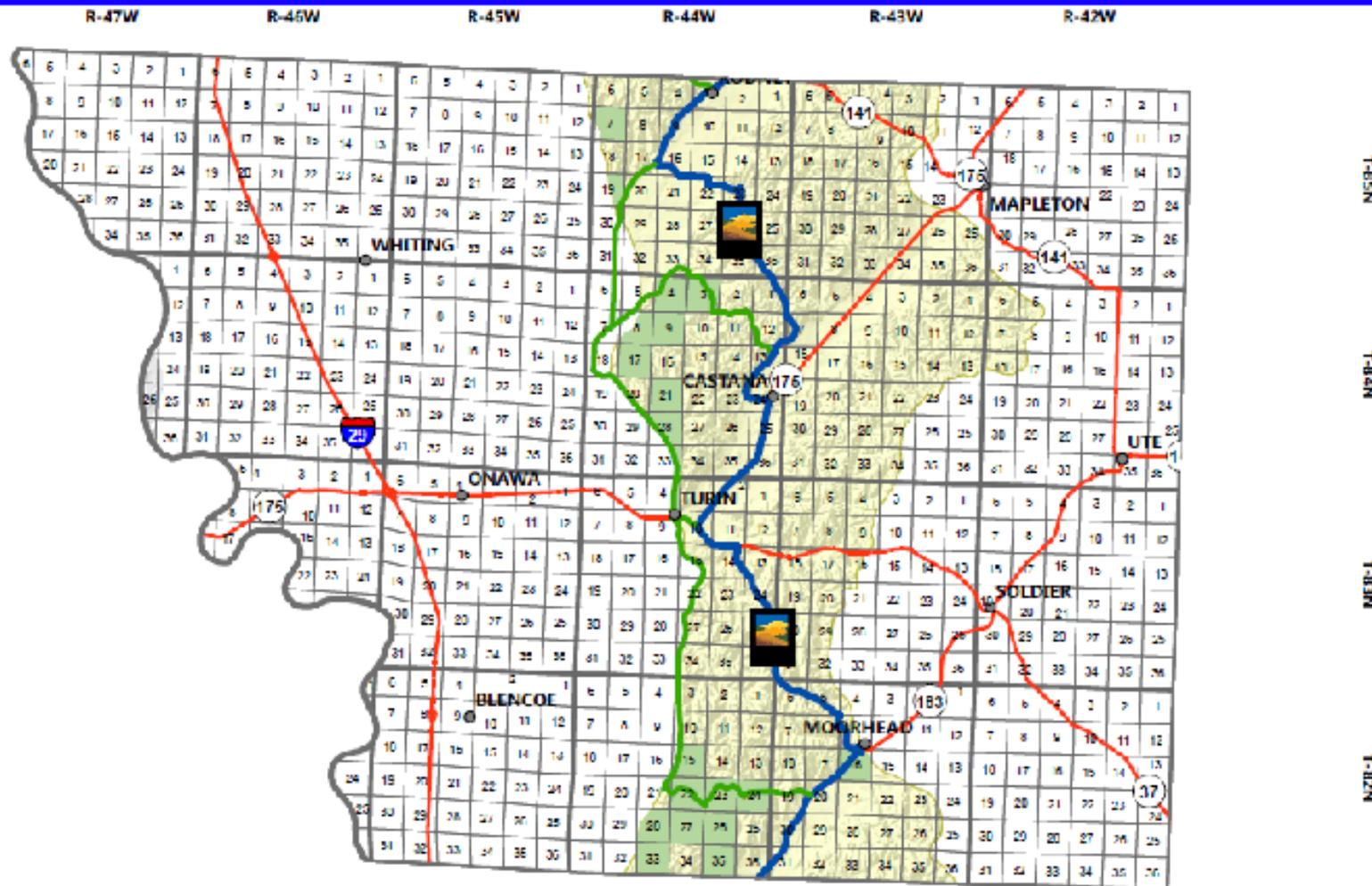




Rare Flora and Fauna Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Rare Flora & Fauna
- Township Line
- Section Line



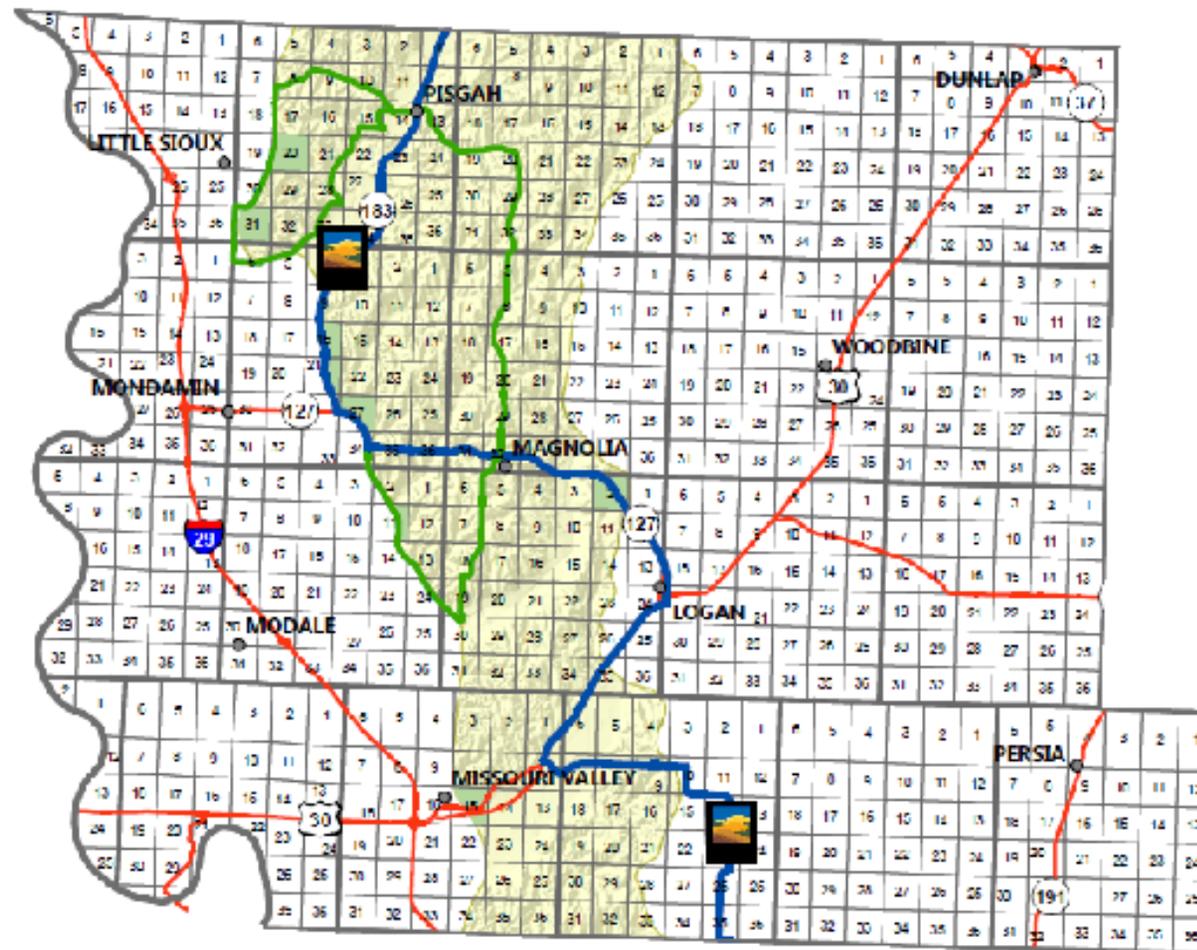


Rare Flora and Fauna
Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

R-46W R-45W R-44W R-43W R-42W R-41W



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Loess Hills Landform Region
-  Rare Flora & Fauna
-  Township Line
-  Section Line

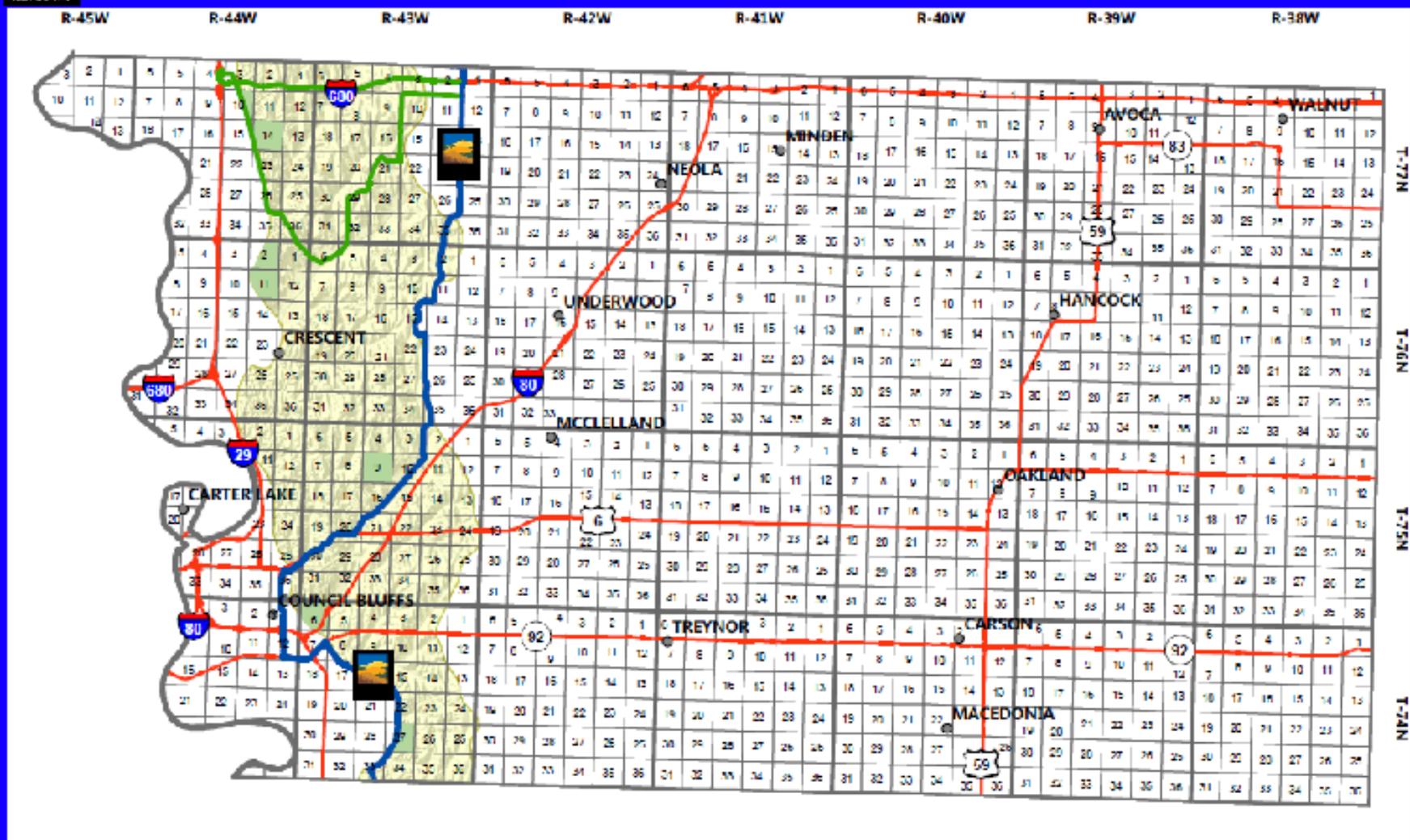




Rare Flora and Fauna Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Rare Flora & Fauna
- Township Line
- Section Line

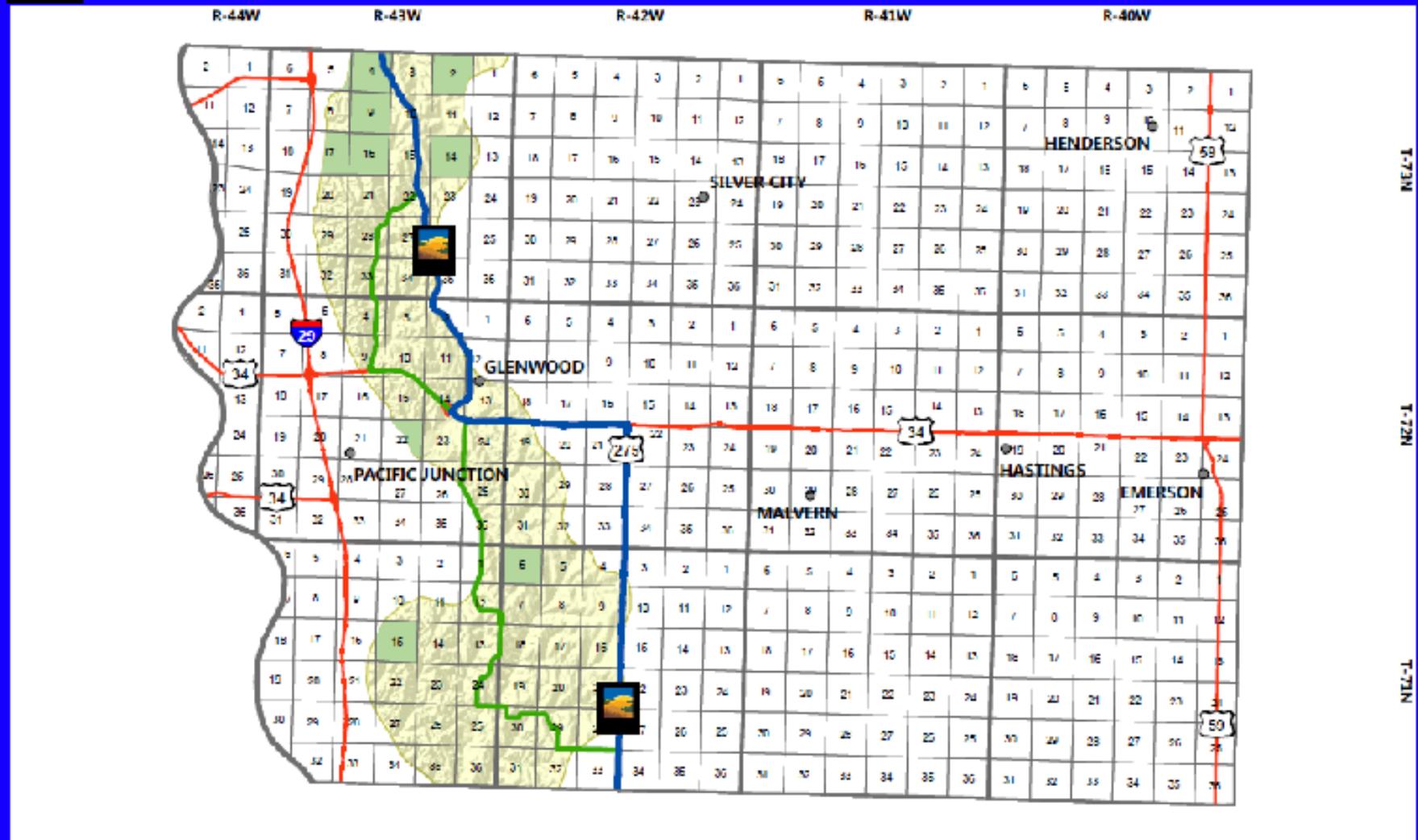




Rare Flora and Fauna
Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pettawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Rare Flora & Fauna
- Township Line
- Section Line

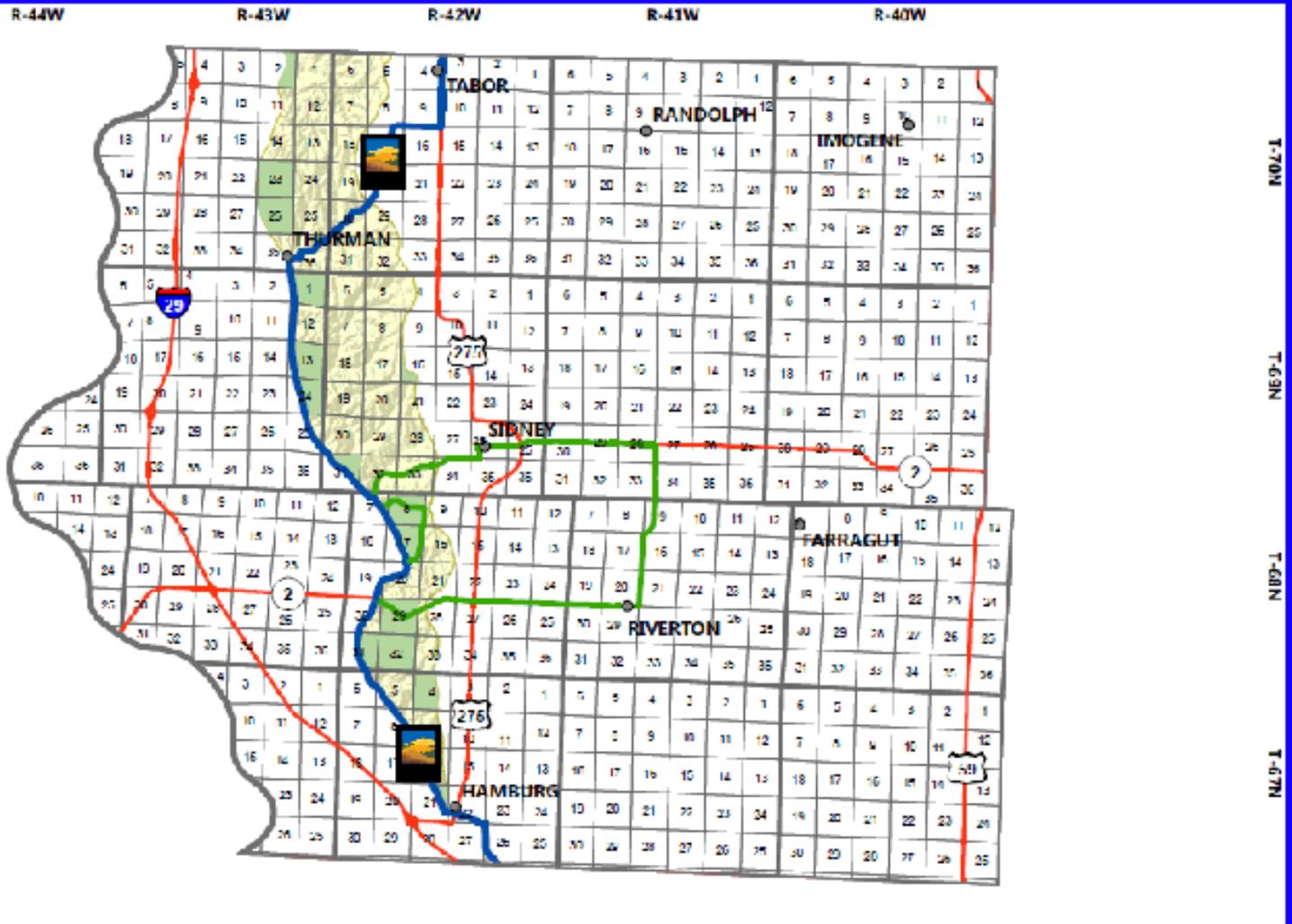




Rare Flora and Fauna
Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pettawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Rare Flora & Fauna
- Township Line
- Section Line

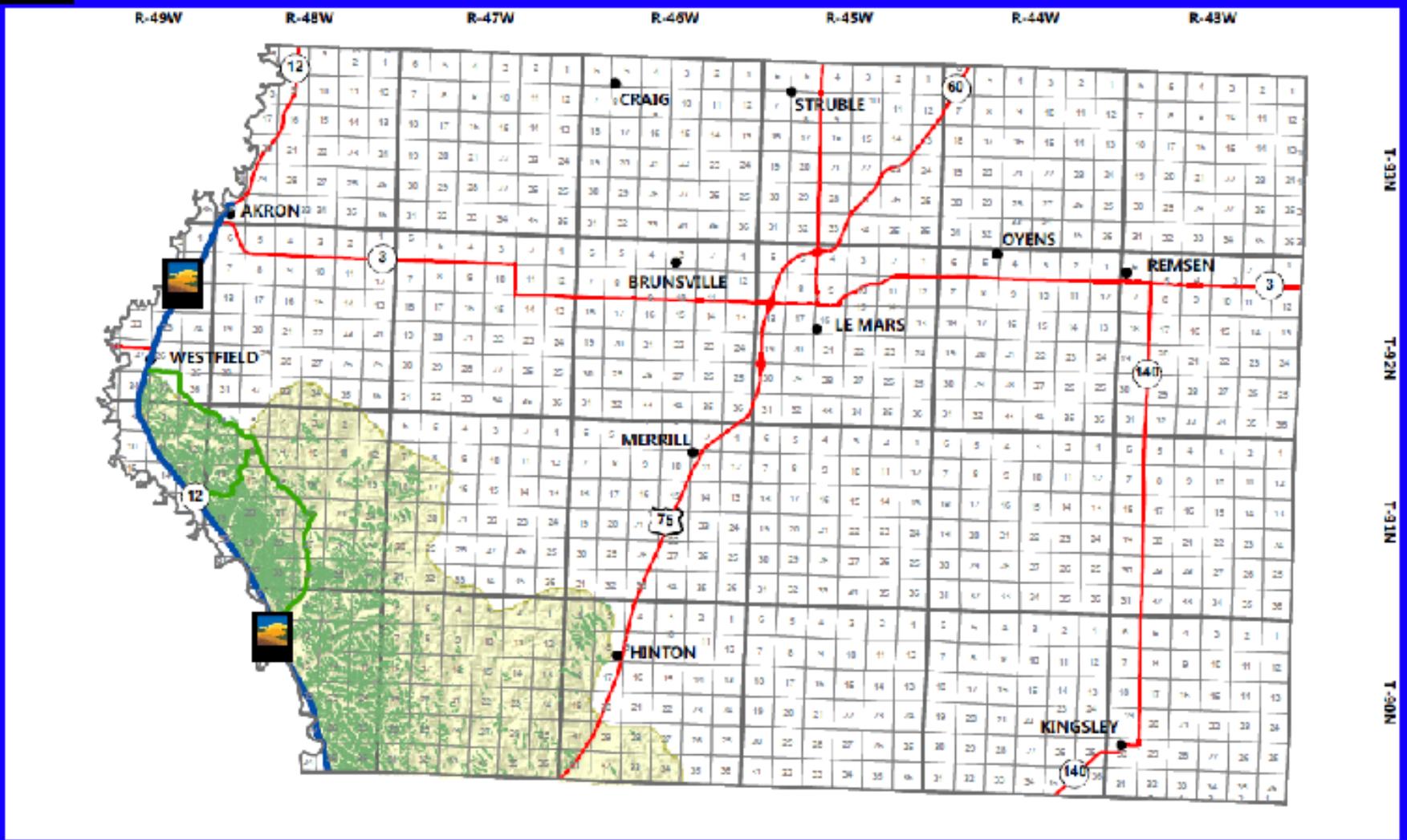




Steep Slope Areas Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Slopes Greater or Equal to 20%
- Township Line
- Section Line
- Loess Hills Landform Region



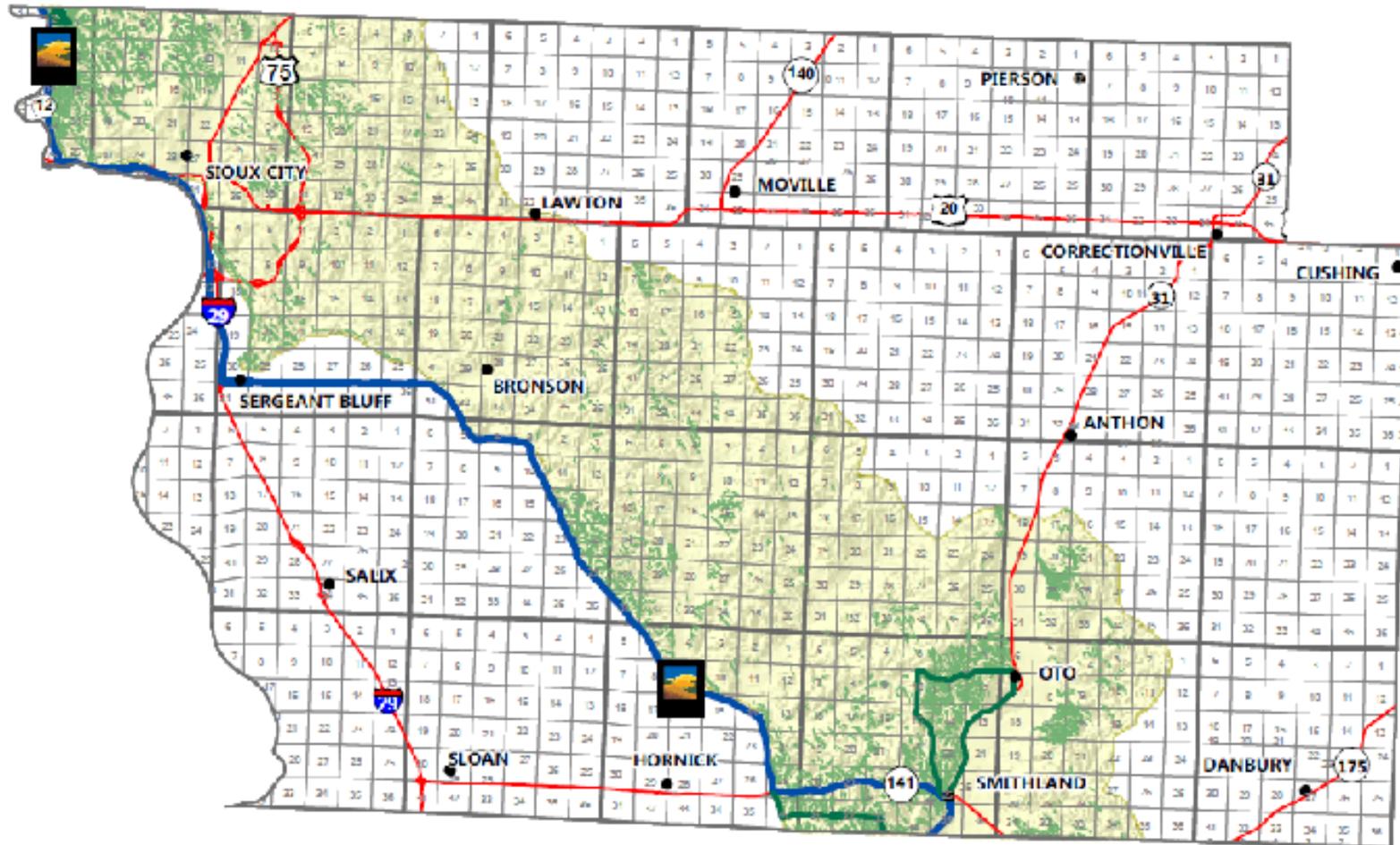


Steep Slope Areas Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

R-48W R-47W R-46W R-45W R-44W R-43W R-42W



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Slopes Greater or Equal to 20%
- Township Line
- Section Line
- Loess Hills Landform Region

0 1.25 2.5 5 7.5 Miles

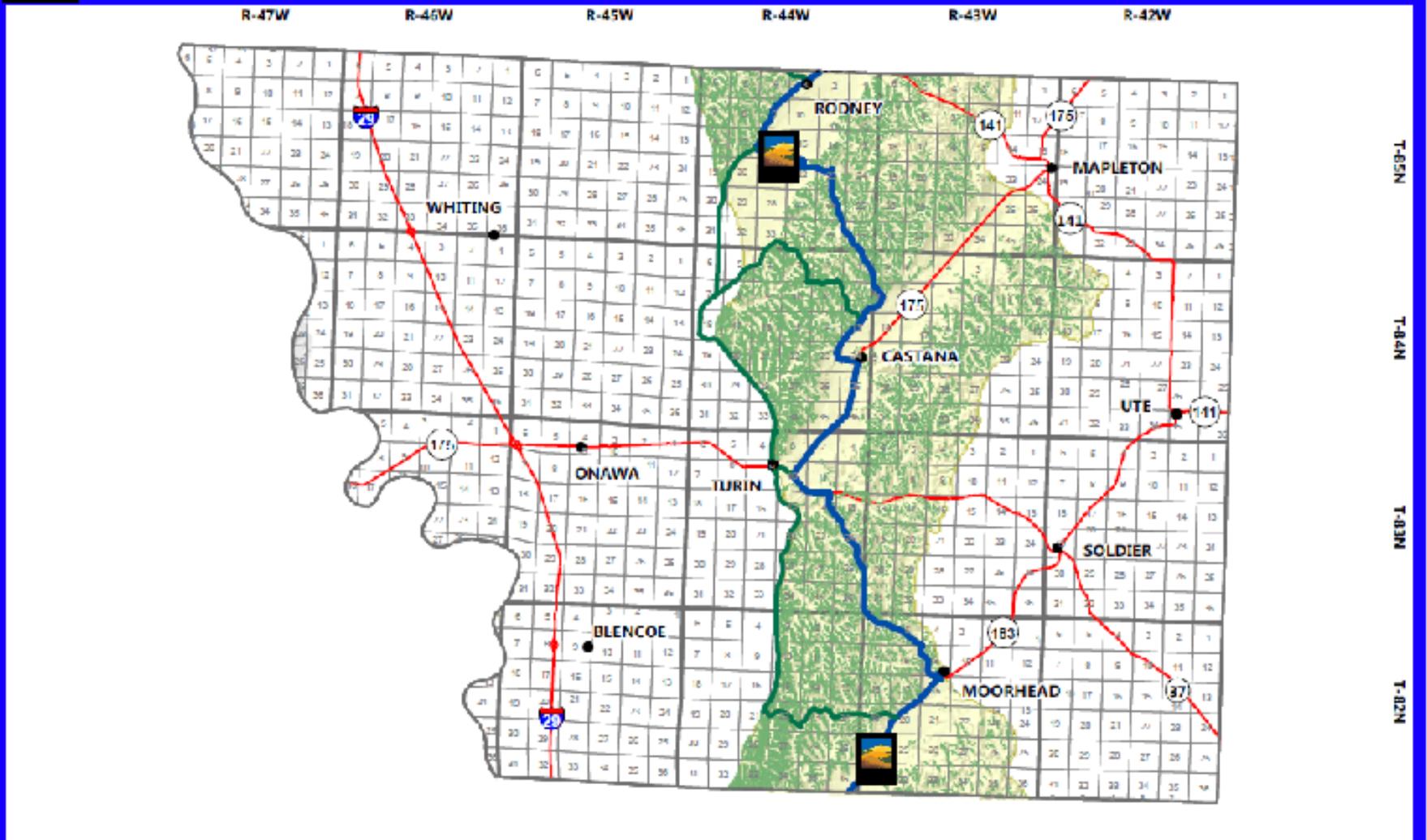




Steep Slope Areas Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



 Loess Hills Scenic Byway Spine	 Township Line
 Loess Hills Scenic Byway Loop	 Section Line
 Slopes Greater or Equal to 20%	 Loess Hills Landform Region



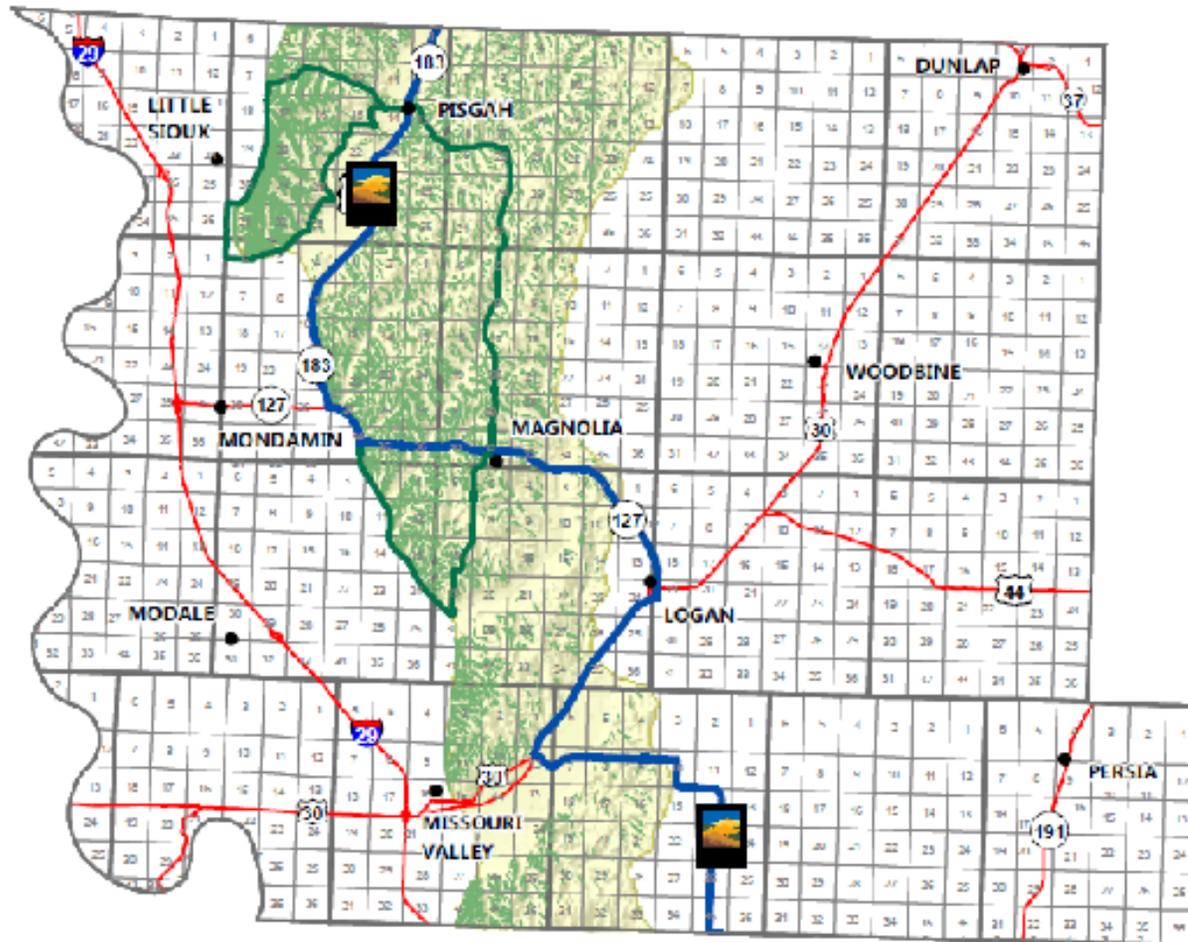


Steep Slope Areas Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

R-46W R-45W R-44W R-43W R-42W R-41W



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Slopes Greater or Equal to 20%
- Township Line
- Section Line
- Loess Hills Landform Region

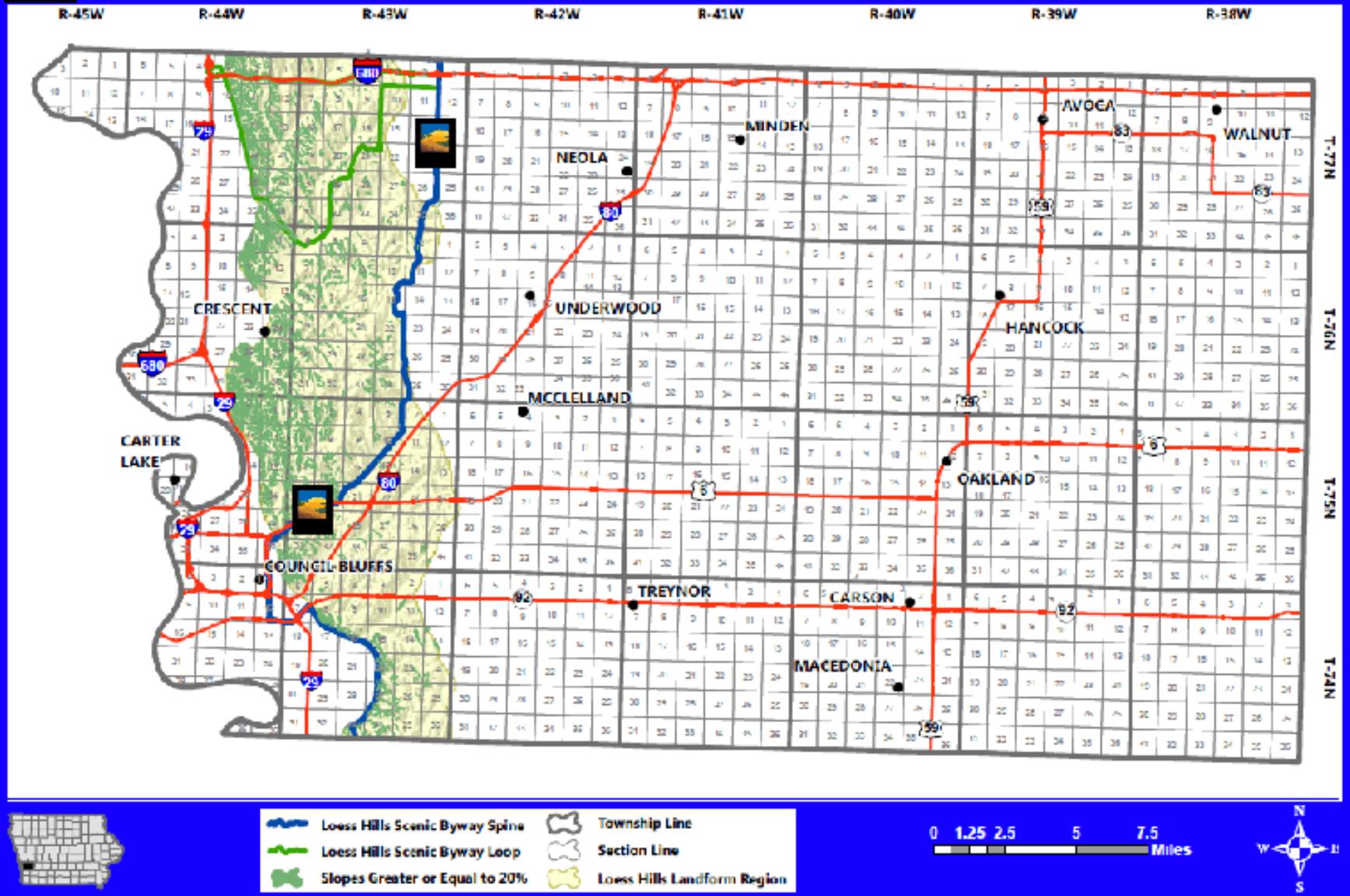




Steep Slope Areas Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

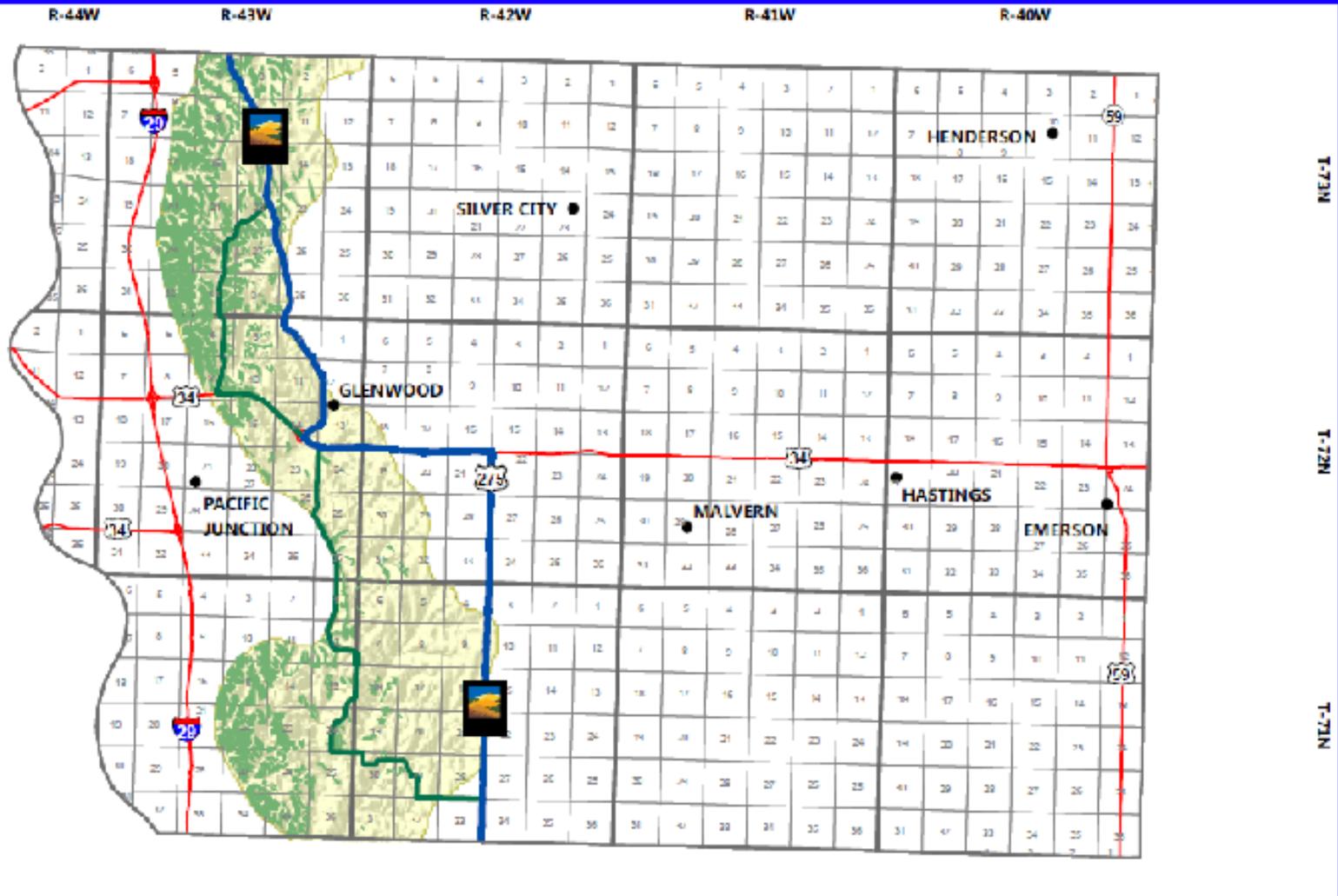




Steep Slope Areas Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Slopes Greater or Equal to 20%
- Township Line
- Section Line
- Loess Hills Landform Region

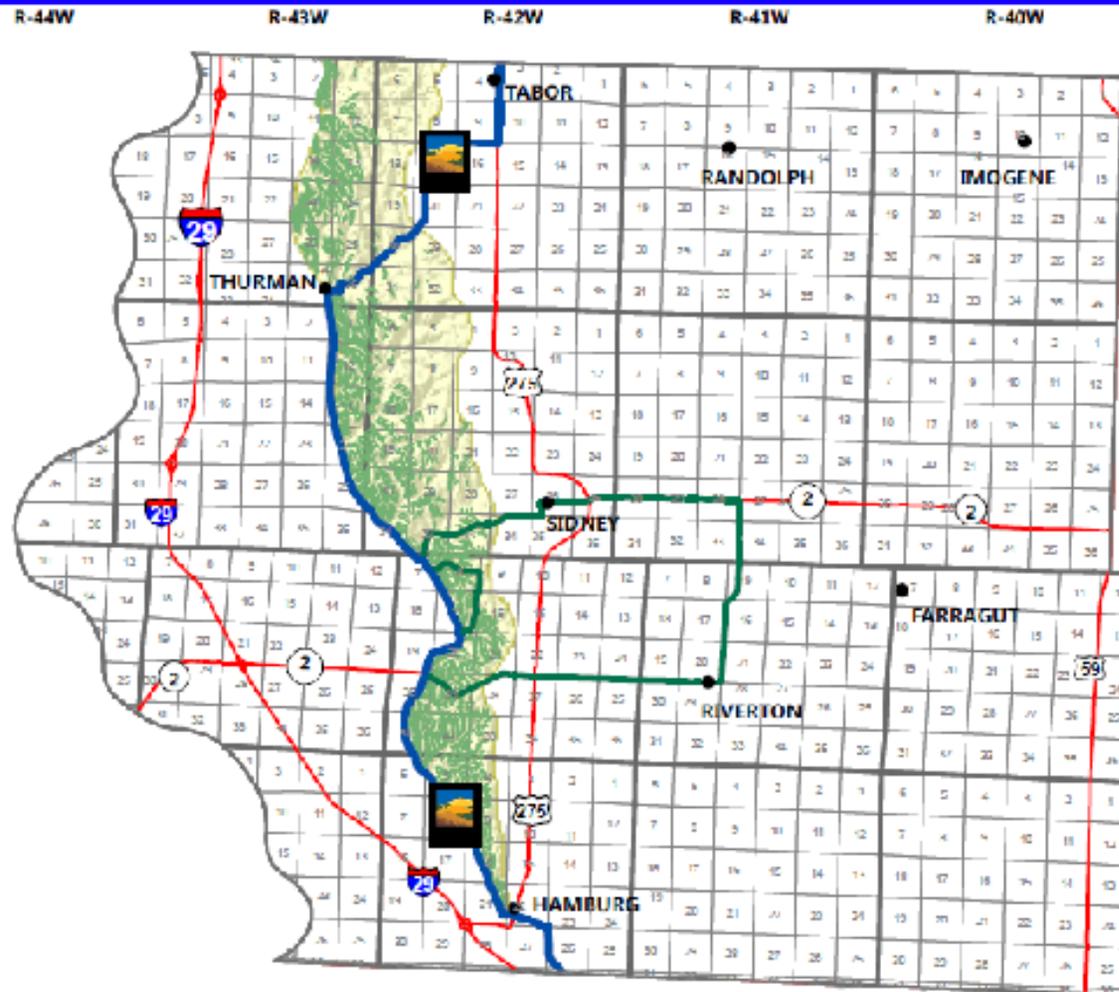




Steep Slope Areas Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Slopes Greater or Equal to 20%
- Township Line
- Section Line
- Loess Hills Landform Region



Understanding the Archaeological Quality

Definition of Archaeological Quality

Intrinsic archaeological quality involves those characteristics of the scenic byway's corridor that are physical evidence of historic or prehistoric human life or activity and are visible and capable of being inventoried and interpreted. The scenic byway corridor's archeological interest, as identified through ruins, artifacts, structural remains and other physical evidence have scientific significance that educate the viewer and foster an appreciation for the past. (United States Government Federal Register 26761, 1995).

What do we know?

Archeological studies show that portions of the Loess Hills have been continuously occupied for 12,000 years (Tiffany, 1986, 158). The archeological record of the Loess Hills has been categorized into a series of cultures, namely Paleo-Indian (+12,000 to 8,000 years before present), Archaic (8,000 to 2,500 years before present), Woodland (2,500 to 1,200 years before present) and the Late Prehistoric (1,200 years before present to the time of Euro-American settlement in the early 1800s). Natural resources used to sustain populations, as well as the tools and methods of human organization required to utilize these resources are the basis for differentiating these cultures (Thompson et al 6, 1984).



Karl Bodmer



Artist recreation of Loess Hills earthlodge site—Office of the State Archaeologist

The Paleo-Indian, Archaic and Woodland cultures that inhabited the Loess Hills for more than 10,000 years were primarily nomadic hunters and gatherers. Evidence of their existence in the Loess Hills has been well established by artifacts and human remains found at a number of sites. Among the most well-known and studied of these archeological sites are the Turin site in Monona County (Archaic Culture) and Rainbow site in Plymouth County (Woodland Culture).

Permanent human settlements first appeared in the Loess Hills less than 1,000 years ago. Three predominately farming cultures inhabited the region between about AD 900 and 1300. The Glenwood, Great Oasis and Mill Creek Cultures evolved independently with distinctive characteristics. All three, however, constructed partially buried permanent dwellings out of logs and dirt. In many cases, these earth lodges were clustered into village groups. Numerous archeological sites of the Great Oasis and Mill Creek Cultures are located in the northernmost portions of the Loess Hills. Glenwood Culture sites are concentrated along Pony Creek, Keg Creek and smaller tributaries of the Missouri River in Mills County (Mutel 42-53. 1989). "Of the more than 1,500 archaeological sites currently inventoried across the seven Loess Hills counties over 300 are earthlodge dwellings; prehistoric residential sites antecedent to the nineteenth century Plains earthlodges."

What the cliff dwellings of the ancestral Pueblo peoples are to Southwestern archaeology, the earthlodges of the ancestral Plains Villagers are to Midwest and Plains archaeology – the seminal moment for the emergency of the first farming-based sedentary societies across North America. Today, archaeologists estimate that as many as 1,000 earthlodge dwellings once covered the hills and valleys in the southern Glenwood locality, all within a ten-mile radius of the confluence of the Platte and Missouri rivers” (Archaeological Resources and National Significance of the Loess Hills National Scenic Byway 1, 2008).

The Loess Hills had few permanent or long-term residents from about 1300 to the arrival of Euro-Americans in the early 1800s. During this period a number of Indian tribes traveled the Loess Hills and used the region primarily as a hunting ground. These tribes included the Oneota, Ioway, Oto, Omaha, Missouri, Osage and Dakota Sioux (Mutel 53-56, 1989).

Representative Archeological Resources in the Loess Hills National Scenic Byway Corridor

There are specific resources in the Loess Hills that are most representative of the intrinsic archeological quality of this region. Those resources that best depict the unique archeological quality of the Scenic Byway Corridor are:

Critical Resource Areas: The Office of the State Archeologist of Iowa has recorded the location of archeological resources in 496 of the more than 1,200 square miles in the Loess Hills. These resources are representative of each of the cultures believed to have inhabited the Loess Hills and include artifacts, burial sites and habitations. The number and distribution of sites indicate the widespread presence of archeological resources in the Scenic Byway Corridor. Knowledge about the location and type of archeological resources in the Loess Hills can help ensure their protection and encourage a greater interest in their further study and interpretation. The Office of the State Archeologist of Iowa can provide more information regarding archeological resources in the Loess Hills.

- **Glenwood Culture Earth Lodge and Collections:** The Loess Hills surrounding the City of Glenwood have provided archeologists with a wealth of information about the Glenwood Culture, more correctly identified as a member of the Nebraska Culture of the Central Plains Tradition. Numerous earth lodge sites and artifacts of the Glenwood Culture have been located in this region of the Loess Hills. These sites

and artifacts have been the subject of extensive study by archeologists. A collection of artifacts are exhibited at the Mills County Historical Museum in Glenwood. A recreated earth lodge was sited on the Mills County Historical Museum campus until 2015, when it was deconstructed and burned due to deterioration.



Turin Burial Site
D. Poggensee

- **Turin Burial Site:** The Turin Burial Site contained four skeletal remains of humans believed to be of the Archaic Indian Culture. The site also contained a large number of artifacts. Discovered in 1955, the site was originally thought to contain the oldest known human remains in North America. Although further study proved this not to be the case, the human remains found at the Turin Burial site are the oldest known in Iowa. Archeologists consider the Turin Burial site to be of significance due to its contribution to a greater understanding of the Archaic Culture about which very little is known.
- **Blood Run National Historic Landmark:** Blood Run National Historic Landmark is located in Lyon County north of the Loess Hills. The Blood Run site appears to have been a ceremonial, social and trade center for the Oneonta Indian Culture and their successors from about AD 1200 to 1700. Over 100 burial mounds, effigy earthwork, house sites and numerous artifacts have been located on the more than 600-acre site. National Historic Landmark designation for Blood Run recognizes the site’s unique contribution to a greater understanding of the relatively unknown Indian Cultures that once dominated the upper Midwest.

Loess Hills Findings Set Stage for NAGPRA

“Inadvertent discoveries of human remains in three locations in the Loess Hills in the early 1970s propelled Iowa into being the first state in the nation to pass laws that provide legal protection for all human remains regardless of age or origin found on public or private land, and for the reburial of native Indian remains. These three sites became focal points instrumental to the enacting of changes in the Iowa legal code and creating of precedent that led to similar legal changes in other states, ultimately presaging the 1990 passage of the federal Native American Graves Protection and Repatriation Act (NAGPRA).

In the early 1970s, extensive archaeological investigations were undertaken as part of U.S. 34 highway work in the Glenwood area, crossing east-west through the Loess Hills. Several graves were encountered at one site; the graves of Euroamerican settlers were disinterred and immediately reinterred in a nearby cemetery, but the grave of an American Indian was boxed up and shipped to Iowa City for study, along with artifacts from the project. Outrage over this incident spurred Maria Pearson (Running Moccasins), Yankton Sioux, to become an active vocal advocate for Indian rights and burial protection for the next three decades, not just within Iowa, but also nationally and internationally. Support from the Iowa Governor and overwhelming public support led to a precedent that both Indian and archaeologists would eventually agree upon, that the remains of Native Americans should be treated in the same fashion as non-Indians. This concept would eventually become the heart of Iowa’s burial laws” (Archaeological Resources and National Significance of the Loess Hills National Scenic Byway 13, 2008).

Maps and Tables

Archaeological Resources - Map

What needs to be done?

The contribution that archeological resources make to the unique character of the Loess Hills National Scenic Byway Corridor is significant. The presence of a wealth of archeological resources in the Loess Hills is well documented. At the same time, much remains to be done in order to encourage a greater appreciation for the archeological quality of the Scenic Byway Corridor. Specific actions included in the “Corridor Development Actions,” section of the Corridor Management Plan will address the need to:

- Increase the public’s enjoyment and understanding of the archeological quality of the Loess Hills National Scenic Byway Corridor by promoting, improving access to and providing information about, archeological resources; and
- Continue to identify, research, interpret and obtain national recognition for resources that contribute to the archeological quality of the Scenic Byway Corridor.



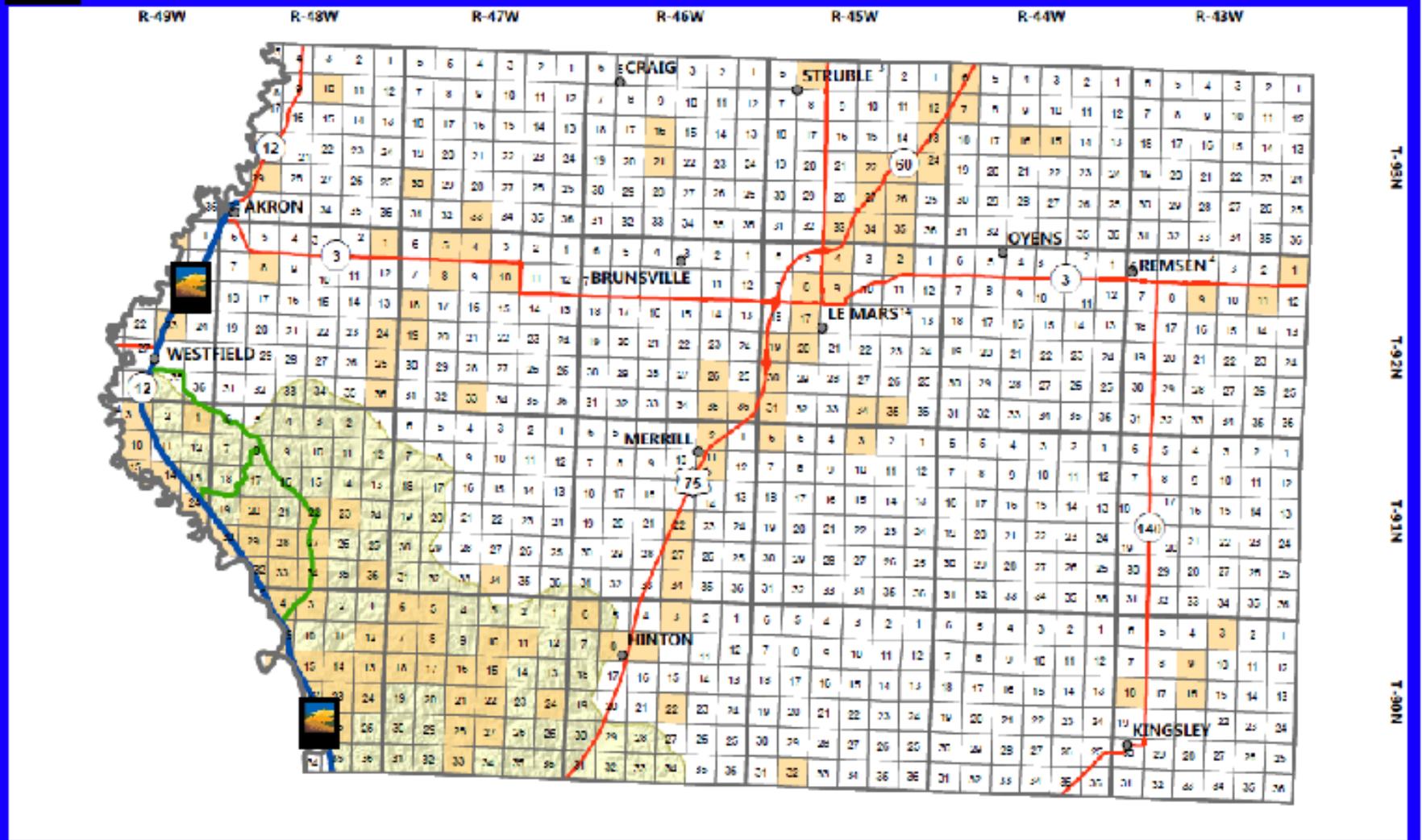
Archaeological field school—Loess Hills



Archaeological Resources Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Archaeological Resource Present
- Township Line
- Section Line



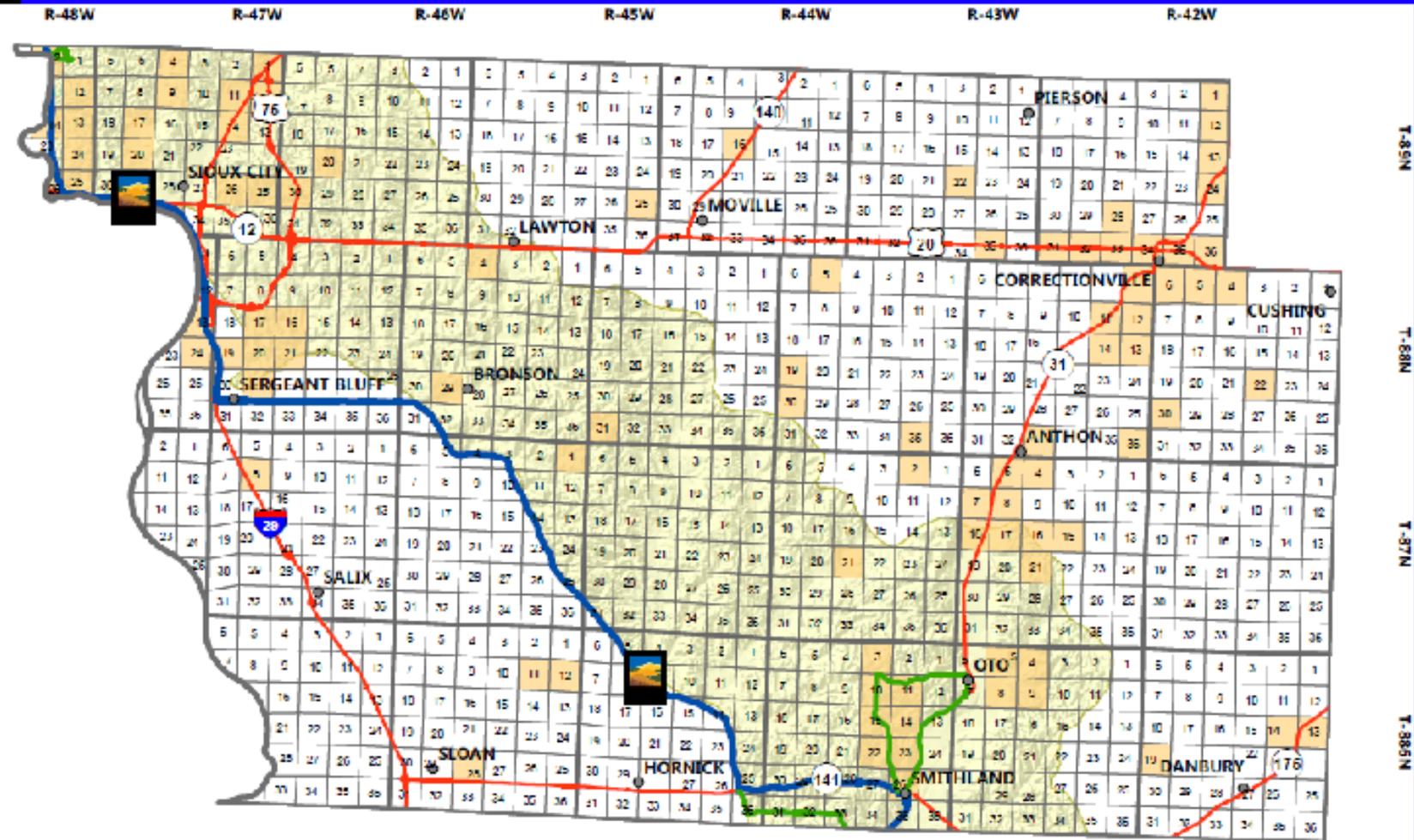


Archaeological Resources

Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Loess Hills Landform Region
-  Archaeological Resource Present
-  Township Line
-  Section Line

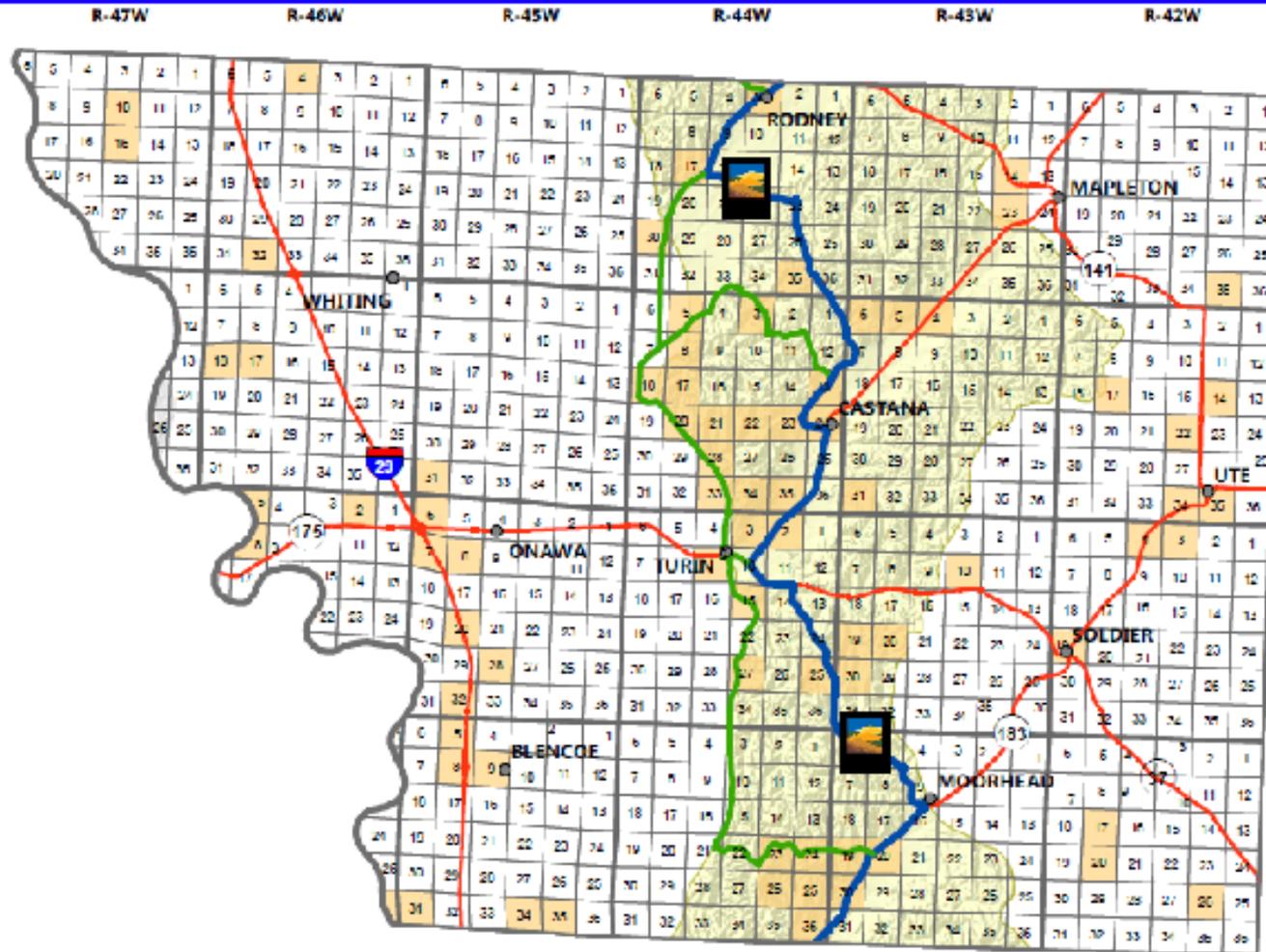




Archaeological Resources Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Archaeological Resource Present
- Township Line
- Section Line

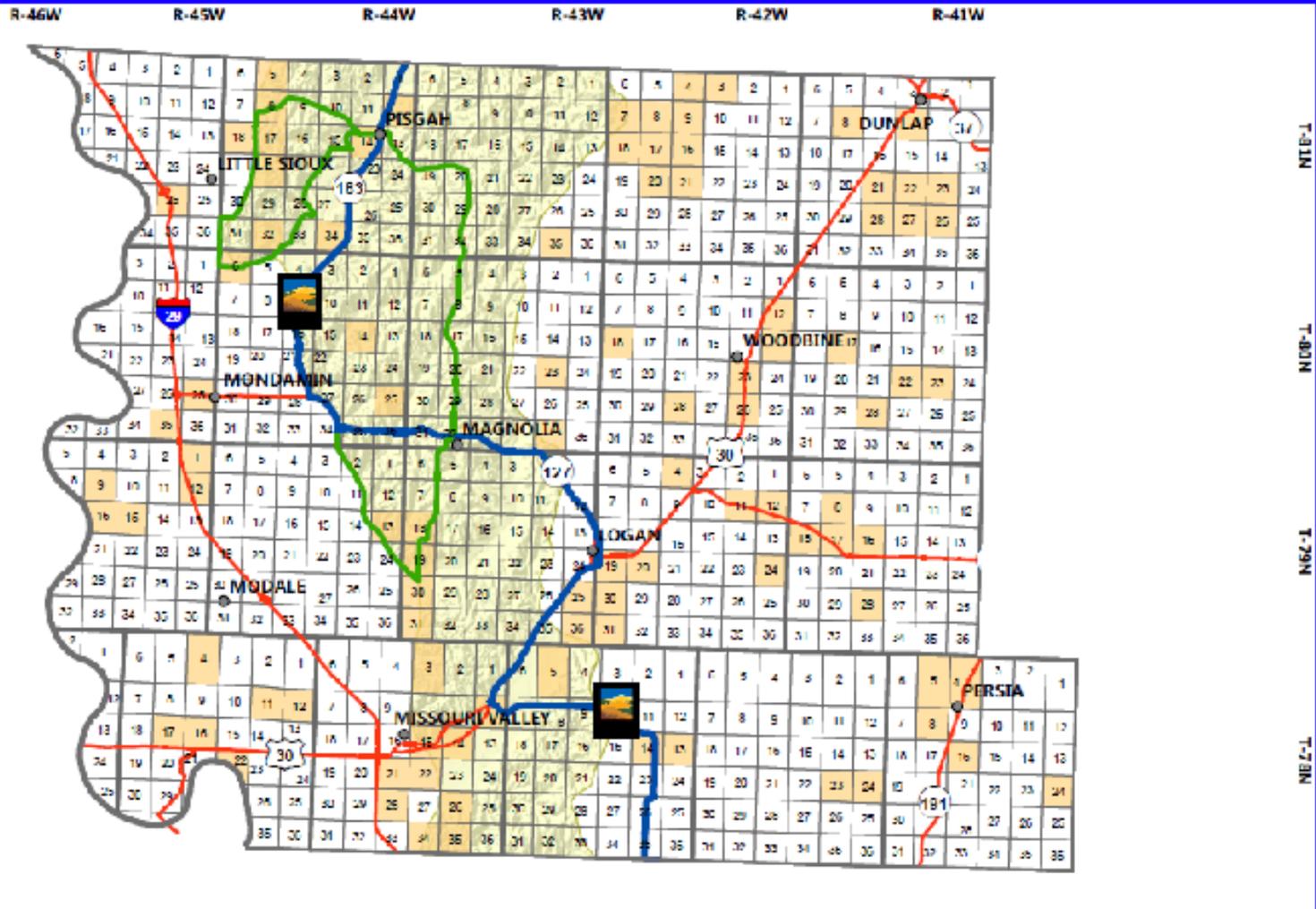




Archaeological Resources Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Polk/Wattawake County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landforms Region
- Archaeological Resource Present
- Township Line
- Section Line



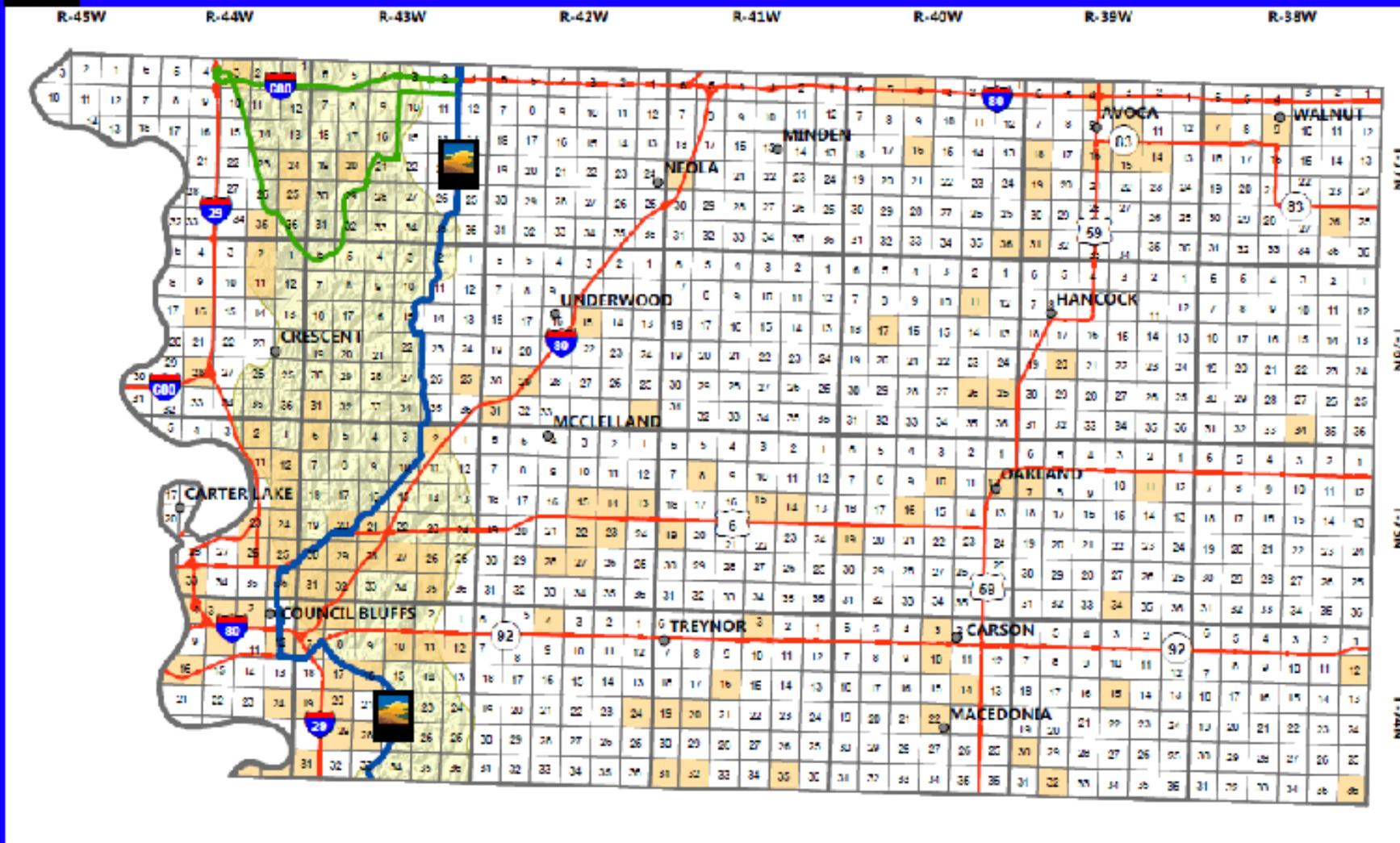


Archaeological Resources

Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Sources: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Archaeological Resource Present
- Township Line
- Section Line

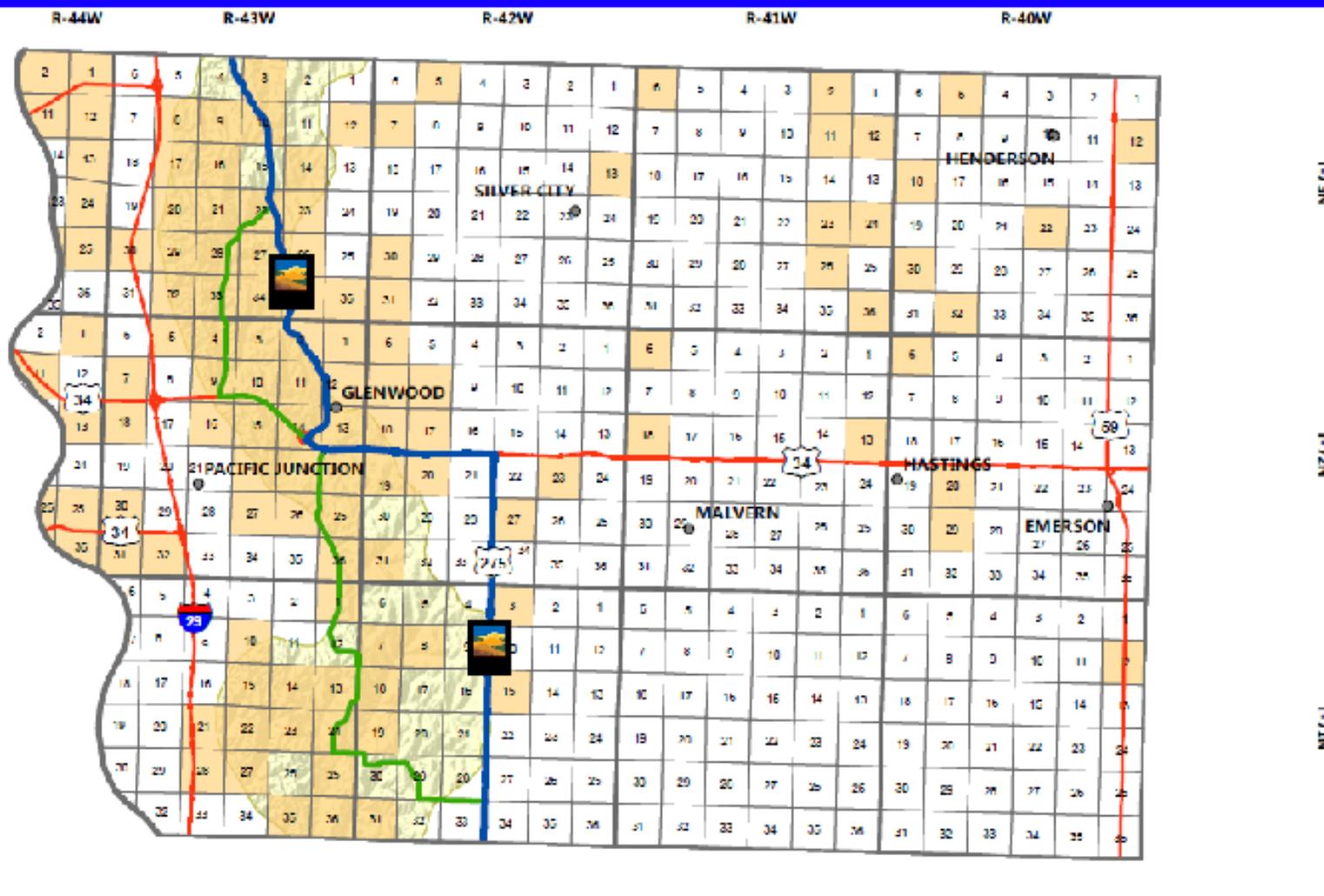




Archaeological Resources Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Archaeological Resource Present
Loess Hills Scenic Byway Loop	Township Line
Loess Hills Landform Region	Section Line

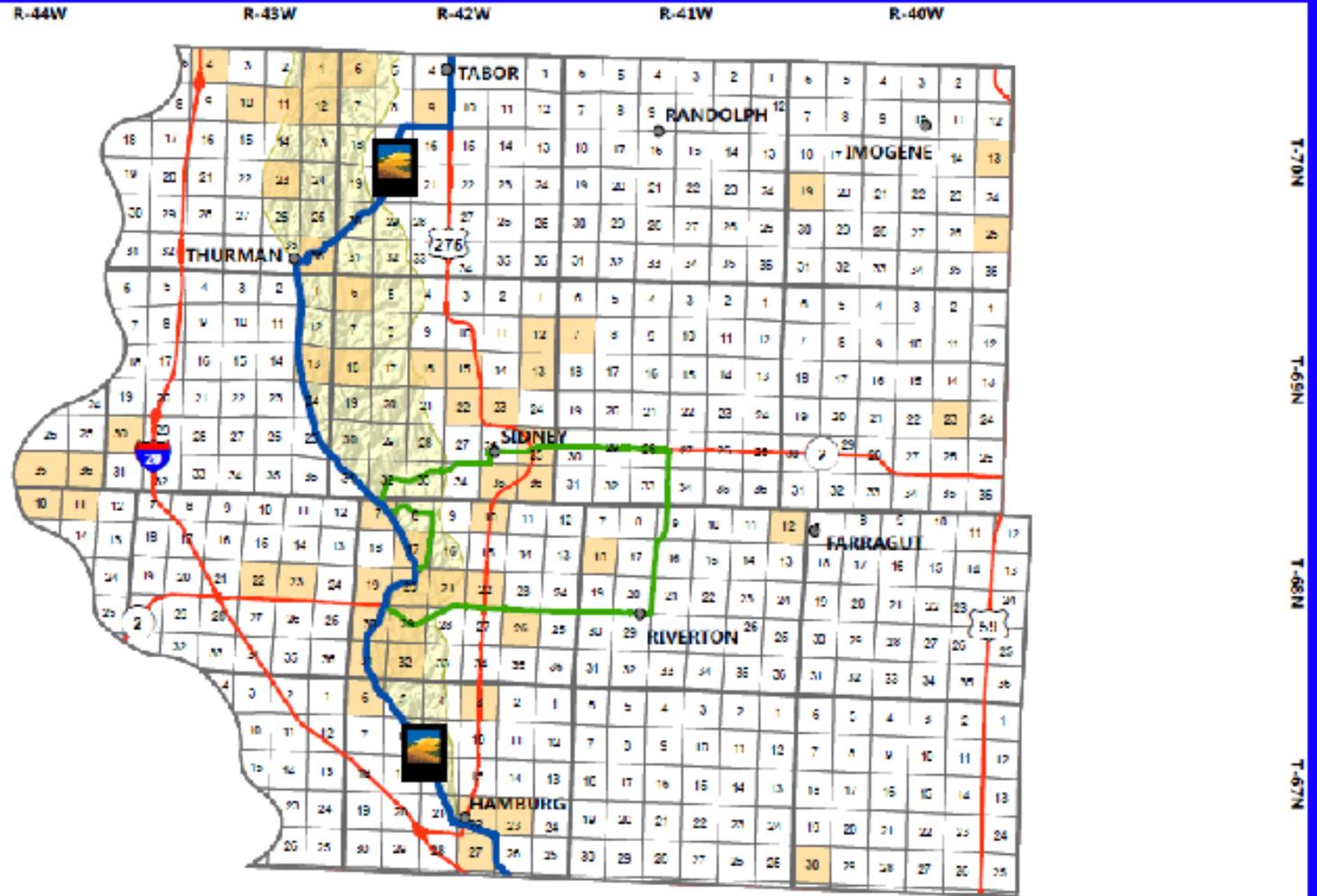




Archaeological Resources Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Sources: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Archaeological Resource Present
- Township Line
- Section Line



Understanding Scenic Quality

Definition of Scenic Quality

The intrinsic quality of scenery is defined as the heightened visual experience derived from the view of natural and human made elements of the visual environment of the scenic byway corridor. Scenic quality refers to the characteristics of the landscape that are strikingly distinct and offer a pleasing and most memorable visual impression. All elements of the landscape including landform, water, vegetation and human-made development— contribute to the intrinsic quality of the corridor’s visual environment (U.S. Government Federal Register 26761, 1995).

What do we know?

The scenic qualities of the Loess Hills are widely recognized as one of the Scenic Byway Corridor’s most distinguishing features. Traveling along the western edge of the Loess Hills, one enjoys spectacular views of this unusual landform as the bluffs rise up out of the river valley’s easterly edge. Equally breathtaking are views from within the landform that extend out over the vast Missouri River flood plain and across the ridge tops of rolling loess topography. Viewing the fall colors of native prairie and hardwood forests in the Loess Hills is among the most popular attractions for travelers.

In addition to remarkable natural features, human activities are important components of scenic quality in the Loess Hills. Farmsteads are nestled in valleys; historic churches, one-room schoolhouses and pioneer cemeteries dot the countryside; fields of cultivated crops form intricate patterns on the land; and narrow, winding roadways connect small, rural communities. This mixture of human-made resources contribute to a scenic quality which is unique to the Loess Hills.

A comprehensive assessment of scenic resources in the Loess Hills was an important exercise in selecting roadways to be part of the Scenic Byway. A more complete understanding of specific landscape elements that contribute to scenic quality in the Byway Corridor provides guidance for the location and management of public amenities and the application of land use strategies. Knowledge of scenic quality has been developed through public preference testing, visual perception studies and viewshed mapping.

Public Preference Testing

A comprehensive analysis of visual resources was performed to help select the roadways that are part of the Loess Hills National Scenic Byway. Public preference testing of scenic values was used to develop general criteria about scenic quality in the Loess Hills’ landscape. The following statements summarize those values:

- Landscape scenes were preferred with an average or high amount of variety in the land cover and surface elements;
- Landscape scenes were preferred with an average or long sight distance, particularly overviews or vistas; and
- Landscape scenes were preferred with an average or high sense of belonging together.

The selection of Loess Hills National Scenic Byway routes was based on connecting the areas within the Corridor where these preferred view types were most dominant in the landscape.



Hitchcock Nature Center, Pottawattamie County

Ken West

Visual Perception Studies

Visual perception studies performed during development of the Corridor Management Plan provided a detailed assessment of scenic quality in the Byway Corridor. The visual perception studies identified specific scenic resources, or landscape elements, that travelers in the Loess Hills found “most”, and “least”, appealing.

As with the public preference tests conducted during establishment of the Scenic Byway, visual perception studies utilized photographs of scenes in the Loess Hills and asked residents and visitors about their likes and dislikes. Additionally, travelers were given cameras to take photographs of views in the Loess Hills that they found particularly pleasing, as well as scenes that detracted from their visual experience.

The visual perception studies determined that people generally preferred seeing the following features in the Loess Hills landscape:

- Native prairie vegetation in the foreground or right-of-way;
- Water present as a stream, lake, or wetland;
- A combination of two or three of the following land covers: forest, prairie, and grassland;
- Juxtaposition in the landform of extreme western edge (steepest topography) to inner landform (moderately rolling topography);
- Overview or mid-level view of the landscape;
- Ridgeline, if present, is undeveloped and unobstructed;
- Proximity to critical resource areas or public recreation areas;
- Landscape views with minimal or no development;
- Sense of enclosure either from vegetation or the landform;
- Roadways, if present, with a curving alignment and narrow pavement width; and
- Exposed vertical cuts of loess deposits in the landscape.

Maps

Byway Viewshed and Scenic Overlook Inventory

Results of the visual perception studies provides guidance for the location and management of new and existing visitor amenities. Knowledge of the specific landscape elements that contribute to scenic quality in the Byway Corridor is also important information for the development and application of land use strategies.

Viewshed Mapping

Viewshed mapping for the Loess Hills National Scenic Byway Corridor was performed during development of the Corridor Management Plan. A viewshed is a quantitative measure of distance seen from a given point on the Scenic Byway.

Viewshed maps, together with qualitative assessments of scenic resources such as the results of visual perception studies, provides additional guidance for the location and management of developed site facilities, or amenities. Similarly, viewshed maps will assist with the development and implementation of land use strategies designed to preserve and enhance the scenic quality of the Corridor.

What needs to be done?

Scenic quality in the Byway Corridor is comprised of the unique combination of natural, historic, cultural, archeological and recreational resources in the Loess Hills. As such, understanding and enjoying this scenic quality will contribute to a greater awareness of, and appreciation for, the Corridor’s other special qualities. Implementation of specific actions included in “Corridor Development Actions” section of the Corridor Management Plan, will:

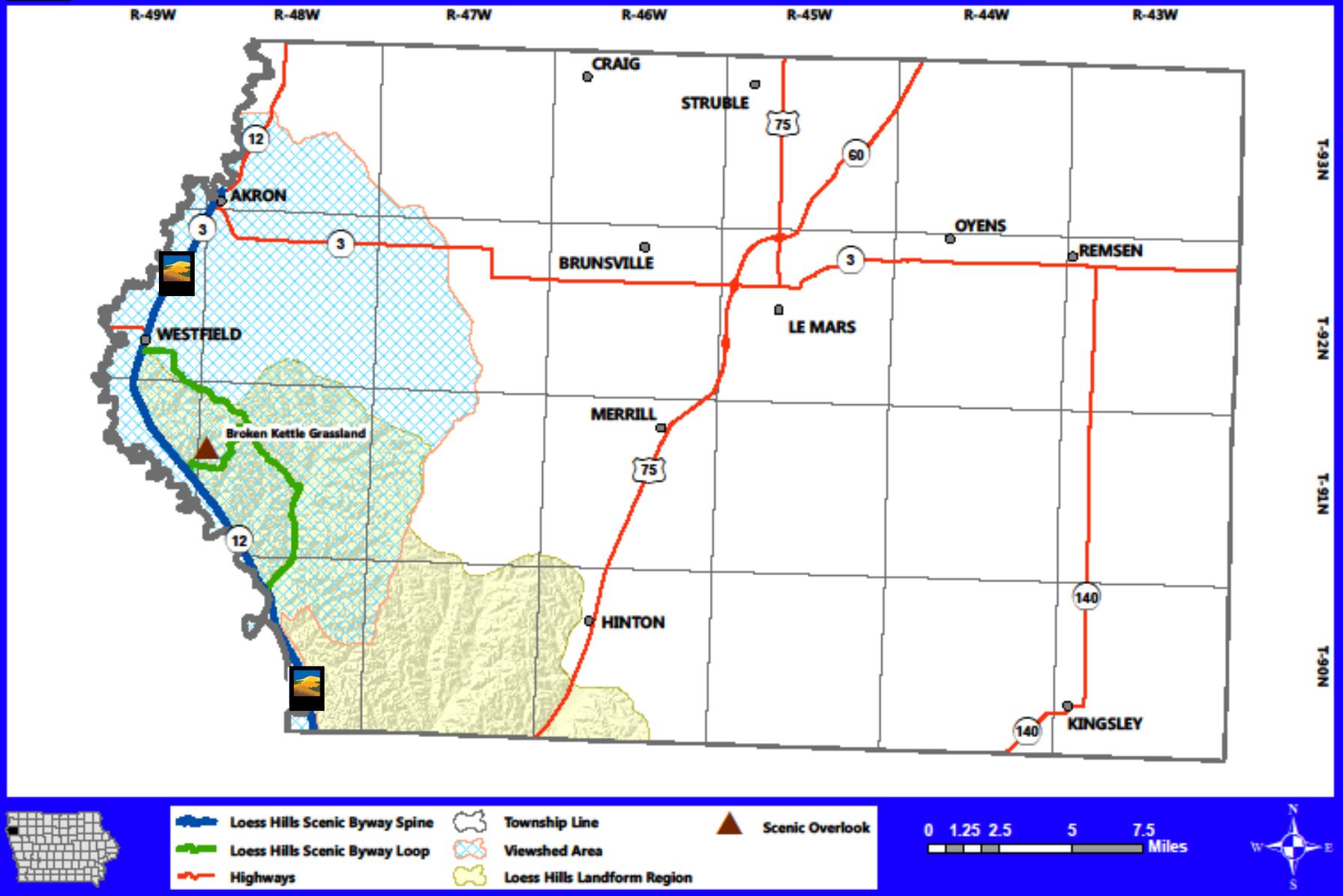
- Increase and improve opportunities for the public to view and appreciate those resources that contribute to the Loess Hills National Scenic Byway Corridor’s scenic quality; and
- Protect and enhance areas that possess resources representative of the Scenic Byway Corridor’s scenic quality.



Byway Viewshed and Scenic Overlook Inventory Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



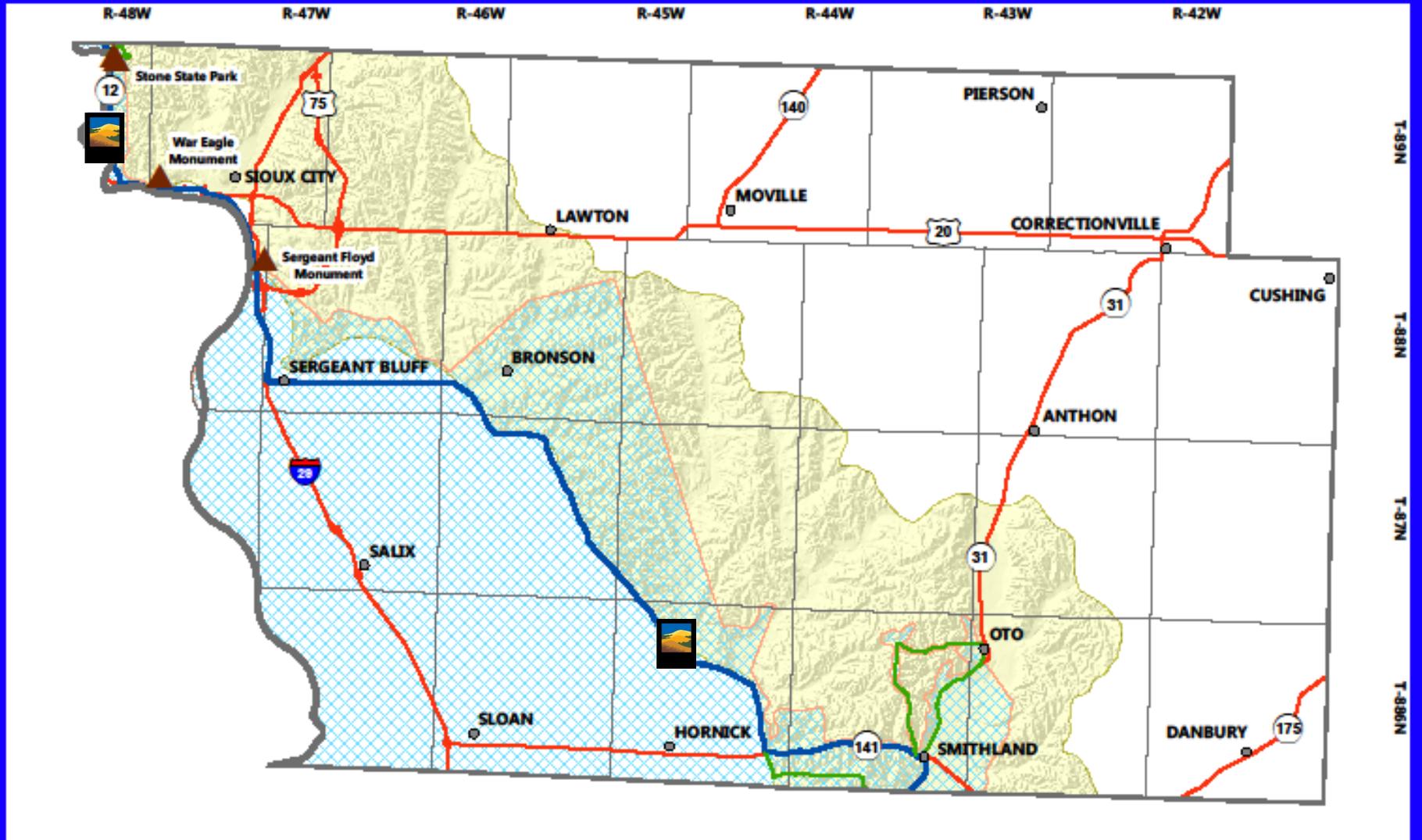


Byway Viewshed and Scenic Overlook Inventory

Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- | | | |
|--------------------------------|-----------------------------|-----------------|
| Loess Hills Scenic Byway Spine | Township Line | Scenic Overlook |
| Loess Hills Scenic Byway Loop | Viewshed Area | |
| Highways | Loess Hills Landform Region | |

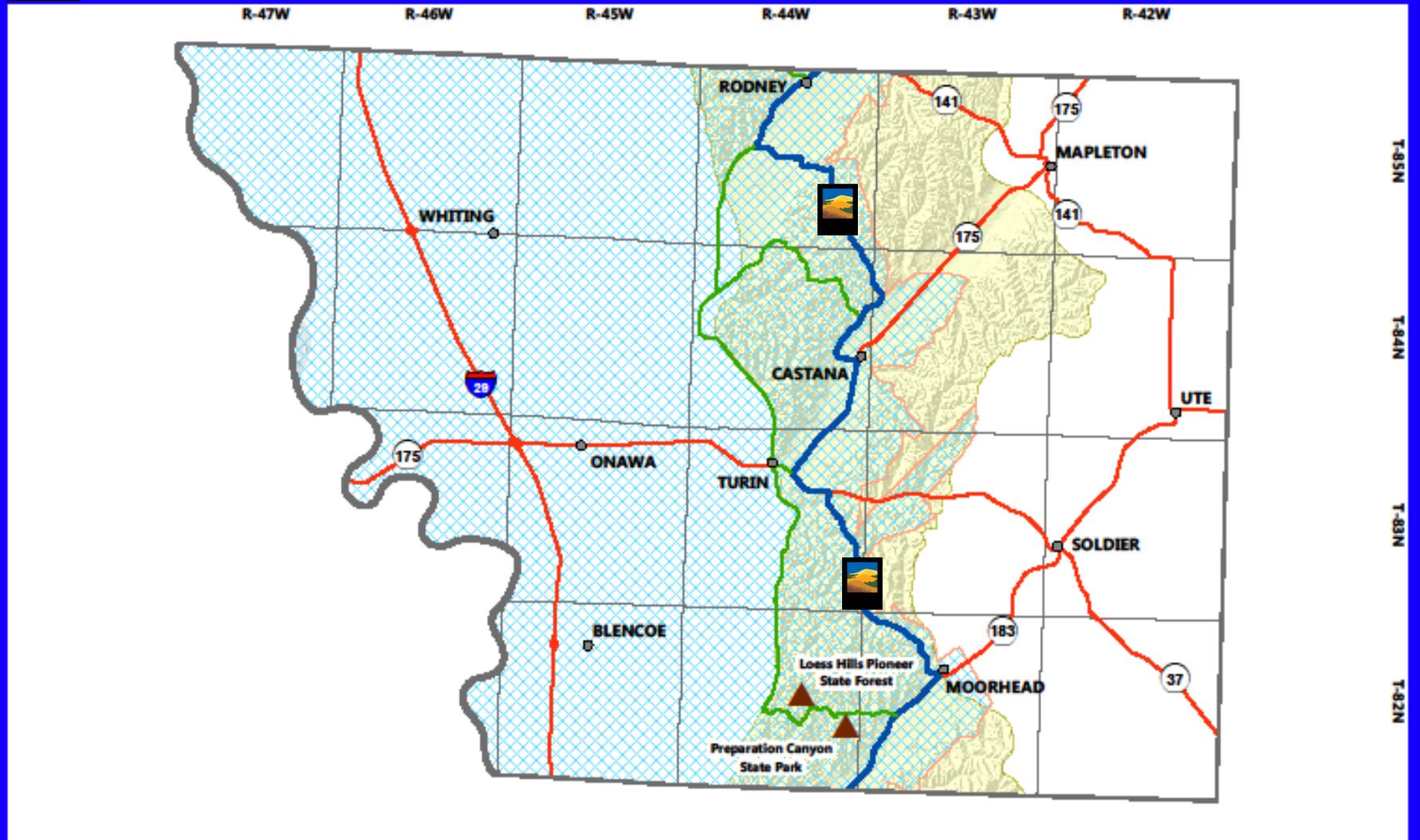




Byway Viewshed and Scenic Overlook Inventory Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Township Line	Scenic Overlook
Loess Hills Scenic Byway Loop	Viewshed Area	
Highways	Loess Hills Landform Region	

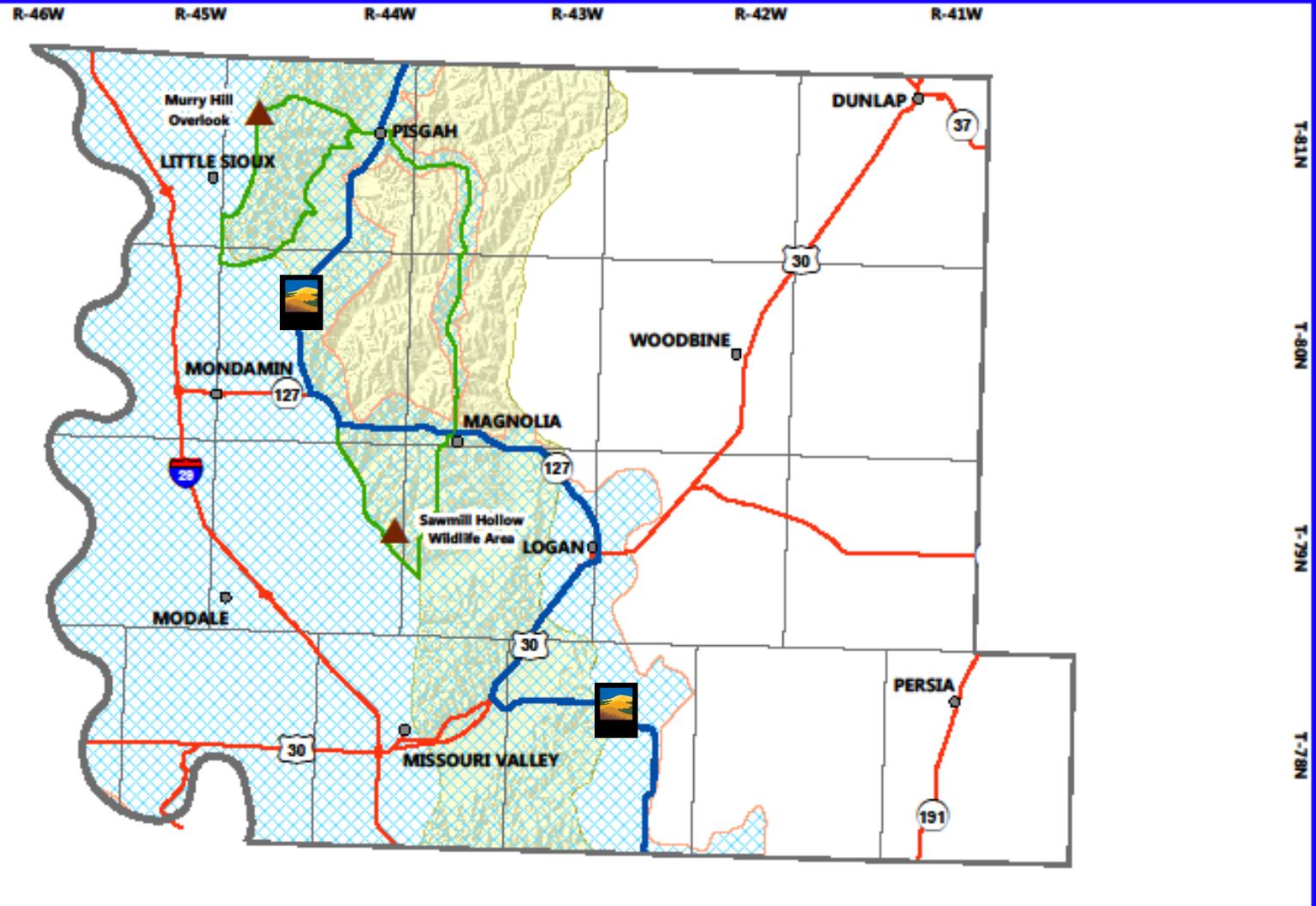




Byway Viewshed and Scenic Overlook Inventory Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Township Line	Scenic Overlook
Loess Hills Scenic Byway Loop	Viewshed Area	
Highways	Loess Hills Landform Region	

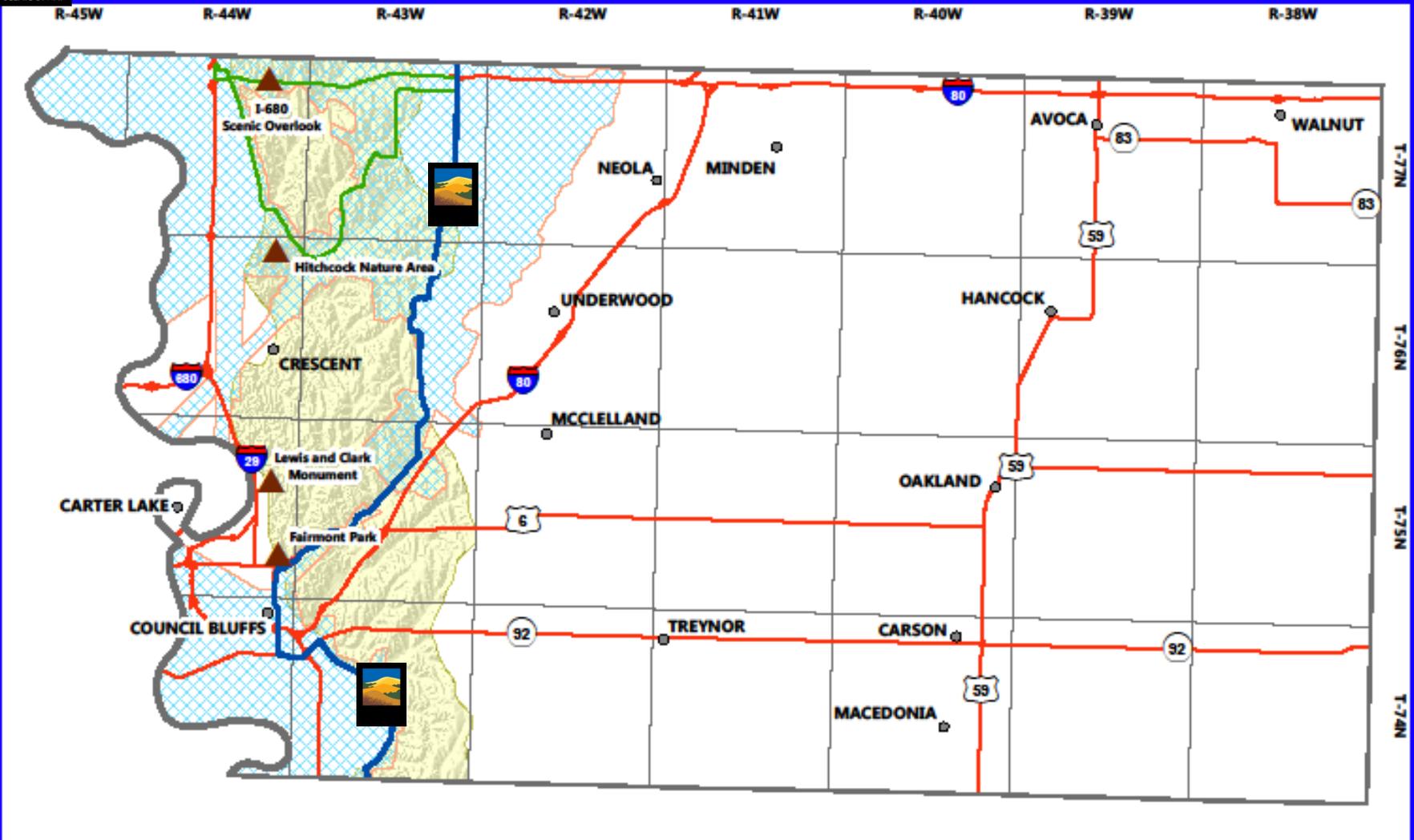




Byway Viewshed and Scenic Overlook Inventory Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Township Line	Scenic Overlook
Loess Hills Scenic Byway Loop	Viewshed Area	
Highways	Loess Hills Landform Region	



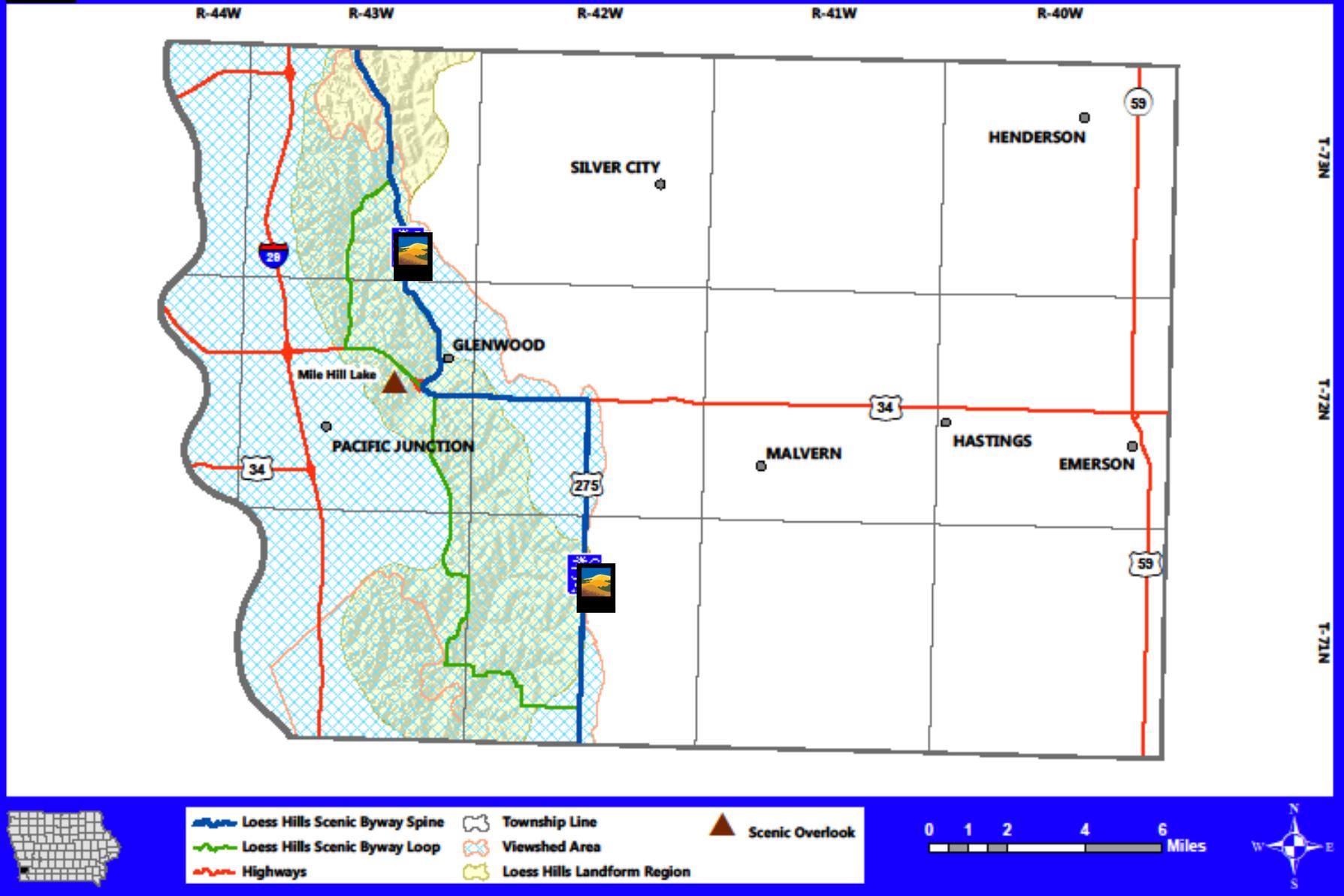


Byway Viewshed and Scenic Overlook Inventory

Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

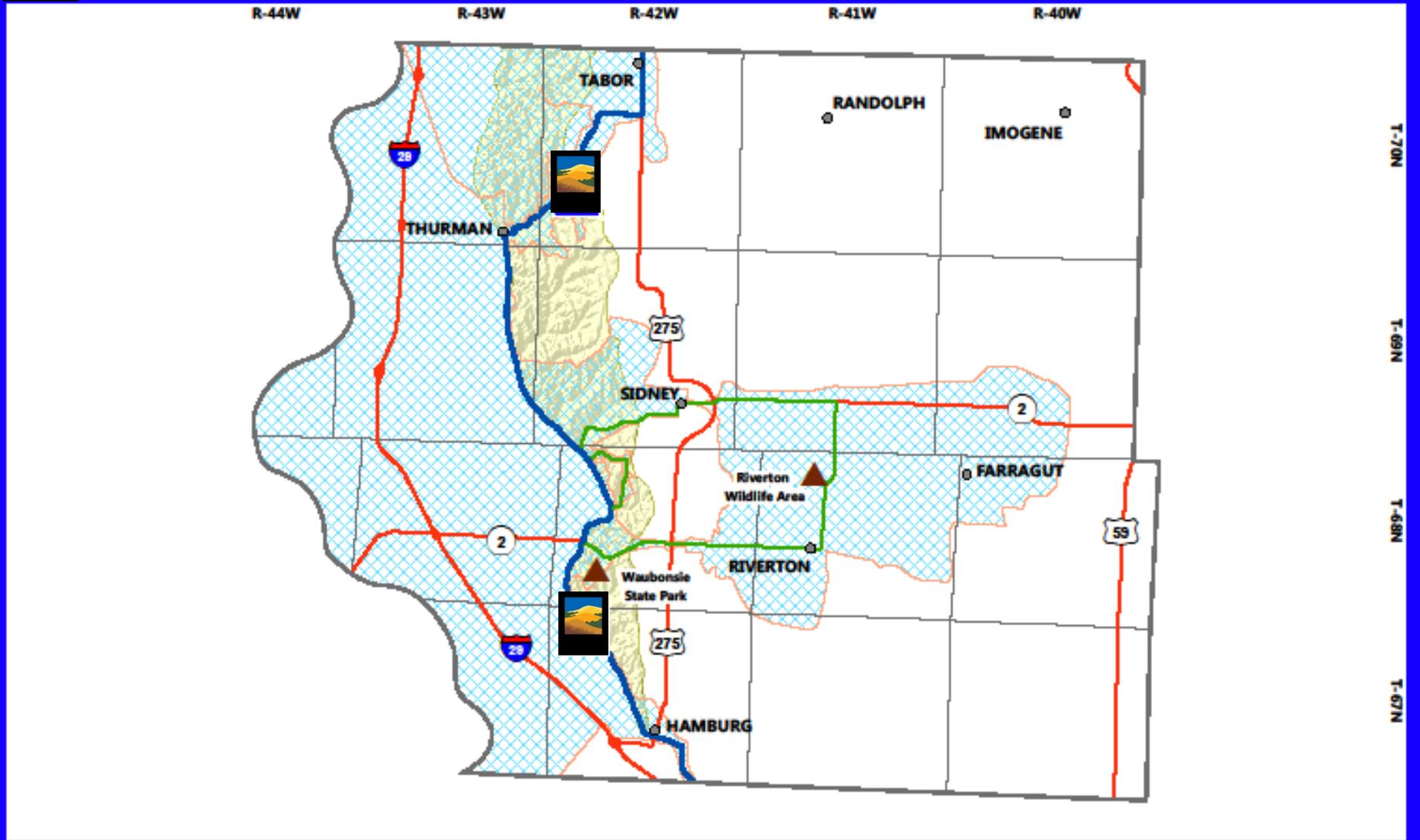




Byway Viewshed and Scenic Overlook Inventory Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

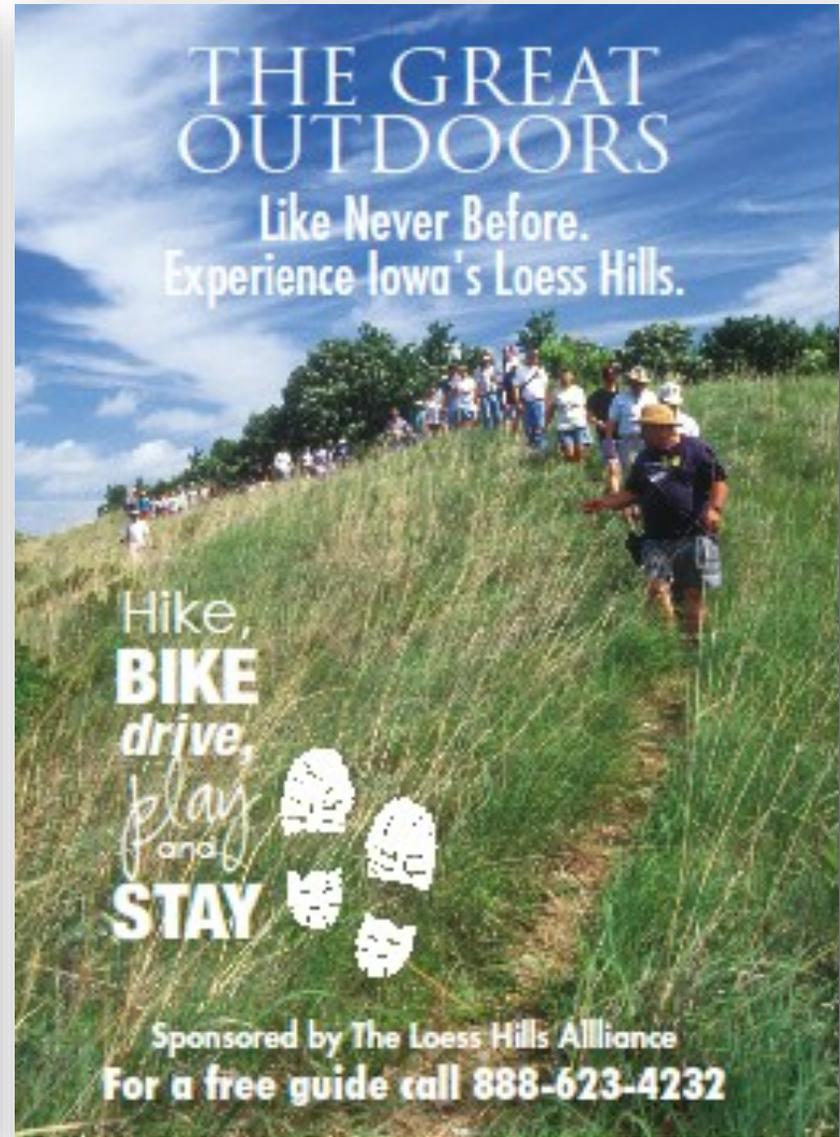


- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Township Line
- Viewshed Area
- Loess Hills Landform Region
- Scenic Overlook





Loess Hills Prairie Seminar Ridge Hike D. Poggensee



Understanding the Historic Quality

Definition of Historic Quality

Historic quality encompasses legacies of the past that are distinctly associated with physical elements of the landscape, whether natural or human made, that are of such historic significance that they educate the viewer and stir an appreciation for the past. The historic elements reflect the actions of people and may include buildings, settlement patterns and other examples of human activity. Historic features can be inventoried, mapped and interpreted. They possess integrity of location, design, setting, material, workmanship, feeling and association. (United States Government Federal Register 26761, 1995).

What do we know?

Humans arrived in the Loess Hills region just as major loess deposition was ending, about 12,000 years ago (Mutel 32, 1986). Prior to Euro-American presence in the region, the Loess Hills was a hunting ground and home for several Native American, or Indian, cultures (Bonney 86, 1986). The region's earliest inhabitants were members of these prehistoric and early historic cultures including the Paleo, Archaic and Woodland Indians; Great Oasis, Mill Creek and Glenwood people; and Oneota, Ioway, Omaha, Sioux and Potawatomi tribes.

The first written records for the region surrounding the Loess Hills predate the Lewis and Clark expedition journals by about a century and were recorded by French traders and explorers in the early 1700s. (Mutel 54, 1989). During their famous expedition, Lewis and Clark recorded in their journals descriptions and reactions to the remarkable loess bluffs and hills. Artists, such as George Catlin and Karl Bodmer, visually recorded the high bluffs and strangely eroded banks along the winding Missouri River in their drawings and paintings (Mutel xvi, 1994).

Euro-American settlement of the region that followed took place slowly until 1846 when the Mormons started their migration toward the Great Salt Lake Valley. After that, permanent settlement of the Loess Hills region occurred rapidly as towns developed to serve the needs of a growing farm population (Mutel 54, 60, 1989).

Dramatic changes to the Loess Hills landscape resulted from the agricultural activities, urban development and construction of transportation routes that



Harrison County Museum & Welcome Center

Ken West

accompanied the region's settlement. The distribution and abundance of many plant and animal species native to the Loess Hills were greatly reduced. Physical impacts to the Loess Hills region took place as the erosion of farmland occurred; limestone, shale and gravel mines were excavated; fill dirt for construction was removed; and streams were straightened to reduce flooding in river valleys.

Representative Historic Resources of the Loess Hills National Scenic Byway Corridor

There are specific resources in the Loess Hills that are most representative of the intrinsic historic quality of this region. Those resources that best depict the historic quality of the Scenic Byway Corridor are:

- **National Historic Landmarks:** The National Park Service has designated four historic resources in the Scenic Byway Corridor as National Historic Landmarks. National Historic Landmarks are recognized as the Nation's most important historic and cultural resources. They are buildings, historic districts, structures, sites and objects that possess exceptional value or quality in illustrating or interpreting the heritage of the United States.

- Four National Historic Landmarks are located in the Loess Hills National Scenic Byway Corridor: the **General Dodge House** in Council Bluffs and the **Sergeant Floyd Monument, Sergeant Floyd Riverboat, and Woodbury County Courthouse**, all three in Sioux City. The **Reverend John Todd House Museum** in Tabor, currently listed on the National Register for Historic Places as a stop along the Underground Railroad, is in the process of applying to become a National Historic Landmark.
- **National Register of Historic Places Sites:** There are 65 resources in the Scenic Byway Corridor listed on the National Register of Historic Places. Placement on the Register recognizes these resources for their significance in American history, architecture, archaeology, engineering and culture. These resources contribute to an understanding of the historical and cultural foundations of the nation in general and the Loess hills region in particular. Resources in the Corridor on the register include the **Todd House Museum** in Tabor, a restored Underground Railroad station; **Carstens' Memorial Farmstead**, an 1800s restored farm; the **Haymarket Commercial District** in Council Bluffs; and **county courthouses** in Fremont, Harrison, Monona, Woodbury and Plymouth Counties. The number and variety of sites on the National Register illustrates the richness of historic resources in the Scenic Byway Corridor.
- **Bertrand Steamboat Museum, DeSoto National Wildlife Refuge:** Features and events that illustrate the important role of the Missouri River in the nation's history are an integral part of the historic quality of the Loess Hills National Scenic Byway Corridor. The Bertrand Steamboat Museum interprets the historic significance of the Missouri River steamboat era in the settlement and development of the United States west of the Mississippi River. The thousands of artifacts recovered from the sunken 1860-era sternwheeler Bertrand exhibited at the museum provide a detailed picture of Midwestern life in the mid-19th century. The site of the Bertrand's discovery and excavation is also located on the Refuge.
- **National Historic Trails and the National Western Historic Trails Center:** Four National Park Service designated National Historic Trails travel through portions of the Loess Hills National Scenic Byway Corridor. National Historic Trails recognize the historical significance of the people and events associated with them from a national perspective. Location of the **Mormon Pioneer, Lewis and Clark, Oregon and California National Historic Trails** in the Corridor is evidence of the extraordinarily important role that western Iowa and the Loess Hills region have played in the nation's history. **The National Western Historical Trails Center** in Council Bluffs is the only facility of its type in the United States dedicated to interpreting America's westward migration and, specifically, these National Historic Trails.

What needs to be done?

National recognition for many of the resources in the Scenic Byway Corridor confirms the exceptional quality of historic features and events in the Loess Hills. As much as the natural and scenic qualities it possesses, the rich intrinsic historic quality of the Corridor contributes to the region's unique character and attractiveness to the traveling public. Specific actions included in the "Corridor Development Actions" section of the Corridor Management Plan will address the need to:

- Increase the public's enjoyment and understanding of, and improve their access to, resources that comprise the historic quality of the Loess Hills National Scenic Byway Corridor;
- Continue to identify, research, interpret, promote and obtain national recognition for features and events that contribute to the historic quality of the Scenic Byway Corridor; and
- Utilize diverse types of communication media to tell the history of the Scenic Byway Corridor.

Maps and Tables

National Historic Landmarks - Map

Historical Resources - Map

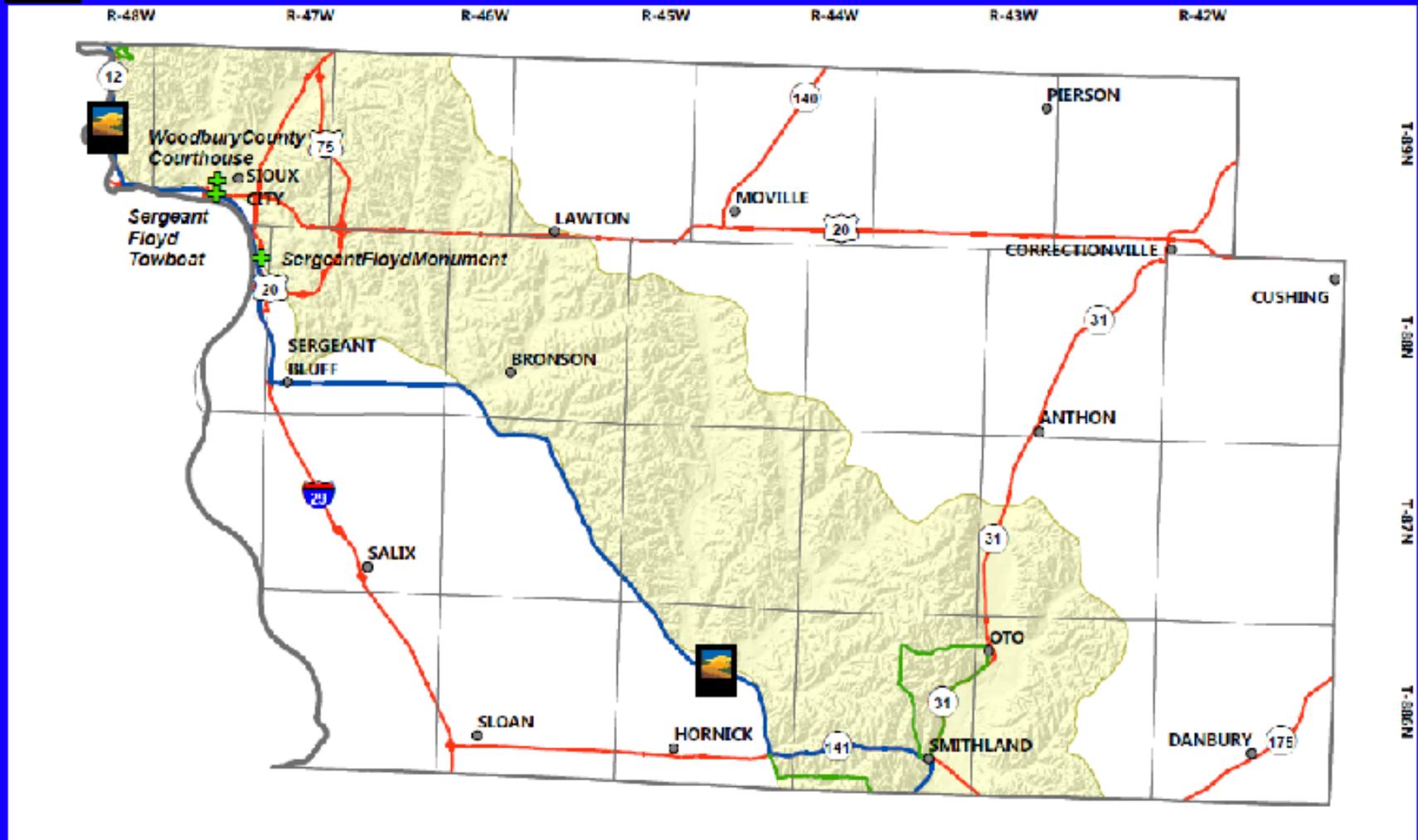
Historical Sites - Table



National Historic Landmarks Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pettawattamie County GIS Department



- National Historic Landmarks
- Loess Hills Scenic Byway Spine
- Township Line
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Highways

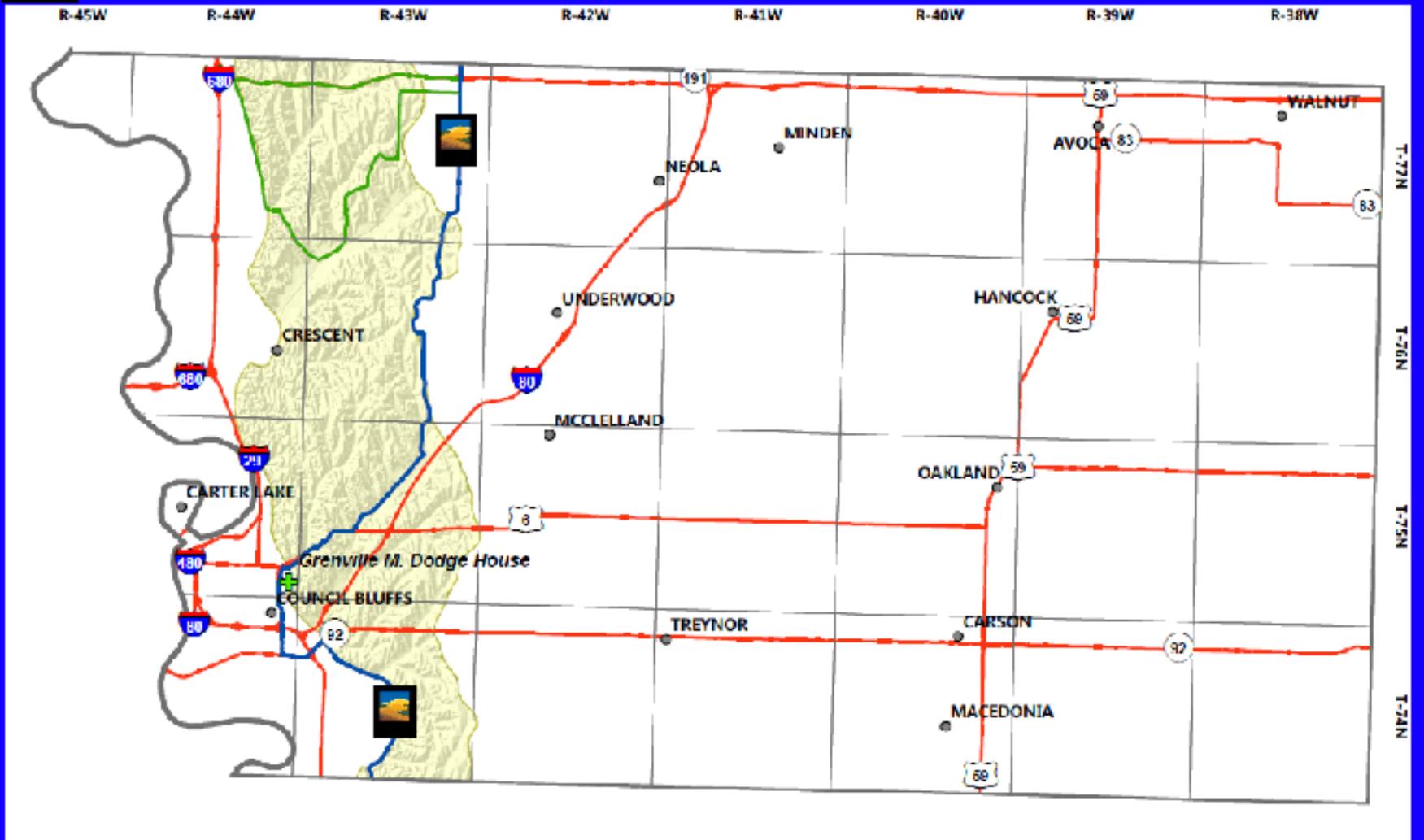




National Historic Landmarks Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- National Historic Landmarks
- Loess Hills Scenic Byway Spine
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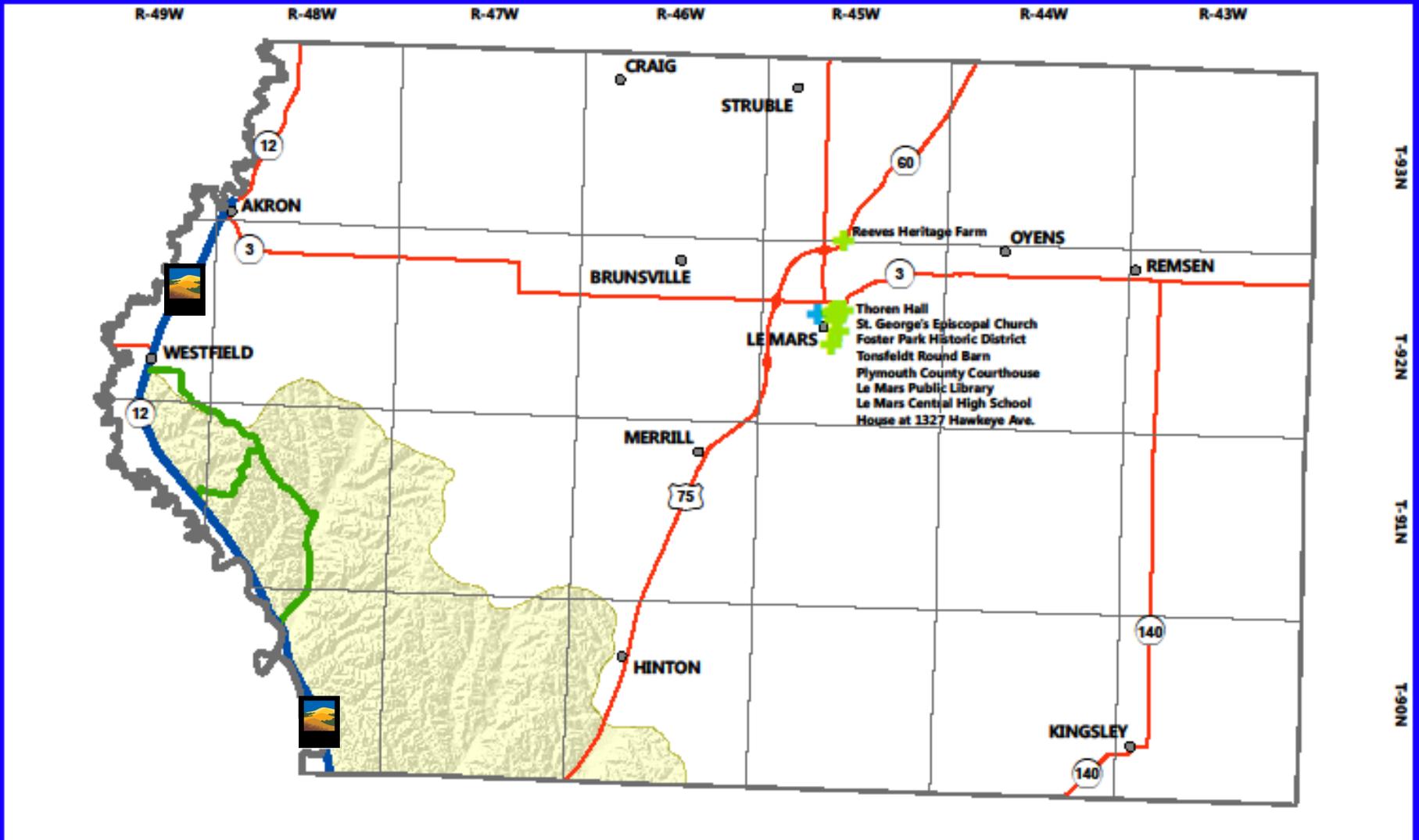




Historical Resources Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- National Register of Historic Places Site
- Other Significant Historic Place Site





Loess Hills Scenic Byway Historical Resources Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared by: Polk/Pottawattamie County GIS Department

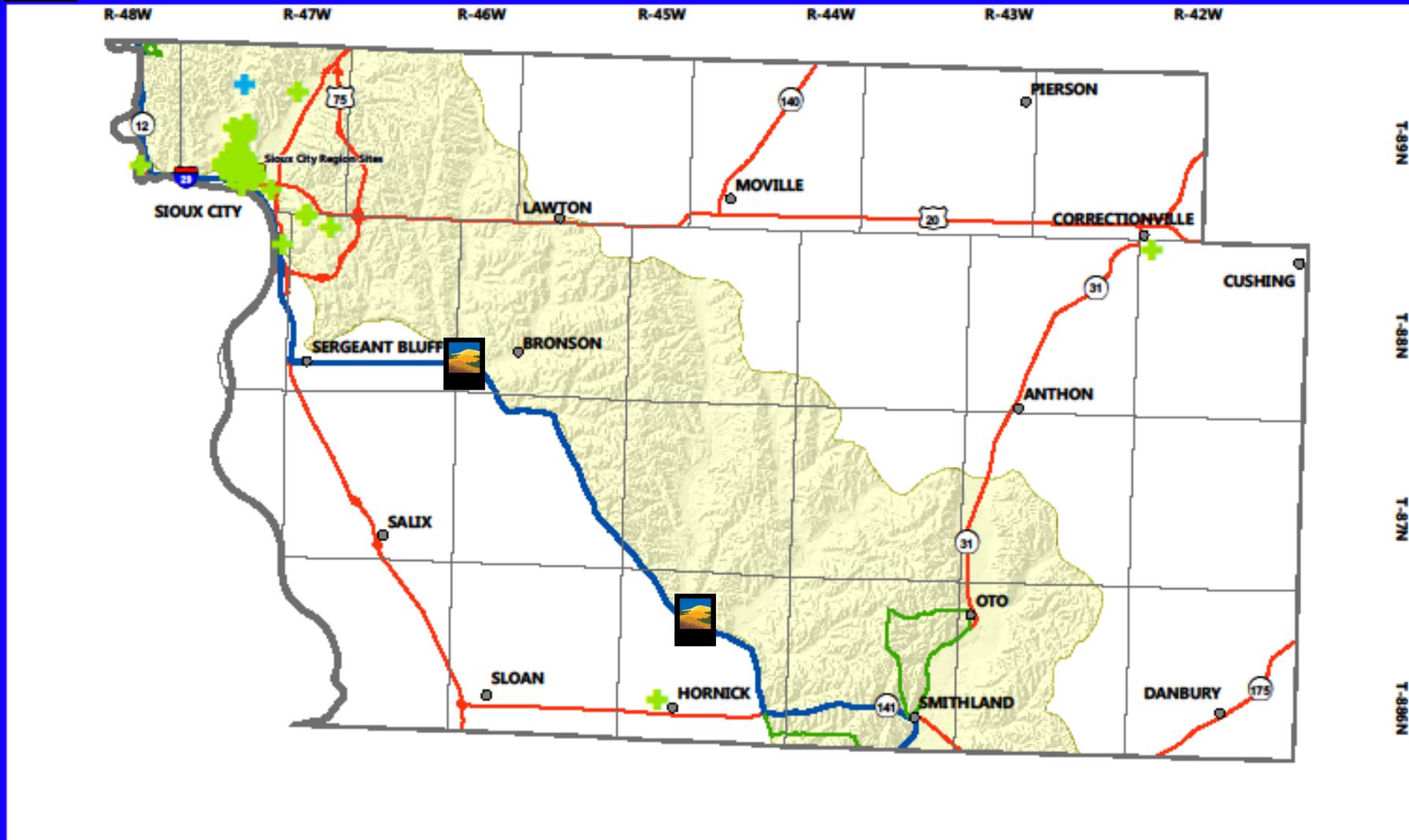
Property Name	Address	City	In National Register
Foster Park Historic District		La Mars	YES
House at 1327 Hawkeye Ave.	1327 Hawkeye Ave.	La Mars	NO
Le Mars Central High School		La Mars	YES
Le Mars Public Library	200 Central	La Mars	YES
Plymouth County Courthouse	E 3rd Ave.	La Mars	YES
Zeeves Heritage Farm		La Mars	YES
St. George's Episcopal Church	400 1st Ave., SE	La Mars	YES
Thoren Hall	100th St SE	La Mars	YES
Townfield Round Barn	Plymouth Co. Fairgrounds	La Mars	YES



Historical Resources Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- National Register of Historic Places Site
- Other Significant Historic Place Site





Loess Hills Scenic Byway Historical Resources

Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hills Regional Conservation & Development
 Prepared by: Pottawatomie County GIS Department

Property Name	Address	City	In National Register
Alhambra Apartments	801 8th St	Spoux City	YES
Abby, Atchison A., House		Spoux City	YES
Badgerow Building	622 W 4th St	Spoux City	YES
Day State Block	1105 4th St	Spoux City	YES
Boston Block	1005 4th St	Spoux City	YES
Burguler, Theophile, Cabin		Spoux City	YES
Burham, Ely G., House		Spoux City	YES
Charles City College Hall		Spoux City	YES
Chic, Millie, Sr. Pl & Prod Depot	Main St South of Railway St.	Herrick	YES
Commercial Building	1124 4th St	Spoux City	YES
Commercial Building	1008 4th St	Spoux City	YES
Davidson Building	505 6th St	Spoux City	YES
Ego Hotel/EGRAHARVE Building	1119 4th St	Spoux City	YES
Evans Block	1126 4th St	Spoux City	YES
Everitt, H. H., House		Spoux City	YES
Fourth Street Historic District	4th St	Spoux City	YES
Franc, Margaretta, House		Spoux City	YES
Knapp-Spencer Warehouse	3rd St	Spoux City	YES
Knott, Dr. Van Buren, House		Spoux City	YES
Krummanna Block	1101 4th St	Spoux City	YES
Lee Block	1016 4th St	Spoux City	YES
Leeds Junior High School		Spoux City	YES
Lerich/Nelson Building	1002 4th St	Spoux City	YES
Main Hall		Spoux City	YES
Major Block	1010 4th St	Spoux City	YES
Martin Hotel		Spoux City	YES
Martin, T. S. and Company	515 4th St	Spoux City	YES
Mary Elizabeth Day Nursery	814 Court St	Spoux City	YES
McCormick, Fletcher A., House		Spoux City	YES
Midland Packing Company		Spoux City	YES
Motor Mart Building		Spoux City	YES
Mount Sinai Temple		Spoux City	YES
Murhall, James P., House		Spoux City	YES
Municipal Auditorium		Spoux City	YES
Mylius-Eaton House		Spoux City	YES
New Orphanum Theatre	520-28 Pierce St.	Spoux City	YES
Oversen, Julius and Ashie, House		Spoux City	YES
Petrea, John, House		Spoux City	YES
Perasso Building	1127 4th St	Spoux City	YES
Plymouth Building	1100 4th St	Spoux City	YES
Purcell, Ulysses G., House		Spoux City	YES
Rose Hill Historic District		Spoux City	YES
Schuelin, Ben and Harriet, House		Spoux City	YES
Sergeant Floyd Monument	Glenn Ave. and Lewis Rd.	Spoux City	YES
Spoux City Baptist Church		Spoux City	YES
Spoux City Central High School		Spoux City	YES
Spoux City Fire Station Number 3	1211 5th St	Spoux City	YES
Spoux City Free Public Library	705 6th St	Spoux City	YES
Spoux City Unseed Oil Works	210 Court St	Spoux City	YES
Spoux City Masonic Temple		Spoux City	YES



Loess Hills Scenic Byway Historical Resources
 Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hill Resources Conservation & Development
 Prepared by: Independent County GIS Department

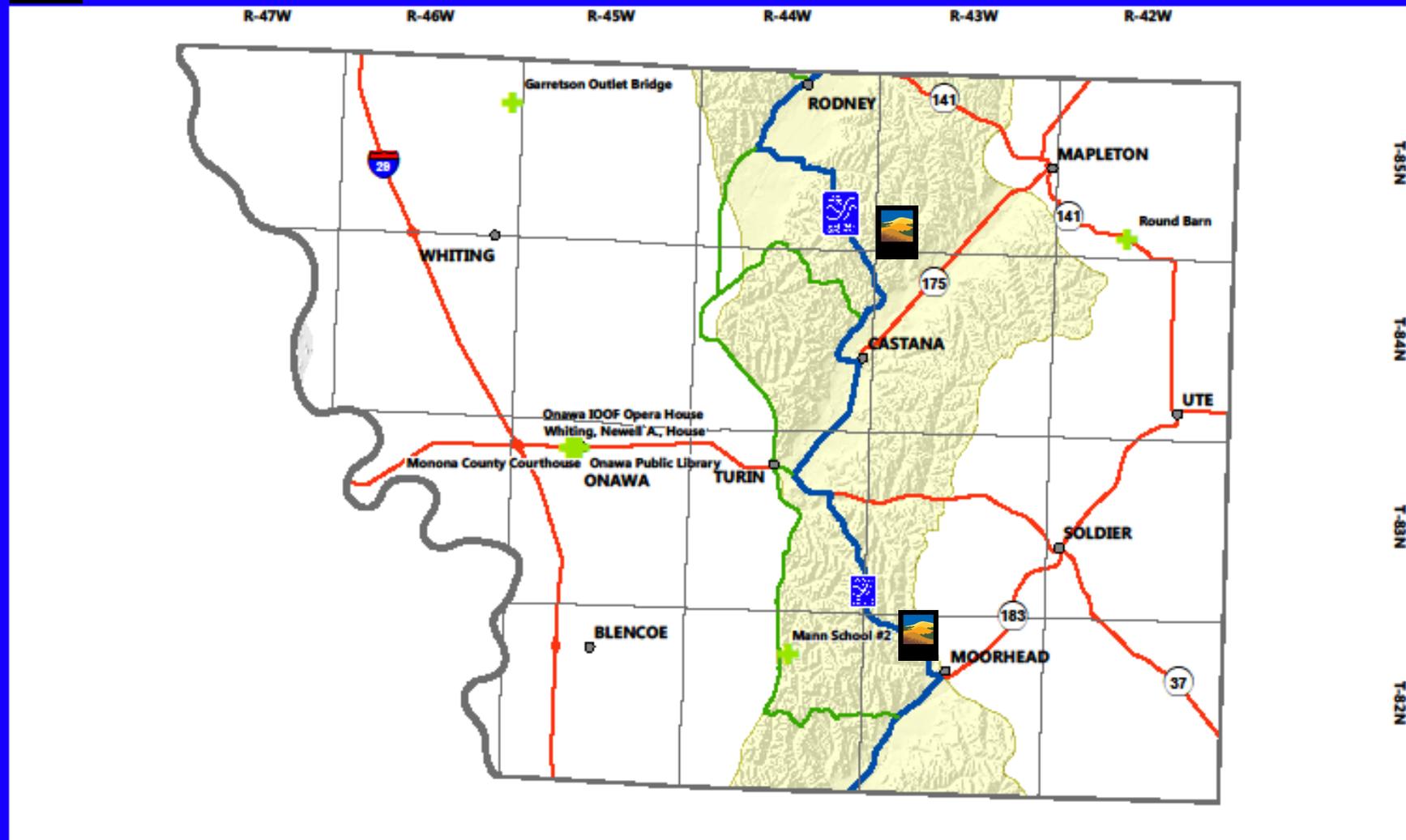
Property Name	Address	City	In National Register
Sioux City Public Museum	2901 Jackson St.	Sioux City	NO
Shean, Martin L., House		Sioux City	YES
St. Boniface Historic District	703 W 5th St	Sioux City	YES
St. Thomas Episcopal Church		Sioux City	YES
Stevenson, John, Saloon	1019 4th St	Sioux City	YES
Trinkel House		Corneillonville	YES
Warrior Hotel	519 6th St	Sioux City	YES
White Palace System	1116 4th St	Sioux City	YES
Williges Building		Sioux City	YES
Woodbury County Courthouse		Sioux City	YES



Historical Resources Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Township Line
-  Loess Hills Landform Region
-  National Register of Historic Places Site
-  Other Significant Historic Place Site





Loess Hills Scenic Byway Historical Resources

Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden 18th Resource Conservation & Development
Prepared By: Pocahontas County GIS Department

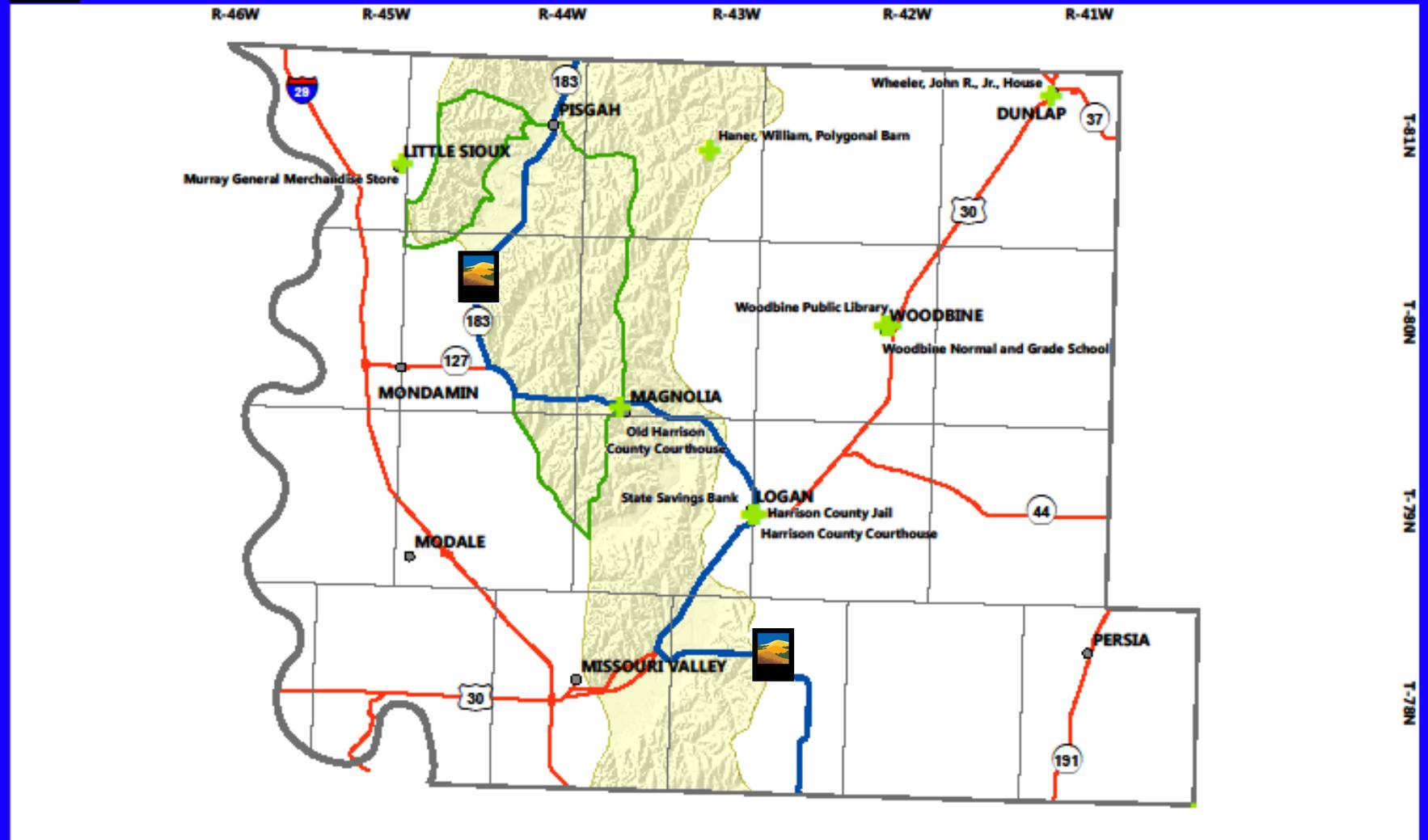
Property Name	Address	City	In National Register
Jarrison Outlet Bridge		Whiting	YES
Main School #2		Moorehead	YES
Monona County Courthouse	Iowa Ave	Onawa	YES
Onawa 100F Opera House	1023 10th Av	Onawa	YES
Onawa Public Library	707 Iowa Ave	Onawa	YES
Round Barn		Mapleton	YES
Whiting, Newell A., House	1106 Iowa Av	Onawa	YES



Historical Resources Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- National Register of Historic Places Site
- Other Significant Historic Place Site





LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Historical Resources Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

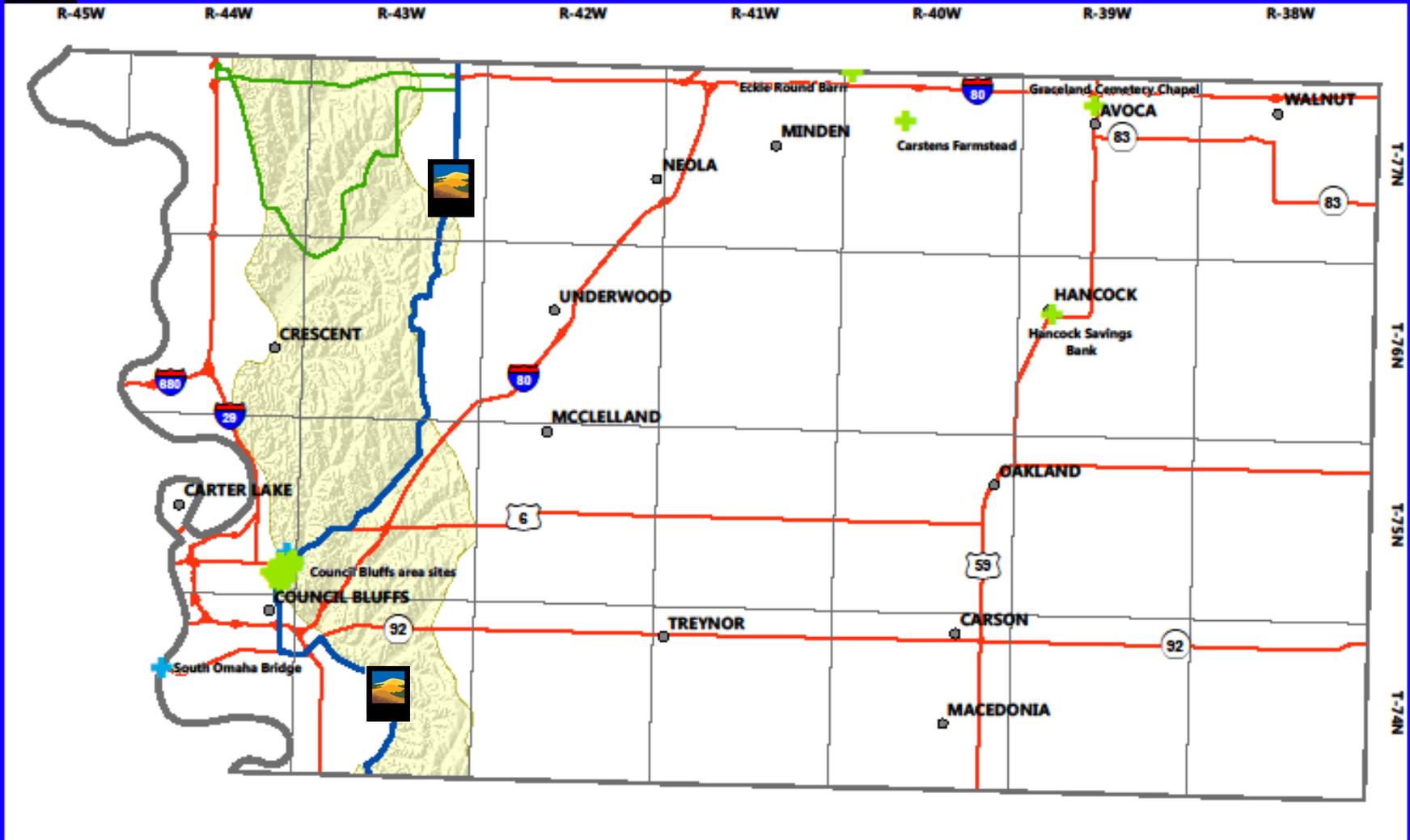
Property Name	Address	City	In National Register
Haner, William, Polygonal Barn		Piawah	YES
Harrison County Courthouse	7th St	Logan	YES
Harrison County Jail	105 S 1st Ave	Logan	YES
Murray General Merchandise Store	2nd St	Little Sto	YES
Old Harrison County Courthouse	401 Locust S	Magnolia	YES
State Savings Bank	312 E 7th St	Logan	YES
Wheeler, John R., Jr., House	407 S 3rd St	Dunlap	YES
Woodbine Normal and Grade School	5th St	Woodbine	YES
Woodbine Public Library	58 5th St	Woodbine	YES



Historical Resources Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
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Loess Hills Scenic Byway Historical Resources

Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hill Resource Conservation & Development
 Prepared by Pottawattamie County GIS Department

Property Name	Address	City	In National Register
Andersen Company Building	619 S Mah St	Council Bluffs	YES
Bennett Building		Council Bluffs	YES
Benešeth, August, House	621 3rd St	Council Bluffs	YES
Brown-Kelley Building	519 S Mah St	Council Bluffs	YES
Building	531 S Mah St	Council Bluffs	YES
Calvin, Thomas E., House	150 Park Ave	Council Bluffs	YES
Carstens Farmstead		Avoca	YES
Chevera B'nai B'rith Synagogue		Council Bluffs	YES
City Bakery		Council Bluffs	YES
Clifton, Samuel, House	133 Bluff St	Council Bluffs	YES
Commercial Building	607 S Mah St	Council Bluffs	YES
Creston House	215 S Mah St	Council Bluffs	YES
Culver Building	504 S Mah St	Council Bluffs	YES
Darlington Building	513 S Mah St	Council Bluffs	YES
Dodge, Greenville M., House	605 S 3rd St	Council Bluffs	YES
Dodge, Ruth Anne, Memorial	Fairview Cemetery	Council Bluffs	NO
Eckle Round Barn		Avoca	YES
Edgemont Pharmacy		Council Bluffs	YES
Frankson Building		Council Bluffs	YES
Salzgeber Grocery		Council Bluffs	YES
Graceland Cemetery Chapel	Highway 59	Avoca	YES
Grahl-Peterson Building	223 S Mah St	Council Bluffs	YES
Hancock Savings Bank	311 Mah St	Hancock	YES
Harriet and Meadfort Restaurant		Council Bluffs	YES
Hotel Point Shop		Council Bluffs	YES
Hughes, Martin, House	903 3rd St	Council Bluffs	YES
Jarvis Building	225 S Mah St	Council Bluffs	YES
Jefferts, Thomas, House	523 6th Ave	Council Bluffs	YES
Jerny Block	231 S Mah St	Council Bluffs	YES
Key Real Estate Company	229 S Mah St	Council Bluffs	YES
Kid Hotel	501 S Mah St	Council Bluffs	YES
Madon, Max, Building	219 S Mah St	Council Bluffs	YES
Meyer Building/Union Hall		Council Bluffs	YES
Meyranik Boots and Shoes Store		Council Bluffs	YES
Open House		Council Bluffs	YES
Olsen Saloon		Council Bluffs	YES
Parking Lot	517 S Mah St	Council Bluffs	YES
Peter-Plummer Building	525 S Mah St	Council Bluffs	YES
Phoenix Block		Council Bluffs	YES
Pioneer Implement Company		Council Bluffs	YES
Pottawattamie County Jail	226 Pearl St	Council Bluffs	YES
Other Building	213 S Mah St	Council Bluffs	YES
Saint Peter's Church and Rectory	1 Bluff St	Council Bluffs	YES
Scanlan Meat Market		Council Bluffs	YES
Schoff Building	529 S Mah St	Council Bluffs	YES
Shea, John J. and Agnes, House	309 S 8th St	Council Bluffs	YES
South Omaha Bridge	US 275/NE 92 over the Missouri R.	Council Bluffs	NO
Spectman Building	509 S Mah St	Council Bluffs	YES
St. Joseph House	621 S Mah St	Council Bluffs	YES
St. Peter's Church and Rectory	1 Bluff St.	Council Bluffs	NO



Loess Hills Scenic Byway Historical Resources

Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hill Resource Conservation & Development
 Prepared by: Pottawattamie County GIS Department

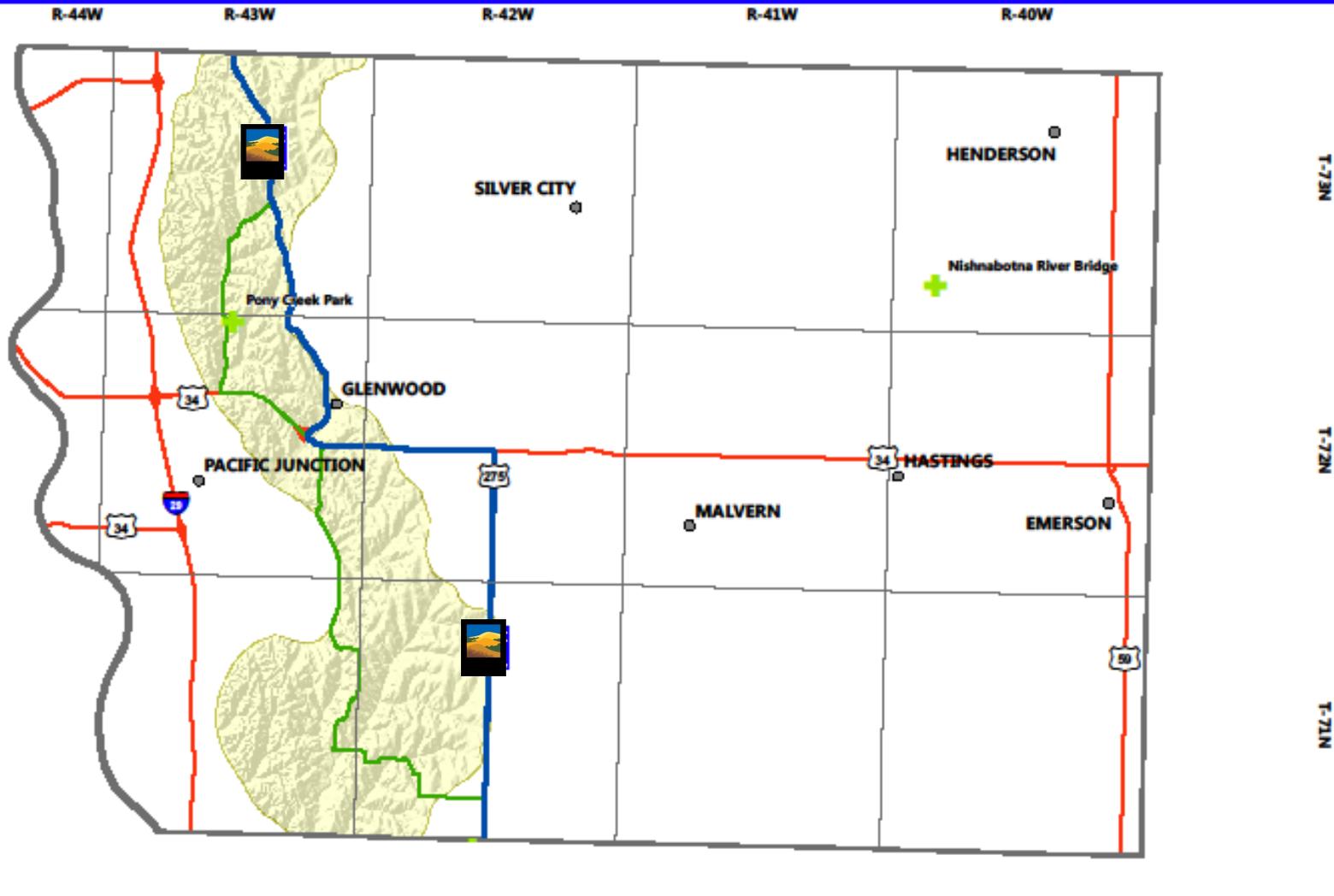
Property Name	Address	City	In National Register
State Savings Bank		Council Bluffs	YES
Straub Building	221 S Main St	Council Bluffs	YES
Title Guaranty Building	500 S Main St	Council Bluffs	YES
Tuller's Lysander House	151 Park Ave	Council Bluffs	YES
Verna Dry Goods		Council Bluffs	YES
Wabers Harness Shop		Council Bluffs	YES
Warner and Company		Council Bluffs	YES
White Bakery	227 S Main St	Council Bluffs	YES
Wickham Building	512 S Main St	Council Bluffs	YES
Wickham, O. P., House	616 S 7th St	Council Bluffs	YES
Wickham-Devol House		Council Bluffs	YES
YMCA Building	628 1st Ave	Council Bluffs	YES



Historical Resources Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Township Line
-  Loess Hills Landform Region
-  National Register of Historic Places Site
-  Other Significant Historic Place Site





LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Historical Resources

Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared by Putnam-Wentworth County GIS Department

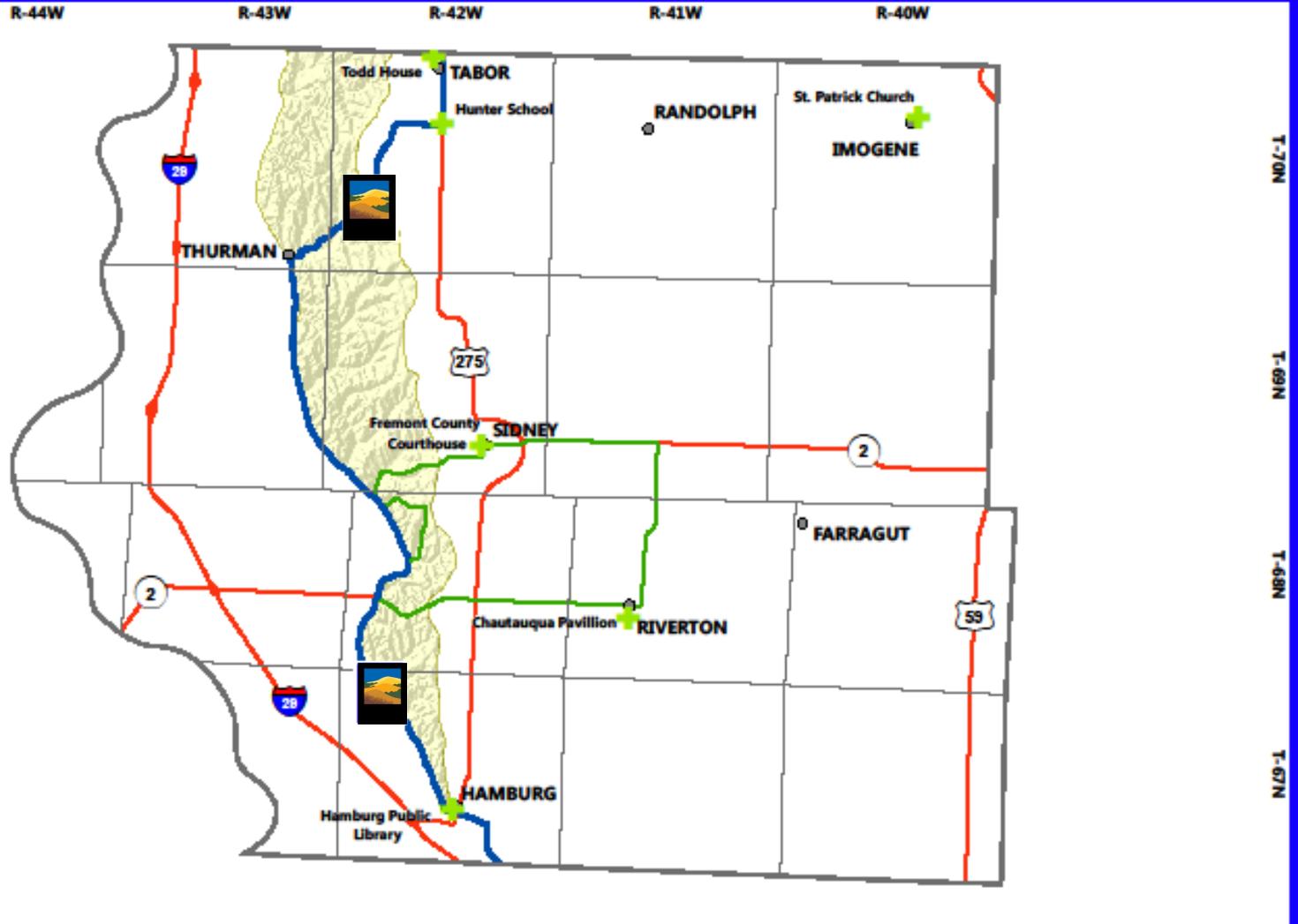
Property Name	Address	City	In National Register
Nishnabotna River Blvd	M16	Henderson	YES
Pony Creek Park		Glarwood	YES



Historical Resources Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- National Register of Historic Places Site
- Other Significant Historic Place Site





Loess Hills Scenic Byway Historical Resources

Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared by: Fremont County GIS Department

Property Name	Address	City	In National Register
Chautauqua Pavilion		Riverton	YES
Fremont County Courthouse	Clay St	Sidney	YES
Hamburg Public Library	1301 Main S Hwy 275	Hamburg	YES
Hunter School	Hwy 275	Tabor	YES
St. Patrick Church	3rd St	Imogene	YES
Todd House	Park St	Tabor	YES

Understanding the Cultural Quality

Definition of Cultural Quality

Cultural quality is the evidence and expressions of the customs or traditions of a distinct group of people. Cultural features include, but are not limited to, crafts, music, dance, rituals, festivals, speech, food, special events, vernacular architecture, etc., that are currently practiced. The cultural qualities of the corridor could highlight one or more significant communities and/or ethnic traditions (United States Government Federal Register 26761, 1995).

What do we know?

Diversity and contrast characterize the cultural resources of Iowa's Loess Hills. The cultural heritage of the Scenic Byway Corridor has been strongly influenced by a mixture of customs and traditions passed on from the region's first inhabitants, Native Americans; pioneer settlers of German, Danish and Swedish descent; and Mormon immigrants. A predominately agricultural landscape dotted with small rural communities surrounds the cosmopolitan features and lifestyles in the thriving urban centers of Sioux City and Council Bluffs-Omaha. The unaltered natural settings and rustic outdoor facilities of the region's most remote areas are a short distance from modern and sophisticated art centers, museums, restaurants and hotels.

The cultural quality of the Loess Hills National Scenic Byway Corridor is a result of this surprising diversity and contrast as well as the number of cultural

attractions and events. More than 60 attractions in the Scenic Byway Corridor highlight the region's many cultural resources. Among these cultural attractions are pioneer cemeteries, historic churches, old fashion soda fountains, antique shops, farmstead inns, museums, monuments and community theaters. Complimenting these are close to 50 cultural events that are held regularly in communities throughout the Scenic Byway Corridor. These events include farmers markets, rodeos, county fairs, farm festivals, heritage celebrations and art shows.

Representative Cultural Resources of the Loess Hills National Scenic Byway Corridor

The agricultural and rural flavor of the Loess Hills is best illustrated by such events as **Apple Fest** in Woodbine that coincides with, and celebrates the apple harvest; the **Sidney Championship Rodeo** that is held in Fremont County and attracts thousands of participants and spectators; and attractions including the **Moorhead Cultural Center** with displays and activities reflecting the people, history and culture of the Loess Hills, **Dunham Pioneer Stock Farm**

Barn near Dunlap and **Carstens Memorial Farmstead** in Pottawattamie County that interpret and educate visitors about early agriculture and farm life in Iowa and the Midwest.

Strong ethnic influences on present day customs and traditions of the people in the Scenic Byway Corridor can be traced to large immigrant settlements in western Iowa. Present day communities located in the heart of these settlements include the five **German Colonies** of Defiance, Earling, Panama, Portsmouth and Westphalia on the eastern edge of the Loess Hills. One of the largest rural Danish populations in the country is centered in Elk Horn and Kimballton, both communities also east of the Loess Hills. **The National Danish Immigrant Museum** is located in Elk Horn.

The contribution that people and events in history make to cultural quality of the Loess Hills National Scenic Byway Corridor is illustrated by the **War Eagle Monument** in Sioux City, which celebrates the customs and traditions of Native American inhabitants of the region. The **Lewis and Clark Festival** in Onawa, **Kanesville Log Cabin Tabernacle** in Council Bluffs and the **Harrison County Historical Village** at the Welcome Center in Missouri Valley



Sidney Rodeo, courtesy the Sidney Herald, Sarah Bloom

commemorate the lifestyles of the first pioneer explorers and settlers west of the Mississippi. The nation's first coast to coast roadway, the **Lincoln Highway**, travels through Harrison and Pottawattamie Counties in the Loess Hills and is a reminder of the social and economic changes that have taken place in America's more recent past.

Contemporary attractions and events in the Scenic Byway Corridor also contribute to the region's cultural assets. These include the Sioux City Art Center and **ARTSPASH** art festival and show; Council Bluff's **Loess Fest**; Onawa's annual **Onabike** bicycle ride through the Loess Hills; the **Southwest Iowa Art Tour**; and the **resorts and casinos** in Council Bluffs, Sioux City, Onawa and Sloan.



L. Brisbois

What needs to be done?

Cultural events and attractions offer special opportunities for residents in the Loess Hills to share, and visitors to learn about and enjoy, local customs and traditions. The cultural quality of the Scenic Byway Corridor manifests itself in present day life in the cities, small communities, and rural areas of the Loess Hills. As such, visitors gain their appreciation for the culture of the Loess Hills through interaction with the people who live there. In this sense, cultural resources in the Loess Hills have the potential to impact the experience of travelers in the Scenic Byway Corridor to a greater extent than any of the region's other intrinsic qualities. Specific actions included in the "Corridor Development Actions" section of the Corridor Management Plan will address the need to:

- Increase the public's enjoyment and understanding of, and improve their access to, resources that are a part of the cultural fabric of the Loess Hills National Scenic Byway; and
- Effectively promote existing attractions and develop new attractions and events that contribute to the cultural quality of the scenic byway corridor.



Green Hollow Loess Hills & Heritage Event—Tribal drum circle

Understanding the Recreational Quality

Definition of Recreational Quality

Recreational quality involves outdoor recreational activities directly associated with and dependent on the natural and cultural elements of the corridor's landscape. The recreational activities provide opportunities for active and passive recreational experiences. They can include, but are not limited to, skiing, rafting, boating, fishing and hiking. Driving the road itself may qualify as a pleasurable recreational experience. The recreational activities may be seasonal, but the quality and importance of the recreational activities as seasonal operations must be well recognized (United States Federal Register 26761, 1995).

What do we know?

An abundance and variety of recreational resources are found in Iowa's Loess Hills. Recreational opportunities associated with the Scenic Byway are dependent in a large part on the scenic, natural, historic, cultural, and archeological intrinsic qualities, or resources, in the Corridor. The development and management of these resources provide travelers in the Scenic Byway Corridor access to outdoor recreational activities that include:

- | | |
|-------------------------|--------------------------|
| Auto-touring | Hiking |
| Picnicking | Wildlife-watching |
| Bicycling | Fishing |
| Camping | Hunting |
| Snow skiing | Snowmobiling |
| Horseback riding | Paddling |

In addition to the Loess Hills National Scenic Byway itself, there are over 100 parks, recreation and wildlife areas, and outdoor recreation attractions that cover more than 57,000 acres in the Corridor. These recreational attractions are owned and maintained by federal, state and county agencies; local communities; nonprofit groups; and private businesses. Facilities provided by public and private entities at these attractions offer travelers an increasingly popular means of experiencing first-hand the Loess Hills through a variety of outdoor recreational activities. These parks, recreation areas and attractions can also provide effective long-term protection for many of the most unique resources of Loess Hills National Scenic Byway Corridor.

Representative Recreational Resources of the Loess Hills National Scenic Byway Corridor

There are specific recreational resources in, and adjacent to, the Loess Hills that are most representative of the intrinsic recreational quality of this region. Those resources that best depict the recreational quality of the Loess Hills National Scenic Byway Corridor are:

State parks, preserves, forests, recreation and wildlife areas: There are over 28,000 acres in more than three dozen state parks, forests, recreation and wildlife areas in the Scenic Byway Corridor. These include:

- Stone State Park, Woodbury County;
- Mount Talbot State Preserve, Woodbury County;
- Lewis and Clark State Park, Monona County;
- Preparation Canyon State Park in Monona County;
- Loess Hills State Forest, Harrison and Monona Counties;
- Loess Hills Wildlife Area, Monona County;
- Wilson Island Recreation Area, Harrison County;
- Vincent Bluff State Preserve, Pottawattamie County;
- Lake Manawa State Park, Pottawattamie County;
- Waubonsie State Park, Fremont County;
- Forney Lake Wildlife Area, Fremont County; and
- Riverton Wildlife Area, Fremont County.



L. Brisbois

County parks, recreation and wildlife areas: There are over 16,000 acres in more than 80 public areas owned and maintained by the seven counties in the Loess Hills National Scenic Byway Corridor. These include:

Hillview Recreation Area, Plymouth County;

- Deer Creek Lake, Plymouth County;
- Dorothy Pecaut Nature Center, Woodbury County;
- Southwood Conservation Area, Woodbury County;
- Whiting Woods, Monona County;
- Rodney Pits Recreation Area, Monona County;
- Gleason-Hubel Wildlife Area, Harrison County;
- Murray Hill Scenic Overlook, Harrison County;
- Willow Lake Recreation Area, Harrison County;
- Hitchcock Nature Area, Pottawattamie County;
- Arrowhead Park, Pottawattamie County;
- Mile Hill Recreation Area, Mills County;
- Pony Creek Park, Mills County;
- West Oak Forest, Mills County; and
- Pinky's Glen, Fremont County.

City parks and recreation areas: Each of the 21 communities through which the Scenic Byway travels owns and maintains public recreation facilities.

These include:

- Bacon Creek Park, Sioux City;
- Sergeant Floyd Monument, Sioux City;
- War Eagle Monument, Sioux City;
- Fairmount Park, Council Bluffs;
- Lewis and Clark Monument, Council Bluffs; and
- Glenwood Lake Park, Glenwood.

Private recreation and nature areas: Nonprofit organizations and private businesses own and maintain recreation and natural areas in the Loess Hills National Scenic Byway Corridor. These include:

- Broken Kettle Grassland, Plymouth County;
- Sioux City Prairie, Woodbury County;
- Mount Crescent Ski Area, Pottawattamie County; and

- Wabash Trace Nature Trail, beginning in Pottawattamie County and extending through Mills and Fremont Counties;
- Folsom Point Preserve, Pottawattamie County; and
- Blackburn Green Hollow, Mills County.

DeSoto National Wildlife Refuge: DeSoto National Wildlife Refuge in Harrison County is the only federally owned and maintained recreation and wildlife area in the Scenic Byway Corridor. The Refuge offers travelers a modern visitors' center which houses the Bertrand Steamboat Museum, self-guided auto-tour, nature trails, picnic areas, boating, fishing and hunting on its more than 9,800 acres.



Harrison County Conservation Board

What needs to be done?

Travelers most frequently experience the scenic, natural, historic, cultural and archeological resources of the Loess Hills National Scenic Byway Corridor through their participation in the many recreational activities offered in the region. That being the case, recreational resources associated with the Scenic Byway play an enormously important role in creating increased public awareness and understanding of the Corridor's unique intrinsic qualities.

Specific actions included in the "Corridor Development Actions" section of the Corridor Management Plan address the need to:

- Improve, expand and maintain existing facilities in order to encourage and ensure public access to resources that are a part of the recreational quality of the Loess Hills National Scenic Byway Corridor;
- Improve and increase interpretation and educational opportunities for travelers at recreational facilities in the Scenic Byway Corridor;
- Identify the demand for, and develop, additional public recreation facilities in the Corridor; and
- Increase and expand promotion of the wide range of recreational opportunities available in the Loess Hills National Scenic Byway Corridor.



L. Brisbois

Maps and Tables

Recreational Resources - Map

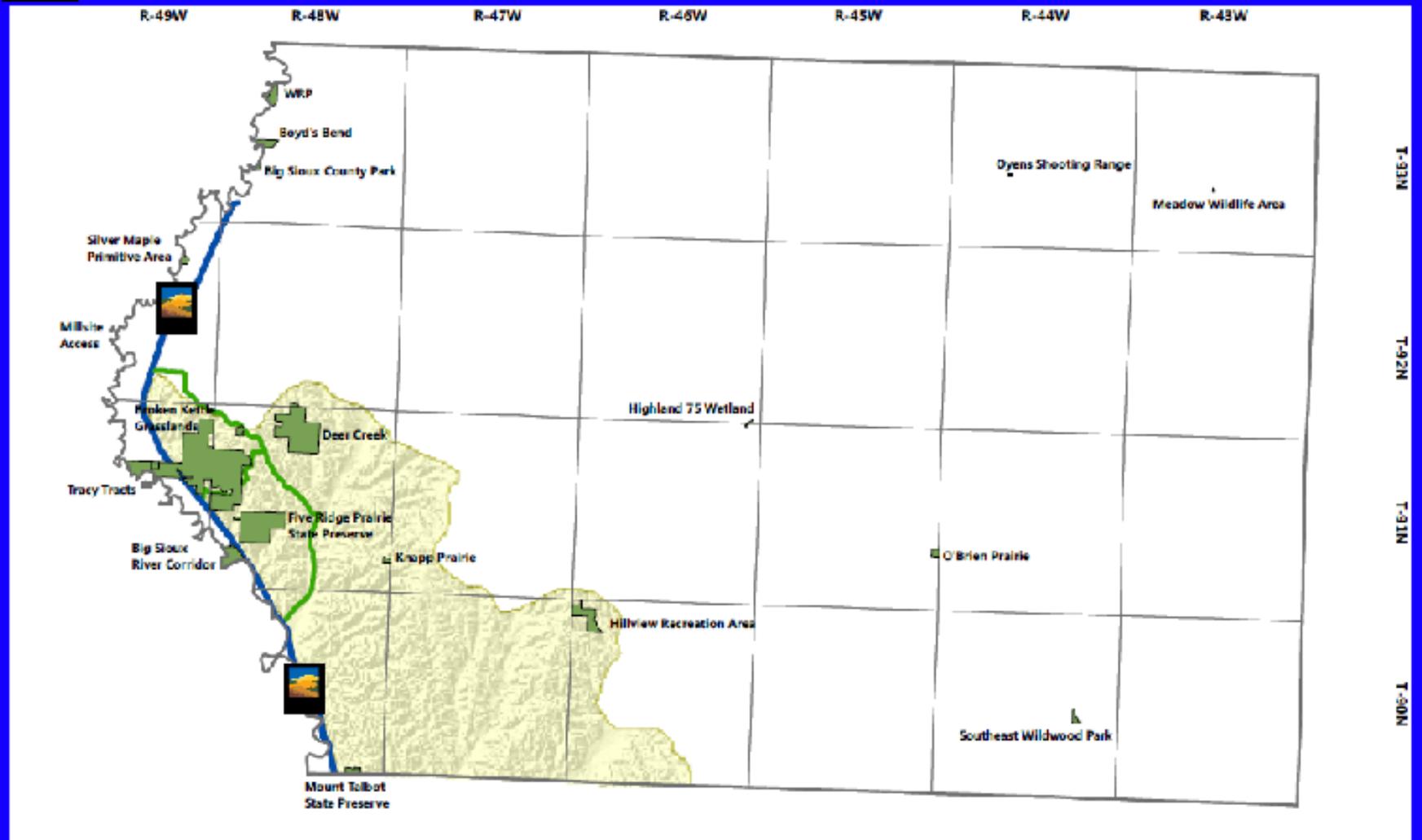
Recreational Resources - Table



Recreational Resources Plymouth County, IA

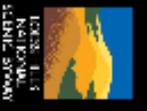
Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Recreation Areas
- Loess Hills Landform Region
- Township Line





Loess Hills Scenic Byway Recreational Resources
Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Goldsmith's Resource Conservation & Development
Prepared by: Polk/Plymouth County GIS Department

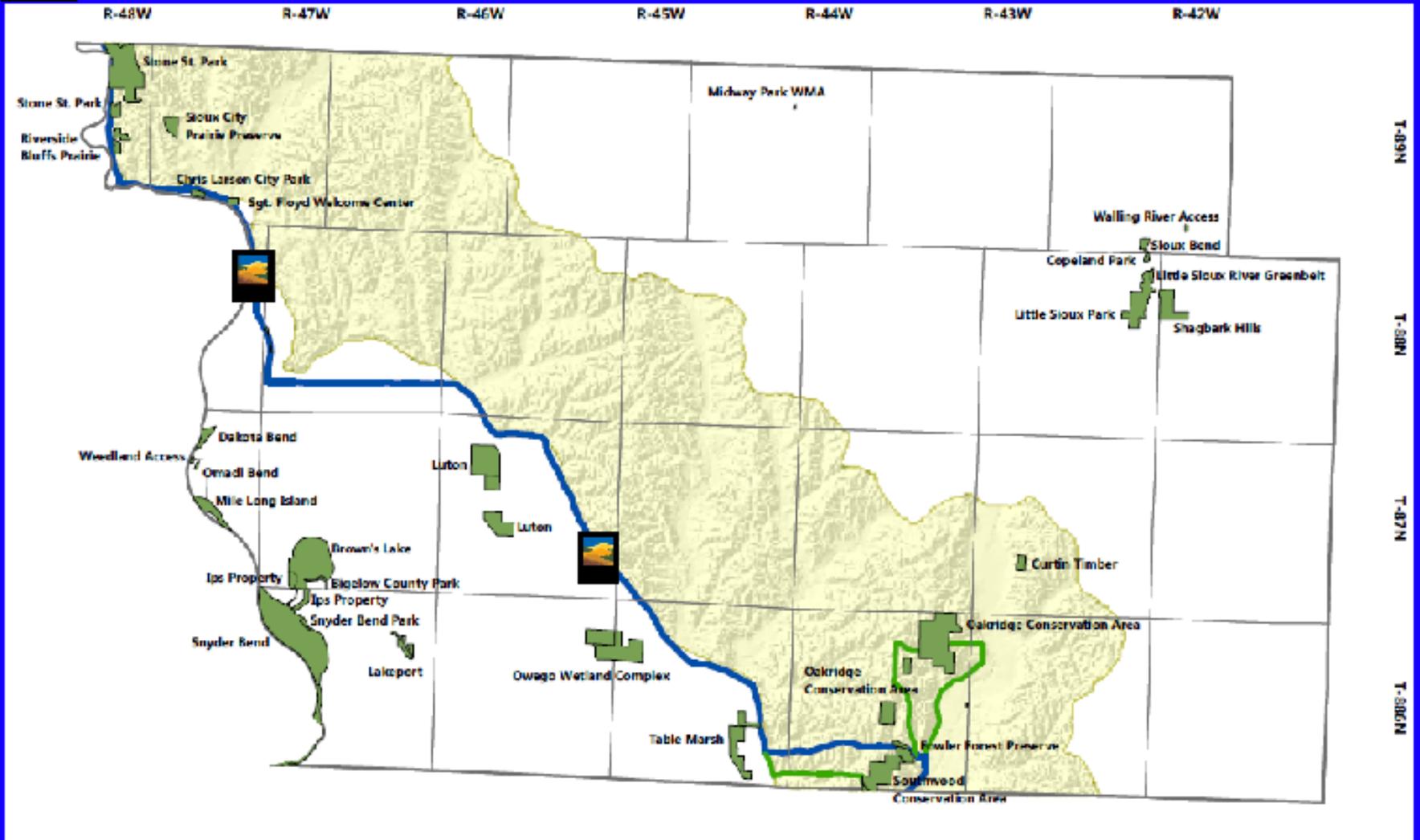
Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skiing	Undeveloped Area	Missouri River Access	Scenic Overlook	OWNER
Big Sioux County Park	33	X				X		X	X					X		X						County
Big Sioux River Corridor	900														X	X						County
Boyd's Bend																						
Broken Kettle Grassland	1200																		I			X TNC
Deer Creek	1020														X	X				X		County
Five Ridge Prairie Preserve	790										X									X		State
Highland 75 Wetland																						
Hillview Recreation Area	250	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X		I			County
Knappp Prairie	25										X											TNC
Meadow Wildlife Area	5														X	X						County
Millilitz Access	16						X								X	X	X			X		County
Mount Talbot State Preserve																						



Recreational Resources Woodbury County, IA

Laess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Recreation Areas
- Loess Hills Landform Region
- Township Line

0 1.25 2.5 5 7.5 Miles





Loess Hills Scenic Byway Recreational Resources
Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Tourism Commission's Development
Report by: Redbankbank County GIS Department

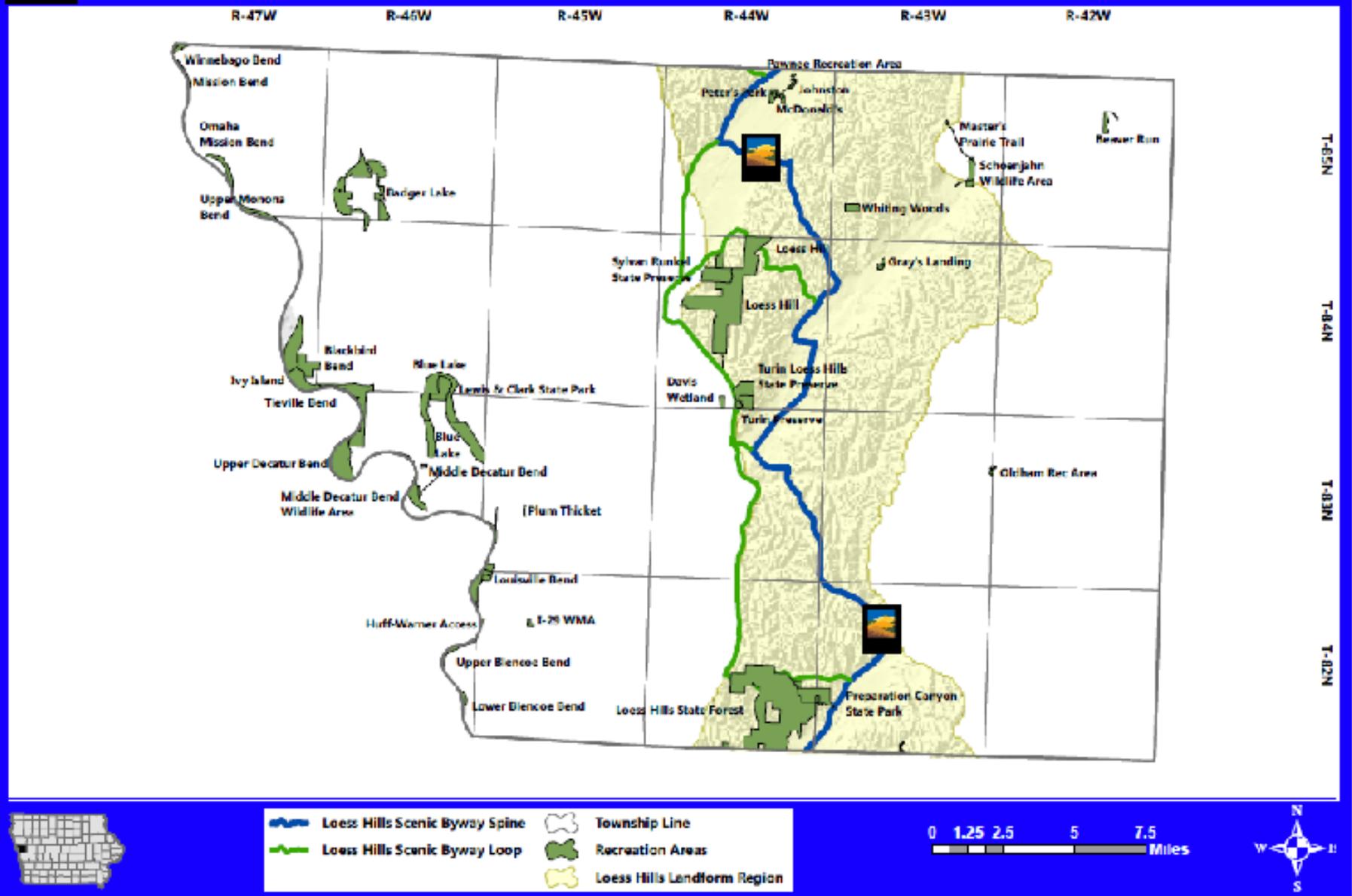
Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skiing	Undeveloped Area	Missouri River Access	Scenic Overlook	Owner
Bigelow County Park	24		x	x	1	x	x	x	x					x	x	x						County
Brown's Lake	1311															x	x		1			State
Chris Larson City Park																x						City
Copeland Park	0						x								x							County
Curlin Timber	90															x			1			County
Dakota Bend	109															x			1			County
Fowler Forest Preserve	108		x	x	1	x	x				x											County
Isa Property																						
Lakeport	121																x					County
Little Sioux Park	375		x	x	1	x	x	x	x		x			x	x	x	x					County
Little Sioux River Greenbelt	25															x	x		1			County
Luton																						



Recreational Resources Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department





Loess Hills Scenic Byway Recreational Resources

Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hills Resource Conservation & Development
 Prepared by: Polk/Monona County GIS Department

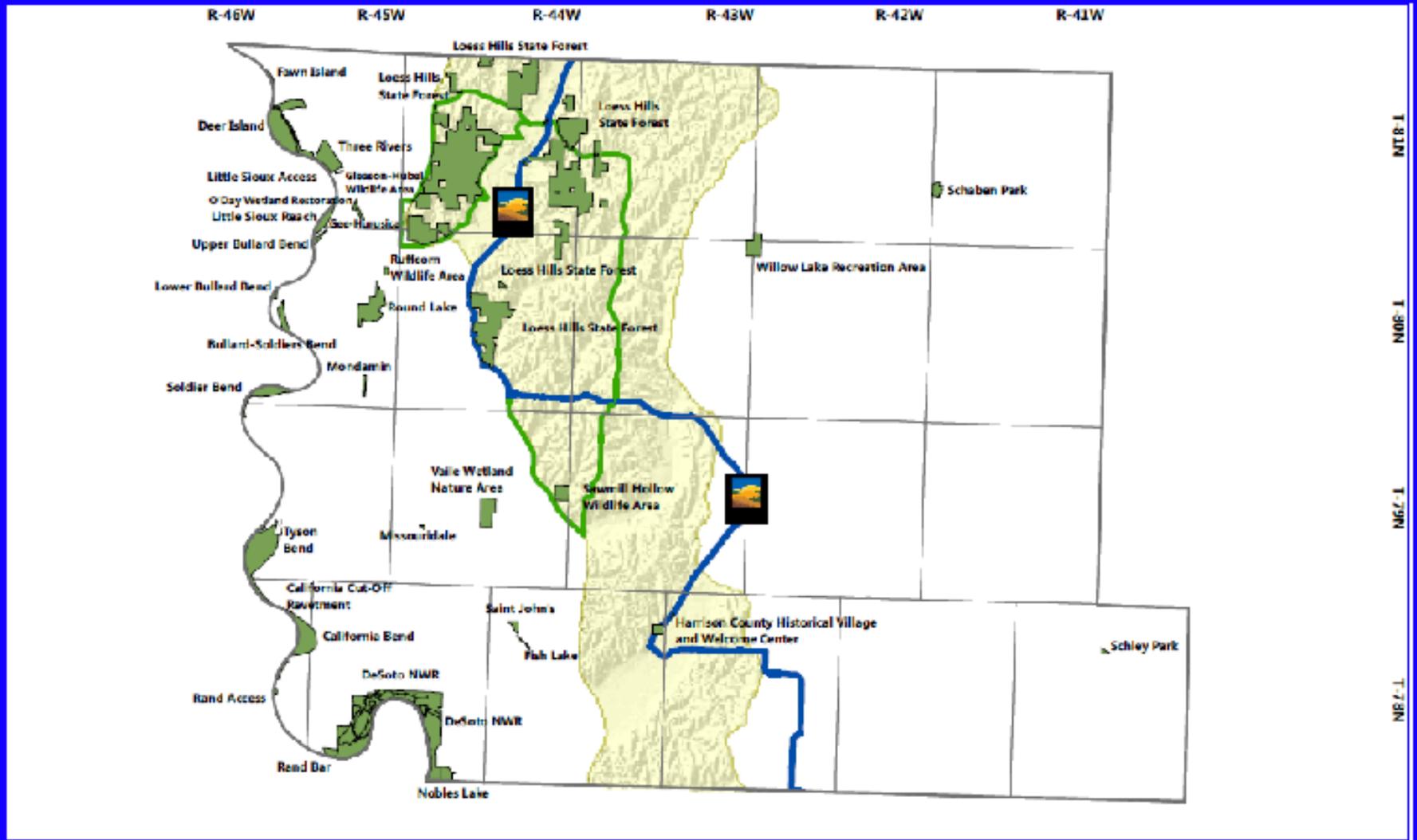
Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skiing	Undeveloped Area	Missouri River Access	Scenic Overlook	Owner	
Budger Lake	207																X					County	
Beaver Run	65																X						
Blackbird Bend	1022																		X			Federal	
Blue Lake	250													X	X	X							County
Davis Westland	54																		X				
Gray's Landing	43															X	X						County
Huff-Marner Acres	6			X	X	X		X	X											X			County
1-79 WMA																							
By Island	722													X									
Johnston																							
Lewis & Clark State Park	176	X	X	X	X	X		X	X	X	X	X				X	X						State
Loess Hills State Forest	11000							X	X							X	X						State



Recreational Resources Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattomie County GIS Department



	Loess Hills Scenic Byway Spine		Township Line
	Loess Hills Scenic Byway Loop		Recreation Areas
	Loess Hills Landform Region		





Loess Hills Scenic Byway Recreational Resources Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Revised by Buchanan/Smith County DNR Department

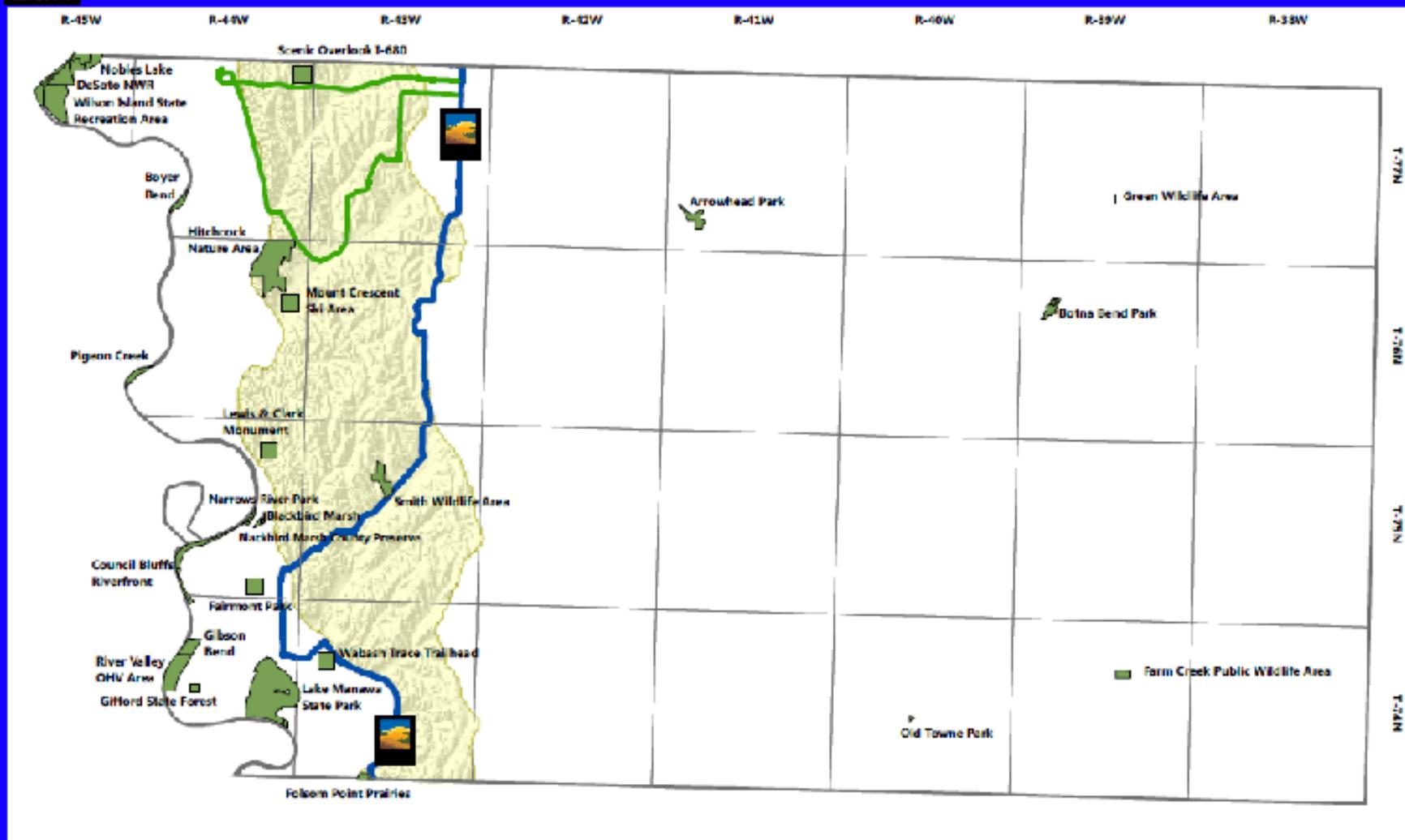
Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skiing	Undeveloped Area	Missouri River Access	Scenic Overlook	Owner
Douglas-So ldiers Bend																						
California Bend	420															X						State
California Cut-Off Revelben 1																						
Deer Island	710												X	X	X	X	X					State
DeSoto NWR	9823	X	X		I	X				X	X			X	X	X	X					Federal
Fawn Island																						
Fish Lake	19															X	X	X				County
Gen-Harris Ica																						
Glenn-H ubel Wildlife Area	105										X					X	X					County
Harrison County Historical Village	3	X	X		I	X				X	X											County
Little Sioux Access																						
Little Sioux Reach	15		X	X	I	X		X	X					X	X							County



Recreational Resources Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Township Line
Loess Hills Scenic Byway Loop	Recreation Areas
	Loess Hills Landform Region





Loess Hills Scenic Byway Recreational Resources

Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Folsom Hill Resource Conservation & Development
 Prepared by: Buchanan's County, IA Department

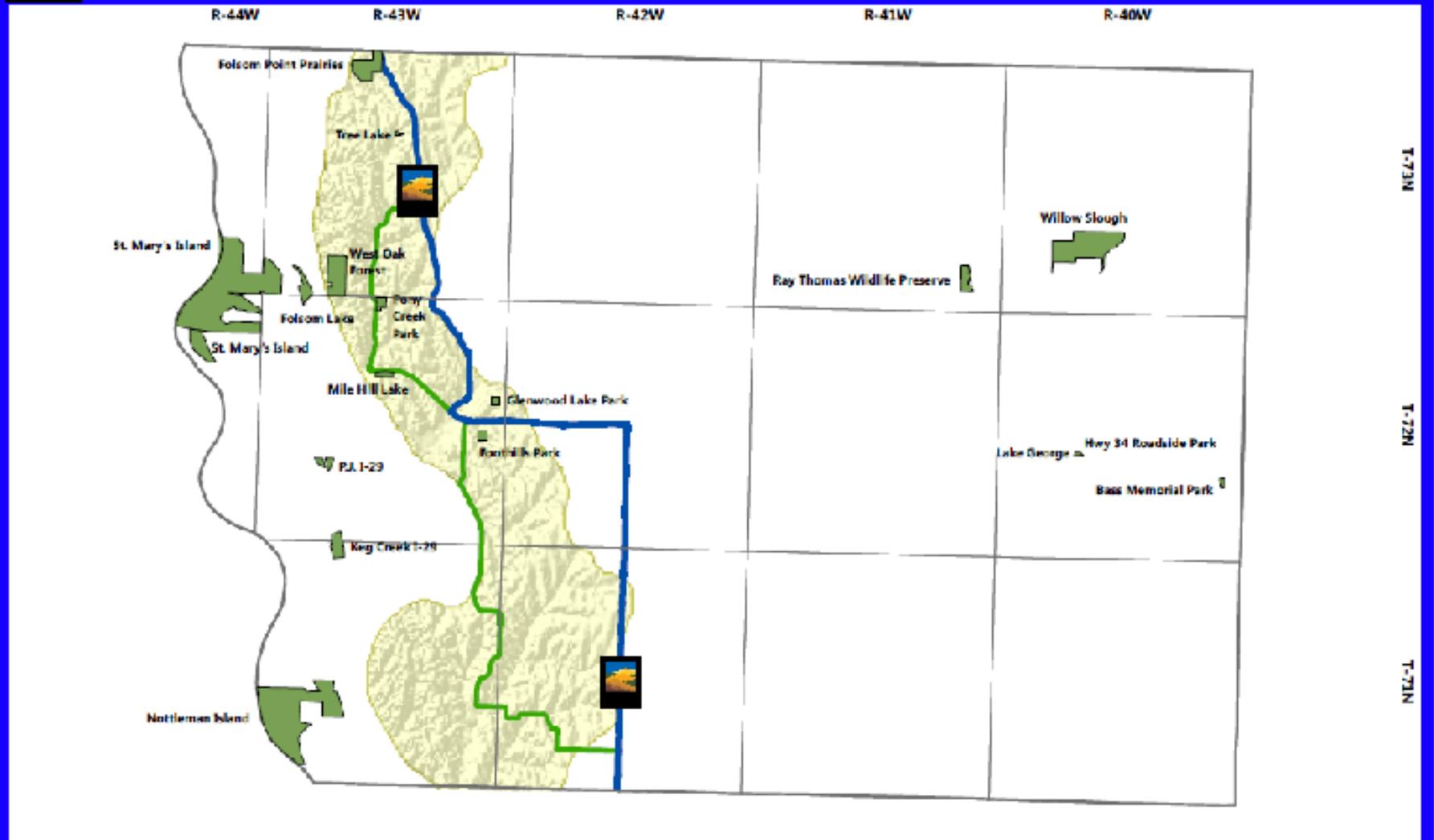
Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skiing	Undeveloped Area	Missouri River Access	Scenic Overlook	Owner
Arrowhead Park	147		x	x	x	x	x	x	x		x			x	x						x	County
Blackbird Marsh	14										x											County
Blackbird Marsh County Preserve																						County
Botina Bend Park	119		x	x	x	x	x	x	x						x							County
Boyer Bend																						
Council Bluffs Riverfront																						City
DeSoto NWR																						
Falmouth Park	90		x		x	x	x				x			x							x	City
Farm Creek Public Wildlife	80														x	x						County
Folsom Point Prairie	281										x											TNC
Gibson Bend																						
Gifford State Iforest	40																			x		State



Recreational Resources Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Township Line
Loess Hills Scenic Byway Loop	Recreation Areas
	Loess Hills Landform Region

0 1 2 4 6 Miles



Loess Hills Scenic Byway Recreational Resources

Maib County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hills Resource Conservation & Development
 Prepared by: Ferdinandville County GIS Department

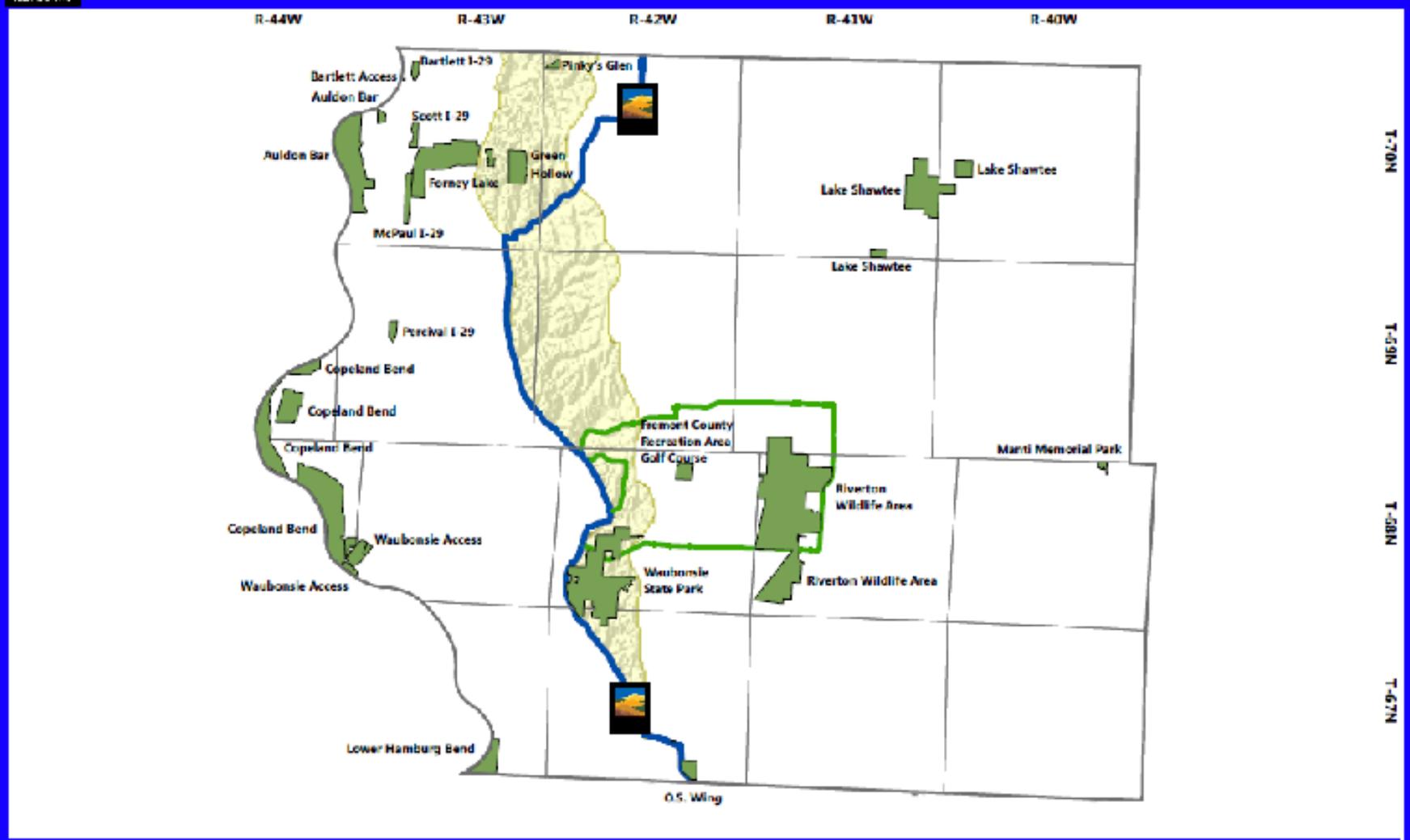
Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skiiing	Undeveloped Area	Missouri River Access	Scenic Overlook	Owner
Bass Memorial Park	9		x		x	x																County
Folsom Lake																						
Folsom Pointe Prairies	100																x					State
Foothill Park	45		x			x						x										State
Glenwood Lake Park	12		x	x	x	x	x	x	x		x					x						City
Hay 34 Roadside Park	1		x			x																County
Keg Creek I-29	104															x						State
Lake George	7																					County
Mile Hill Lake	47									x	x				x	x				x		County
Noddema n Island	1232																		x			Federal
P.L.I. 2B	34															x						State
Pony Creek Park	50		x	x	x	x		x	x		x				x							County



Recreational Resources Fremont County, IA

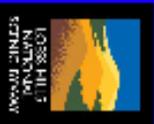
Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Postawattamie County GIS Department



	Loess Hills Scenic Byway Spine		Township Line
	Loess Hills Scenic Byway Loop		Recreation Area
			Loess Hills Landform Region





Loess Hills Scenic Byway Recreational Resources

Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hill Natural Conservation & Development

Approved by Board of Supervisors, Fremont County, IA Department

Name	Acres	Info Center	Picnic	Electricity	Drinking Water	Restrooms	Playground	Tent Camping	Trailer Camping	Interpretation	Hiking	Biking	Equestrian	Boating	Swimming	Fishing	Hunting	Skating	Undeveloped Area	Missouri River Access	Scenic Overlook	Owner	
Audon Bar	506																		x			Federal	
Bartlett Access	2													x		x				x			State
Bartlett -D29	57																x						State
Copeland Bend	469																x						State
Forney Lake	1128																x						State
Fremont County Recreation Area	150				x	x	x																County
Green Hollow	241																x						State
Lake Shawnee	690																x						State
Lower Hamburg Bend	2500														x	x				x			Federal
Mand Memorial Park	12		x																				County
McPau/29	166															x	x						State
Pencil/J29	80															x	x						State

Understanding the Human Quality

Definition of Human Quality

As the work of preparing the Loess Hills National Scenic Byway Corridor Management Plan proceeded a seventh intrinsic quality became apparent: the human quality. Some might refer to it as “social capital” - the collective ability of people living in communities to devise and implement effective strategies to deal with local problems and opportunities. This human intrinsic quality is reflected through the attitudes and actions of residents, private organizations and public agencies. Indeed, the human quality goes far beyond local pride and is manifested in actions that will have long lasting effects on the intrinsic qualities of the Loess Hills. In preparing this Corridor Management Plan, numerous examples were discovered of how people acting in positive ways for the good of their communities embraced the concepts of Scenic Byway Corridor management.

What do we know?

The Loess Hills are influenced as much by human actions as by natural processes (Mutel 174, 1989). Today, as in the past, many residents of the Loess Hills derive their living from the land. Farm fields, orchards, pastures, quarries and real estate development are evidence of this dependence on resources in the Loess Hills. As one looks across the landscape of Iowa's Loess Hills there are visible signs of human activities that have had both negative and positive impacts on these resources.

Humans can live in, and use the resources of, the Loess Hills without negatively impacting the region's intrinsic qualities. For this to happen, residents and public officials must be encouraged to preserve and manage wisely the resources they own and control. Many people in the Loess Hills recognize the value of the region's resources. A growing number of residents are aggressively seeking to raise public awareness of the need to protect, enhance and properly manage these resources.

Demographics in the Loess Hills National Scenic Byway Corridor

Information about population in the seven counties in the Loess Hills can help to understand the impacts that human activities have on intrinsic qualities in the Scenic Byway Corridor. According to US Census Bureau data, between 2000 and 2010 (US Census, 2010):

- County-wide population declined in four counties and increased in three;

- The largest city in the Loess Hills, Sioux City, had a population decrease of 2.7%, while the second-largest city, Council Bluffs, increased by 6.8%;
- Population decreased in most of the rural areas, especially those more than 30 miles beyond Sioux City and Council Bluffs;
- Monona and Fremont, the counties with the smallest and most rural populations, had the largest declines, at 7.8% and 7.1%, respectively;
- Only Plymouth, Pottawattamie, and Mills Counties had overall county population increases due largely to suburban development.
- Population for each county as of the 2010 Census, with the percentage change since 2000, are as follows:

County	2010 Population	Percent Change
Plymouth	24,986	+0.6%
Woodbury	102,172	-1.6%
Monona	9,243	-7.8%
Harrison	14,928	-4.7%
Pottawattamie	93,158	+6.2%
Mills	15,059	+3.5%
Fremont	7,441	-7.1%

Attitudes of Residents in the Loess Hills National Scenic Byway Corridor

Residents in the Loess Hills are concerned about land use and resource protection issues. A survey designed to assess local attitudes about resources in the Loess Hills revealed the following with regard to the attitudes of residents in the Scenic Byway Corridor (Landscape Resource Study Figure 11, 1994):

- 78% percent have lived in the Loess Hills for a long time (over 10 years), 87% own property, and 85% like where they are living and plan to stay (over 10 years);
- 63% are most interested in protecting and preserving pioneer cemeteries, scenic areas (62%), native prairies (60%), rare and endangered plants, animals and their habitats (60%), and archaeological sites (58%);
- 73% percent favor preserving the natural and rural character of the Loess Hills even if it means slower population growth and economic development;
- 77% support county-level land use regulations that would help protect the natural environment in the Loess Hills;
- 87% percent support regulations that would protect the scenic qualities of the Loess Hills;

- 73% percent of residents favor the use of property tax exemptions to protect land in native prairie;
- 71% percent would like to see the number of recreational opportunities such as camping and hiking increase in the Loess Hills;
- 92% would not like to see any increase in the number of quarries in the Loess Hills;
- 70% would not like to see any increase in residential, commercial, or industrial development in the Loess Hills;
- 87% of residents agree that development in the Loess Hills should be directed toward areas where damage to the environment is minimized; and
- 94% agree on the need for conservation practices to prevent erosion on agricultural land in the Loess Hills.

Actions of Residents in the Loess Hills National Scenic Byway Corridor

In addition to the creation, development and management of the Scenic Byway itself, special mention should be made of additional efforts undertaken by local residents that highlight their interest in, and commitment to, the protection and proper management of the Loess Hills.

Loess Hills Prairie Seminar: For over 40 years, local residents have organized and held the Loess Hills Prairie Seminar in early June. The three-day event has grown steadily in popularity over the years and currently attracts hundreds of participants. Open without charge to the public, the purpose of the seminar is to acquaint people with the wonders of the Loess Hills. The seminar offers nature walks and talks by experts on the ecology, geology, plant and animal species and history in the Loess Hills.

Loess Hills Hospitality Association: The Loess Hills Hospitality Association is a community-based effort to attract and entertain visitors to Iowa's Loess Hills. The Association conducts marketing activities and arranges tours and special events for travelers in the Scenic Byway Corridor. Association membership consists of local businesses, community groups, cities and counties in the Loess Hills.

Private Nonprofit Organizations: The Iowa Chapter of The Nature Conservancy, Iowa Natural Heritage Foundation, and Iowa Prairie Network are private nonprofit conservation organizations recognized and supported by residents for providing leadership in protecting and managing wisely resources in the Loess Hills. Local groups such as the Loess Hills Preservation Society in Council Bluffs provide a means for residents to effectively address local issues of concern that impact the Loess Hills.

What needs to be done?

The attitudes and actions of residents in the Loess Hills demonstrate an increased awareness of, and growing concern for, the intrinsic qualities of the Scenic Byway Corridor. Public communication and education efforts will be the key to maintaining and expanding this interest and involvement of local residents. Specific actions included in the "Corridor Development Actions" section of the Corridor Management Plan address the need to:

- Improve the public's awareness and understanding of the unique intrinsic qualities of the Loess Hills National Scenic Byway Corridor; and
- Improve and maintain communication activities that inform the public about, and encourage their support of and involvement in, efforts to protect, enhance and manage resources in the Loess Hills.

Understanding Tourism

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Tourism and Scenic Byways

Over three-fourths of Americans prefer pleasure driving as their chosen recreational activity. Tourism, with regard to scenic byways, offers travelers the opportunity to experience the byway corridor's intrinsic qualities. The tourists' experience consists of the anticipation, use and memories of their visit to the scenic byway and its associated attractions, events, amenities and resources (Levin xii,1988).

Travel on a scenic byway can translate into real economic benefits for communities along its path. These benefits are derived from tourist expenditures, leading to income and employment for travel and tourism-related



M. Whye

businesses and tourist-generated tax revenues. Tourism-related economic benefits from scenic byways can also contribute to an improved quality of life in communities through which they travel. The actions of residents to attract, and provide products and services to, visitors frequently enhances the amenities (developed site facilities), resources and visual attractiveness of local communities and surrounding areas. In addition to drawing visitors, these enhancements can help communities attract and retain new residents and businesses (Scenic America 8-11, 1995).



Dorothy Pecaut Center, Woodbury County Bird Watchers

Tourism and the Loess Hills National Scenic Byway

Sharing the intrinsic qualities of Iowa's Loess Hills with visitors provides opportunities to tell the story of the resources and people of the Scenic Byway Corridor. Presenting this story provides opportunities for tourism-based economic and community development and increased public appreciation of the Loess Hills. Tourism-based economic development opportunities associated with the Loess Hills National Scenic Byway take the form of expanding existing businesses and new businesses that provide goods and services to travelers. At the same time, increased tax revenue from tourism-related activities supports improvements to public facilities and infrastructure in communities and rural areas.

Tourism will contribute to increased support for preserving and enhancing the intrinsic qualities of the Loess Hills National Scenic Byway Corridor. The benefits of tourism for local communities and economies will be a strong incentive for residents, businesses and public officials to protect and manage resources in the Scenic Byway Corridor that attract visitors. Tourism will foster a greater awareness among residents and visitors of the uniqueness of the Loess Hills. A better understanding of the value of resources in the Loess Hills will generate support inside and outside of the Scenic Byway Corridor for their protection.

Economic Impact of Tourism in the Loess Hills

The popularity of the Loess Hills as a tourist attraction has generated interest in the economic impact of tourism in the region. At the request of local communities, economic development organizations, and conservation groups, ISU's Department of Economics studied the economic impact and valuation of recreation in the Loess Hills in the summer and fall of 1995. The study surveyed visitors to attractions in the Loess Hills to determine the amount and nature of visitor expenditures and the economic value that travelers place on recreational trips in the region. The expenditures of travelers were also used to estimate the employment effects generated by tourism in the Loess Hills as well as the overall economic benefits of recreation in the region (Alexander et al. 3-6, 1997).

Among the most significant findings from the ISU study and the 2015 Iowa Department of Tourism Welcome Center Survey were the following:

- 72% of travelers in the Loess Hills lived within 100 miles (200 mile round-trip) of the Scenic Byway Corridor. Travelers from within 100 miles averaged considerably more trips per year to the Loess Hills (over 9) than those who lived more than 100 miles away (less than 2);
- Most travelers to the Loess Hills visited several attractions during each of their trips to the region. DeSoto National Wildlife Refuge was the attraction most frequently visited by travelers on any given trip to the region;
- 77% of visitors to the Loess Hills traveled by car. The percentage of visitors traveling by car were similar for those who lived within 100 miles and more than 100 miles from the Loess Hills. Less than 5% of visitors traveled by either motorcoach or recreational vehicle to the Loess Hills;
- Average party size for visitors not traveling by motorcoach was 2.4 adults and 0.6 children for those who lived within 100 miles and 2.5 adults and 0.5 children for those who lived more than 100 miles away. Motorcoach travel parties averaged 30 adults and 1.5 children for those who lived within 100 miles and 35 adults and 0.14 children for those who lived more than 100 miles away;
- Visitors preferred less developed amenities in a natural setting such as scenic overlooks, walking and hiking trails, picnic areas, and signs and displays about sites of interest. A greater percentage of visitors indicated that golf courses, hotels and motels would reduce their enjoyment than those who felt that these types of amenities would add to their enjoyment;



Hitchcock Nature Center, Pottawattamie County

- Visitors to the Loess Hills were evenly divided along gender lines, with 51.2% being males and 48.8% being females. The average age of visitors was 47.5 years. The average number of years of education for visitors was 15.1. Average household income of visitors was \$41,800. Over 50% of visitors were full-time employees and 24% were retired;
- Visitors spent an average of \$50.90 per travel party on each trip to the Loess Hills. This level of spending is significantly less than that estimated for visitors to Iowa in general as well as for other scenic byways in the United States;
- More than 1.1 million visitors or over 460,000 travel parties visited attractions each year in the Loess Hills National Scenic Byway Corridor. Considering most travelers visit more than one attraction during their trips, a conservative estimate of the annual number of visitors is 550,000 or about 230,000 parties; An estimated \$11.8 to \$23.6 million per year in visitor-related expenditures occurred in the Loess Hills National Scenic Byway Corridor. As a result of these expenditures between 231 and 462 jobs were supported by tourism and \$3.9 and \$7.9 million of total annual income was generated. Approximately two-thirds of those jobs were in retail trade, with another 30 percent in the services industry.

Economic valuation analyses determined that the additional value or worth that visitors place on each of their recreational trips to the Loess Hills, above their direct per trip expenditures, was between \$47 and \$65 per travel party. The analyses also found that a higher willingness to pay is affected positively by age and occurs for those visitors who find increased enjoyment during their trips from the availability of hiking trails, scenic overlooks, picnic areas, interpretive displays, camping facilities and visitor services such as restaurants, gas stations and lodging. The Loess hills National Byway continues to track visitor data and economic impact through annual surveys collected at State Welcome Centers along the Byway in partnership with Travel Iowa. This data tracks travel party size, interest areas and spending patterns. In 2015, it was estimated, based on this survey data, the Loess Hills National Scenic Byway contributed to more than \$22 million in tourism revenues for the region.

What needs to be done?

The ISU study provided information to help residents and public officials make improved decisions regarding the protection, enhancement and management of resources in the Scenic Byway Corridor. Actions presented in the “Corridor Development Actions” section of the Corridor Management Plan address the need to:

- Increase the availability of amenities that visitors indicate contribute most to their enjoyment of travel in the Loess Hills and that are associated with a higher willingness to pay expressed by visitors to the Loess Hills.

LOESS HILLS NATIONAL SCENIC BYWAY

Enjoy a drive on our 220-mile scenic byway where native prairies rise up to greet you and rugged and picturesque landscapes lead you to historic downtowns and rural villages with quaint shops and a host of attractions as unique as the Loess Hills themselves.

JOIN US FOR EXCITING 2015 AREA EVENTS:

May 8-16	Celebrate Council Bluffs. Variety of activities at Baylis Park www.councilbluffs.com 712.325-1000	June 18-20	Awesome Biker Night. Concerts by national and regional bands, motorcycle stunt performances, bike show, raffles, vendors. Historic 4th Street, Sioux City. www.awesomebikernights.com 712.224-9759
May 16 - Oct 10	DeSoto Ridge Family Fishing Days. Saturdays, May through October. Fishing demonstrations with picnic and bait provided. Missouri Valley www.ho.gov/Desoto (See Events Calendar) 712.388-4800	July 2	Maui Grog. Festivals and Big Parade. Authentic costumes, Cajun food & fun. Maui Grog style parade, bands, floats. Saturday in the Park, free outdoor music festival. www.visitmaui.org 800.593-2228
May 19 - Sept 15	Hitch Hikes at Hitchcock Nature Center. Third Tuesday of the month www.parksandconservation.com (See calendar of events) 712.545-3283	July 11	Broken Kettle Grasslands 5th Annual Bison Day. Bison viewing, hayrack rides, scavenger hunt, conservation workshops and more. www.nature.org/loess (See Field Trips and Events) 515.244-5044
May 29-31	Loess Hills Prairie Seminar. Loess Hills Wildlife Area, NE of Ottawa www.mooc.k12.ia.us (See programs and services)	July 28 - Aug 1	Sidney Championship Rodeo Outdoor Rodeo & entertainment www.sidneyrodeos.com 712.374-2495
June 4-25	Free Music in the City Park. Every Thursday in June www.missourivalleyband.com 712.442-2533	Aug. 22	Oronoke. Largest one day bike ride in the state through the scenic Loess Hills, with choice of routes. www.ironmeat.com 712.423-1801

Spine and Excursion Loops

- Scenic Byway Spine
- Scenic Byway Loop
- Highways
- Loess Hills Landform
- Welcome Centers

THE GREAT OUTDOORS
Like Never Before. Iowa's Loess Hills.

www.visitloesshills.com | www.visitwesterniowa.com | www.loesshillsalliance.com

Hike, BIKE, drive, play and STAY

For a Recreation Map, Birding, Motorcycle or RV guide, contact Western Iowa Tourism Region at 888-623-4232 or e-mail info@visitwesterniowa.com

Marketing Tourism in the Loess Hills

Driving scenic byways has become an increasingly popular tourism activity in Iowa. This increased interest is both the result and focus of marketing efforts that emphasize the state's scenic byways. Growth in marketing activities for the Loess Hills National Scenic Byway has generated interest regarding the scope, direction and effectiveness of these efforts. The Western Iowa Tourism Region, a non-profit organization that consists of private and public business, economic development, community and conservation entities interested in tourism in western Iowa, conducted an assessment of current marketing activities in preparing to develop a marketing plan for the Loess Hills National Scenic Byway.

The Loess Hills Alliance Economic Development Committee has played a significant role in financially supporting marketing efforts to promote the Loess Hills National Scenic Byway, including cooperative advertising, ongoing production of the Loess Hills Visitors Guide, specialty brochures on motorcycling, birding and camping, as well as the website www.visitloesshills.org.

What do we know?

Among the most significant findings from the Tourism Region's assessment were the following:

- Marketing activities for the Loess Hills were being supported and conducted primarily by seven entities. These major marketers include the Division of Tourism of the Iowa Economic Development Authority, the Western Iowa Tourism Region, the Council Bluffs Convention and Visitors Bureau, the Sioux City Convention and Visitors Bureau, the Harrison County Welcome Center in Missouri Valley, the Sergeant Floyd Welcome Center in Sioux City, the Loess Hills Hospitality Association in Moorhead; and, Western Iowa Development Association/Watta Way.

- These major marketers spent more than \$175,000 annually on marketing activities related to the Loess Hills. Principle marketing activities included participating in group and consumer travel shows; conducting familiarization tours; developing and distributing printed information for visitors; and advertising, primarily in print media;
- Marketing activities were directed toward the group travel market. Major marketers currently participate in eleven regional marketplaces, two national marketplaces and two international marketplaces for group travel (Kansas City, Quad Cities, Minneapolis, St. Louis, Des Moines, Omaha, Chicago, Milwaukee, Sioux Falls, Denver, Salt Lake, National Tour Association, American Bus Association, Ontario, Pow Wow International). Marketers also participated in two Midwestern marketplaces for consumer travel (Des Moines and Omaha);
- Visitor services including food, restrooms, public phones, lodging, gas, automobile repair, and medical attention are readily available to travelers at a number of the communities in the Scenic Byway Corridor including the cities of LeMars, Sioux City, Onawa, Missouri Valley, Council Bluffs, Glenwood, and Hamburg; and
- Coordination of the Loess Hills related marketing activities is coordinated through a collaborative effort of the Loess Hills National Scenic Byway Council, byway management team, Western Iowa Tourism Region, and the Loess Hills Alliance Economic Development Committee.
- All major marketers agreed on the need to cooperate with one another in order to expand marketing activities for the Loess Hills and Scenic Byway.

What needs to be done?

Western Iowa Tourism Region’s assessment of marketing activities provides information to improve ongoing efforts to attract and provide products and services to visitors to the Loess Hills National Scenic Byway Corridor. Actions presented in the “Corridor Development Actions” section of the Corridor Management Plan address the need to:

- Sustain a marketing plan for the Loess Hills National Scenic Byway that creates a formal network for the exchange of information between marketing entities; ensures the availability of quality promotional materials; increases media coverage of attractions and events; includes the Byway in marketing performed by the state; balances the use of marketing resources between the group and consumer travel markets; and provides opportunities for cooperative marketing activities.

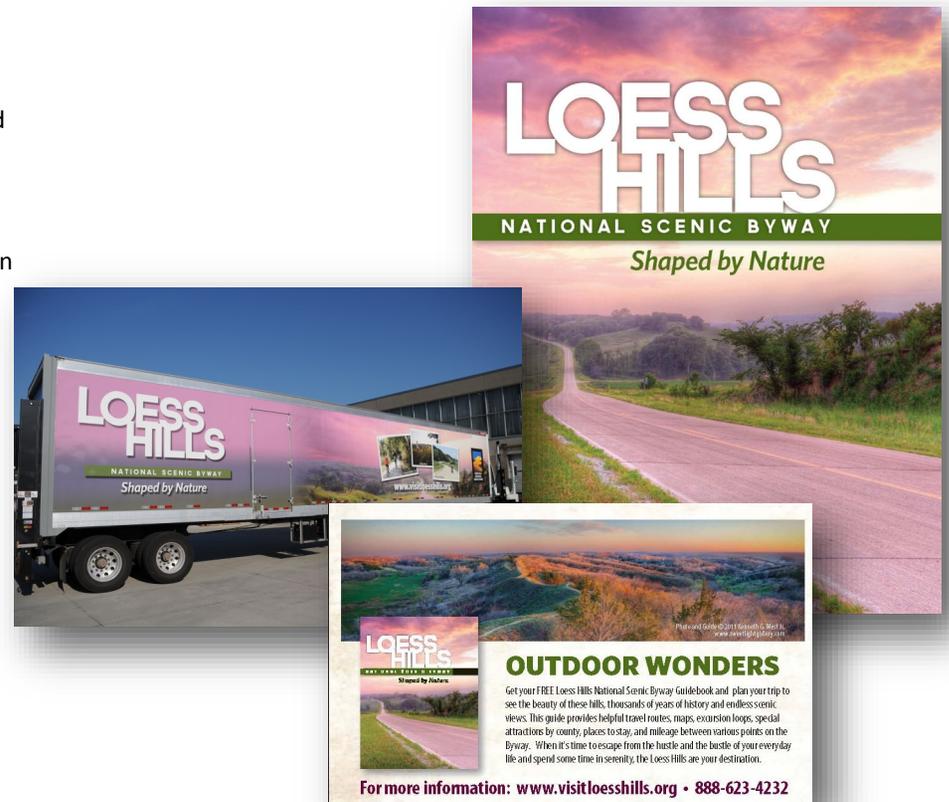
Maps and Tables

Major Cities/Markets

Iowa Welcome Centers

Traveler Services - Map

Traveler Services - Table





Major Cities / Markets

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pettawattamie County GIS Department



-  Major Cities
-  Loess Hills Landform Region
-  Major Rivers



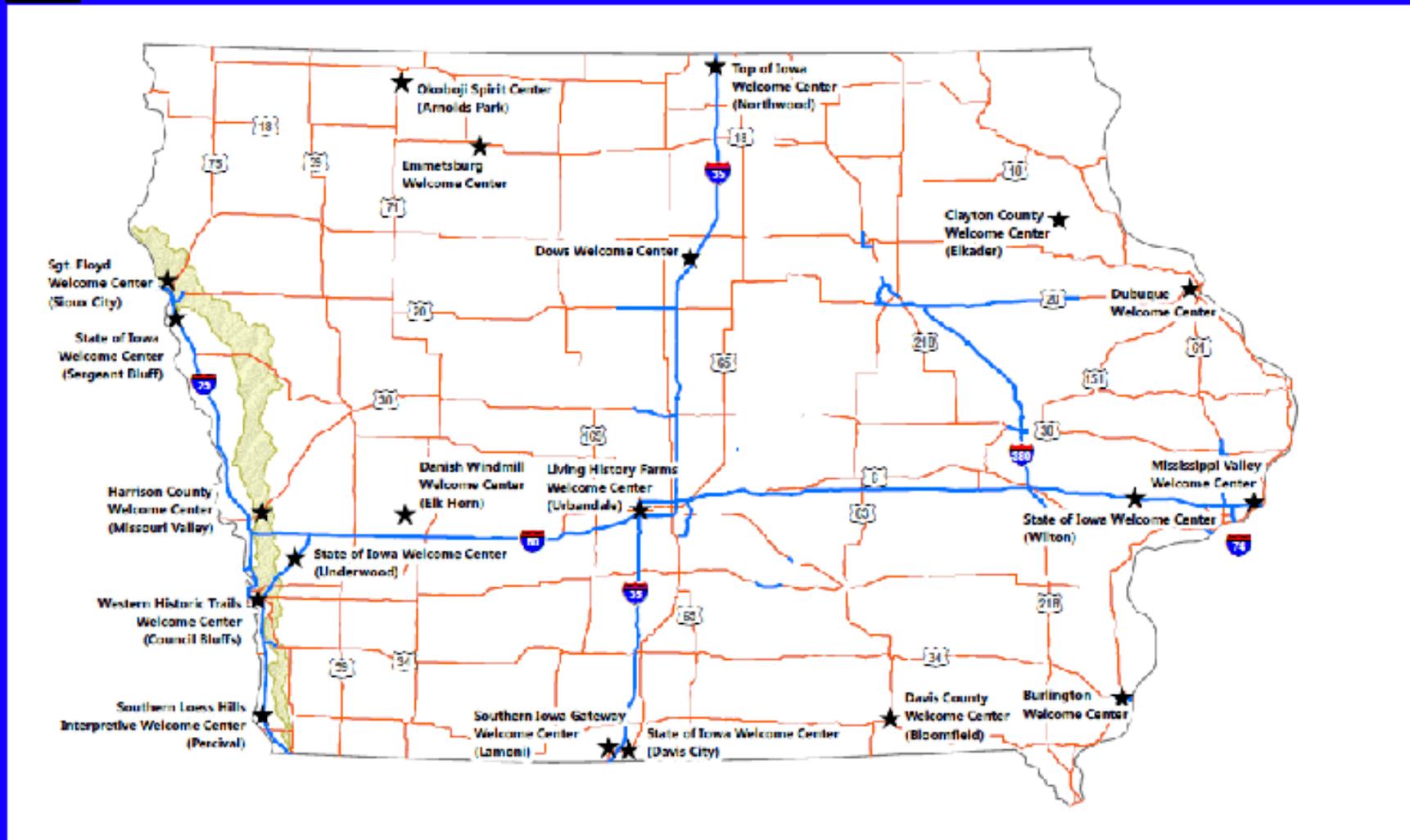


Iowa Welcome Centers

State of Iowa

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Iowa Welcome Centers



Loess Hills Landform Region

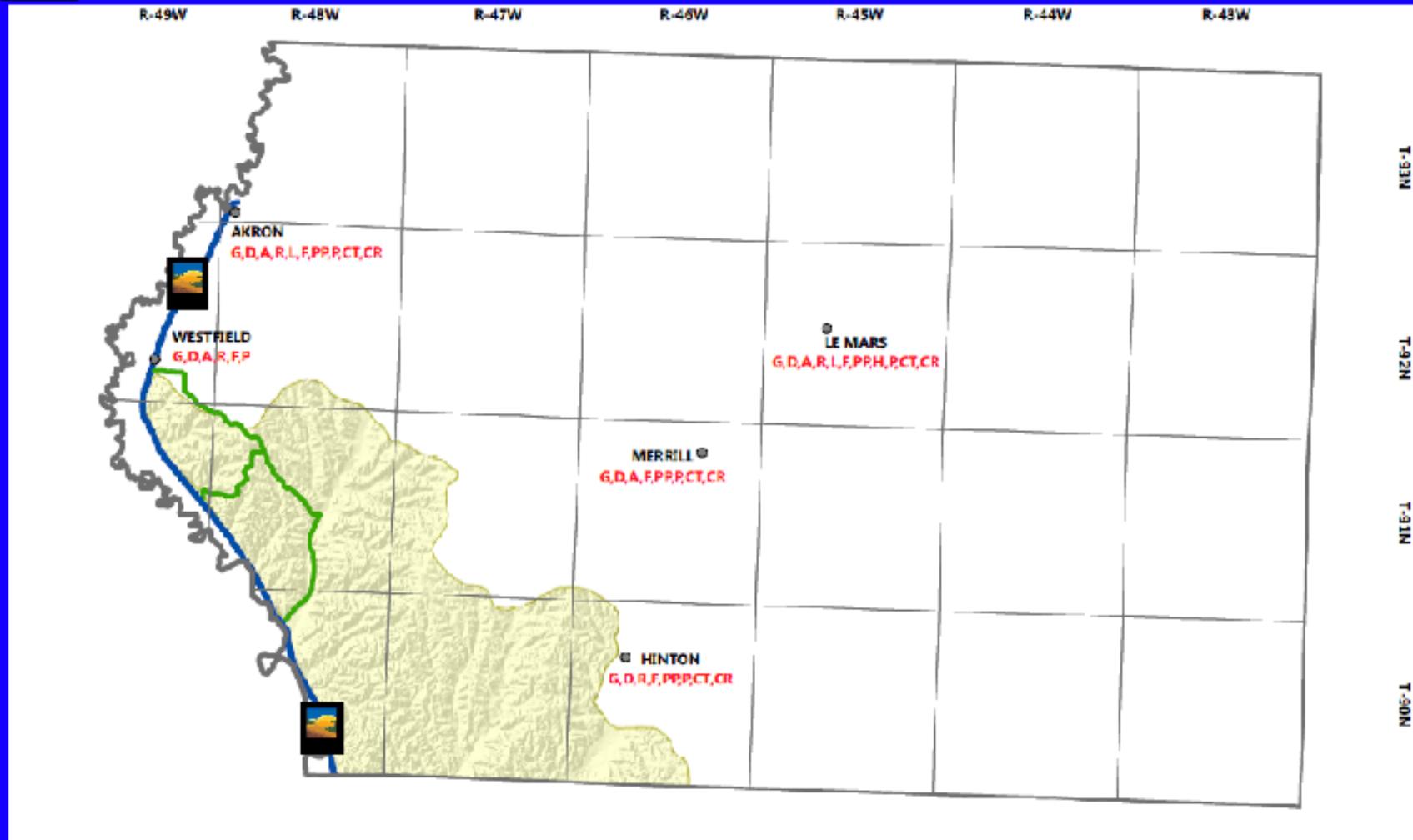




Traveler Services Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Polk/Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- G** Gas **A** Auto Service **L** Lodging **PP** Pblc Phone **CR** Camping RV **P** Picnic
- D** Diesel **R** Restrooms **F** Food **H** Hospital **CT** Camping Tent

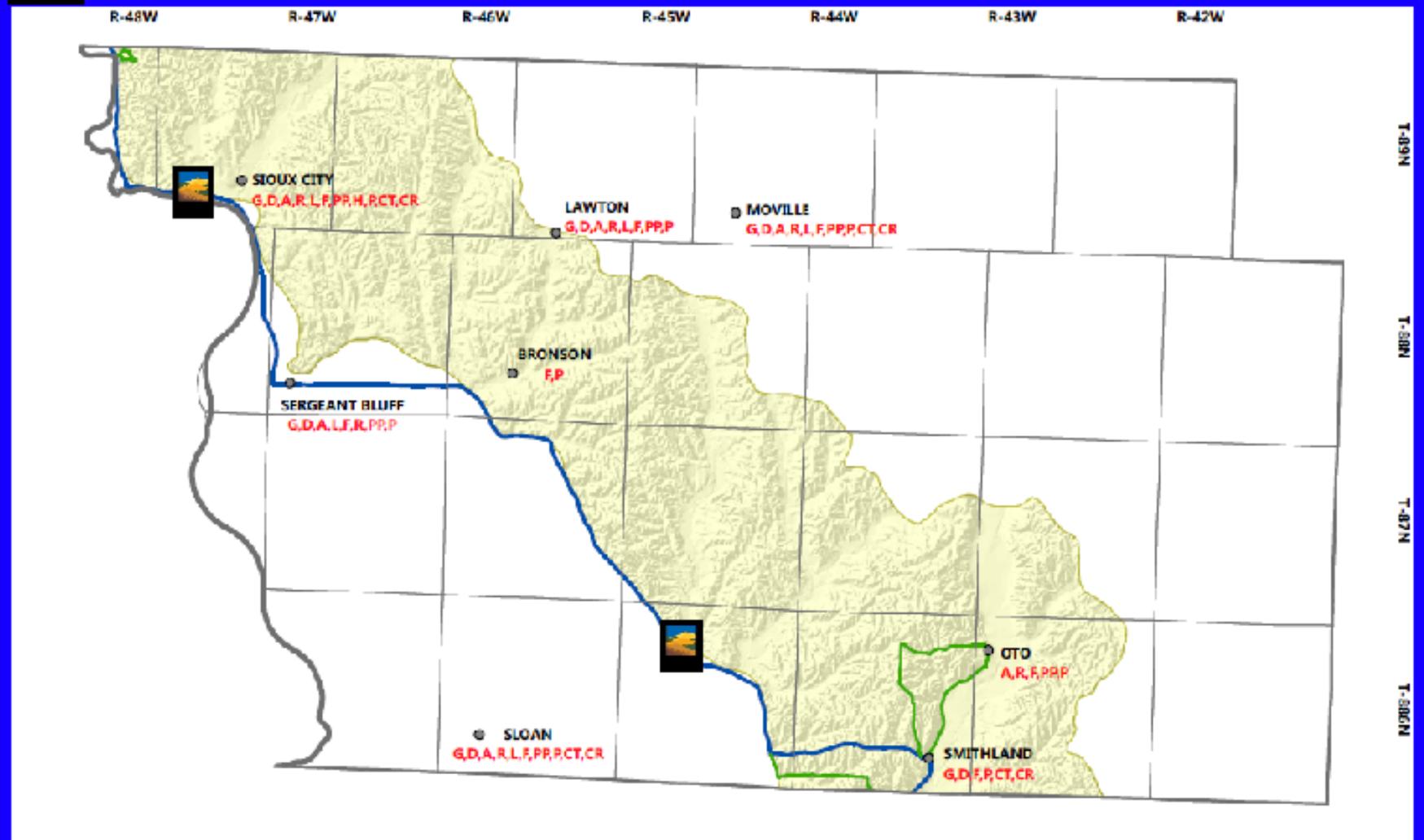




Traveler Services
Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- G** Gas **A** Auto Service **L** Lodging **PP** Pblc Phone **CR** Camping RV **P** Picnic
- D** Diesel **R** Restrooms **F** Food **H** Hospital **CT** Camping Tent

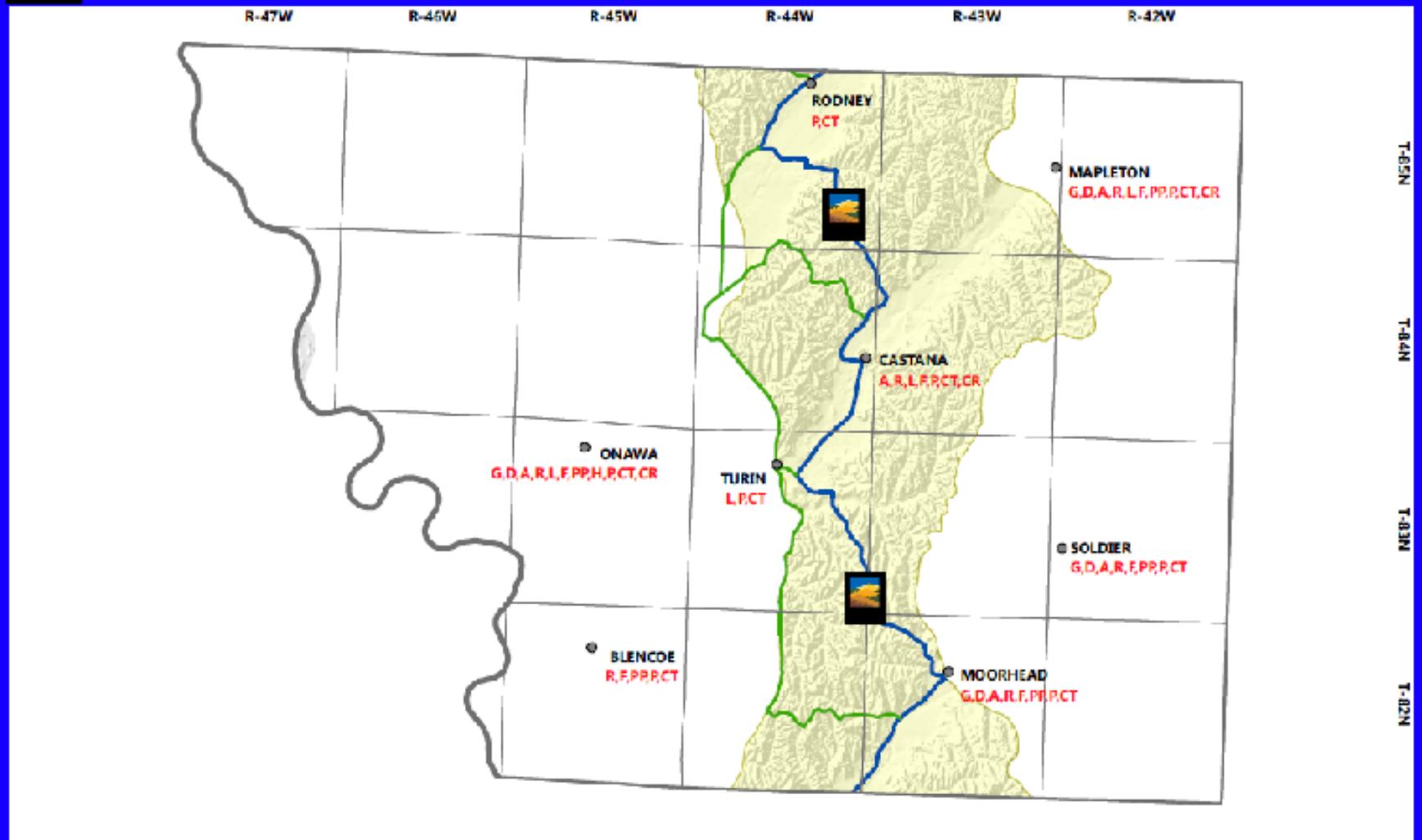




Traveler Services
Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Township Line
Loess Hills Scenic Byway Loop	Loess Hills Landform Region
G Gas A Auto Service L Lodging PP Public Phone	CR Camping RV P Picnic
D Diesel R Restrooms F Food H Hospital	CT Camping Tent

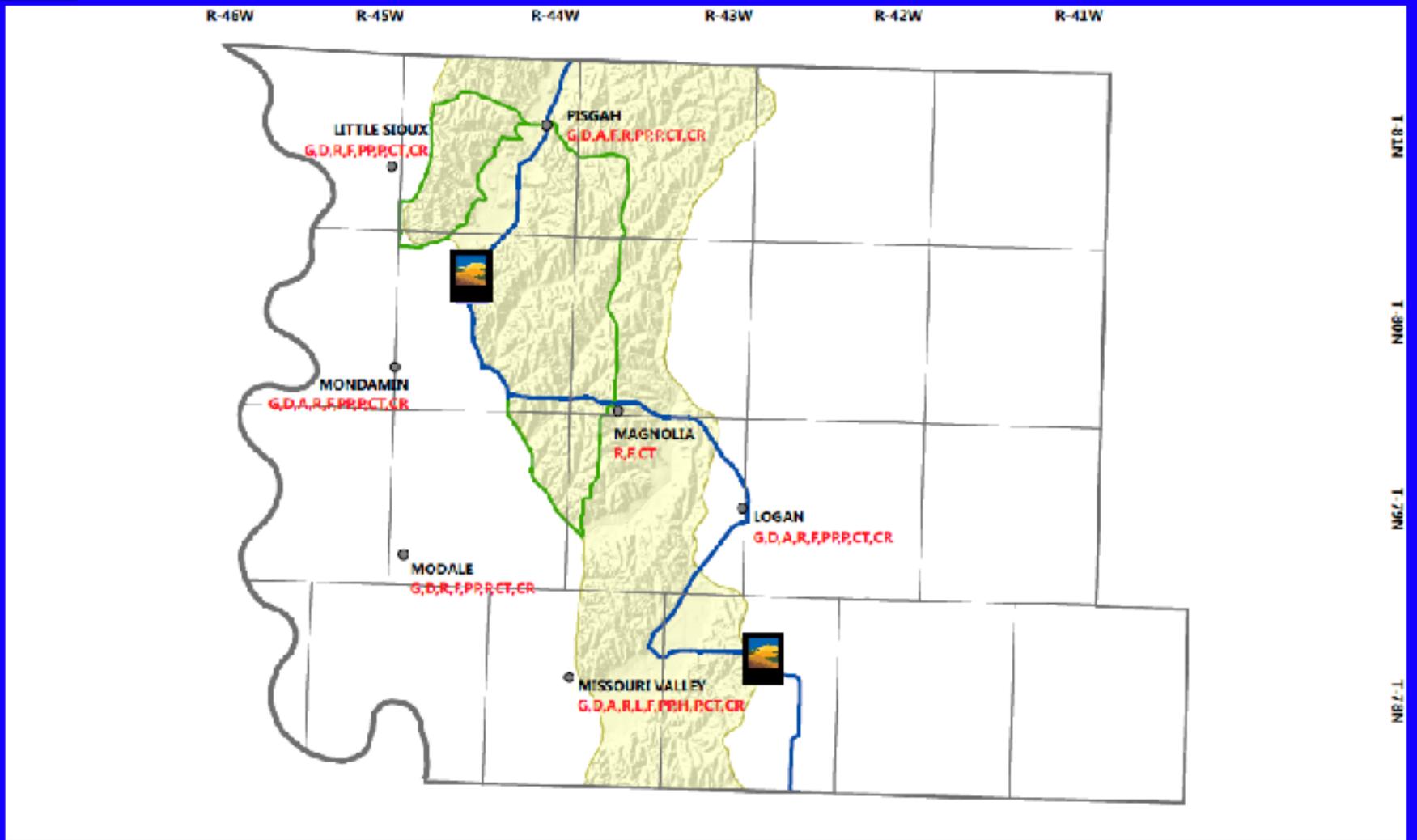




Traveler Services
Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
- G** Gas **A** Auto Service **L** Lodging **PP** Public Phone **CR** Camping **RV** Picnic
- D** Diesel **R** Restrooms **F** Food **H** Hospital **CT** Camping Tent
-  Township Line
-  Loess Hills Landform Region

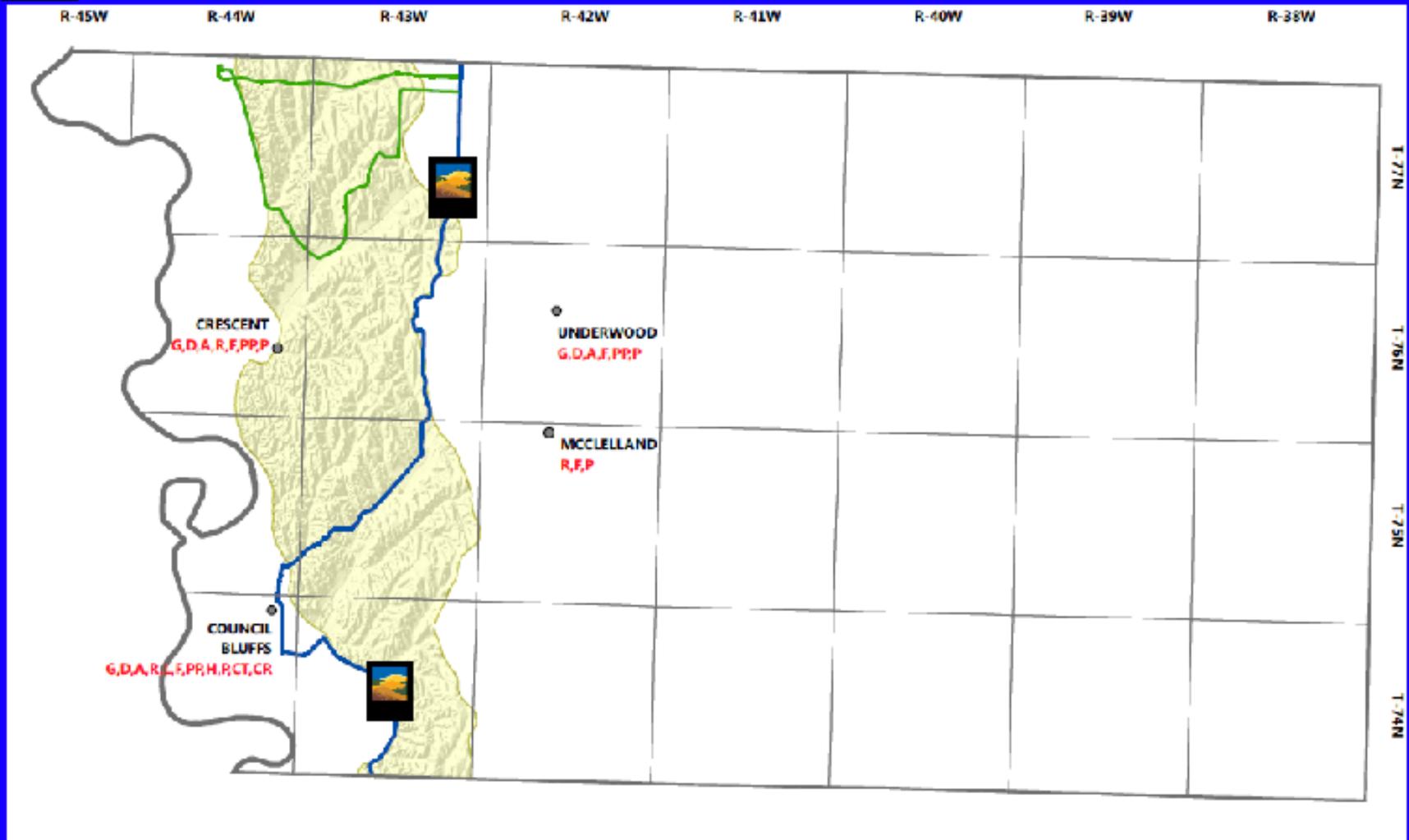




Traveler Services Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Township Line
- G** Gas **A** Auto Service **L** Lodging **PP** Pblc Phone **CR** Camping RV **P** Picnic
- D** Diesel **R** Restrooms **F** Food **H** Hospital **CT** Camping Tent

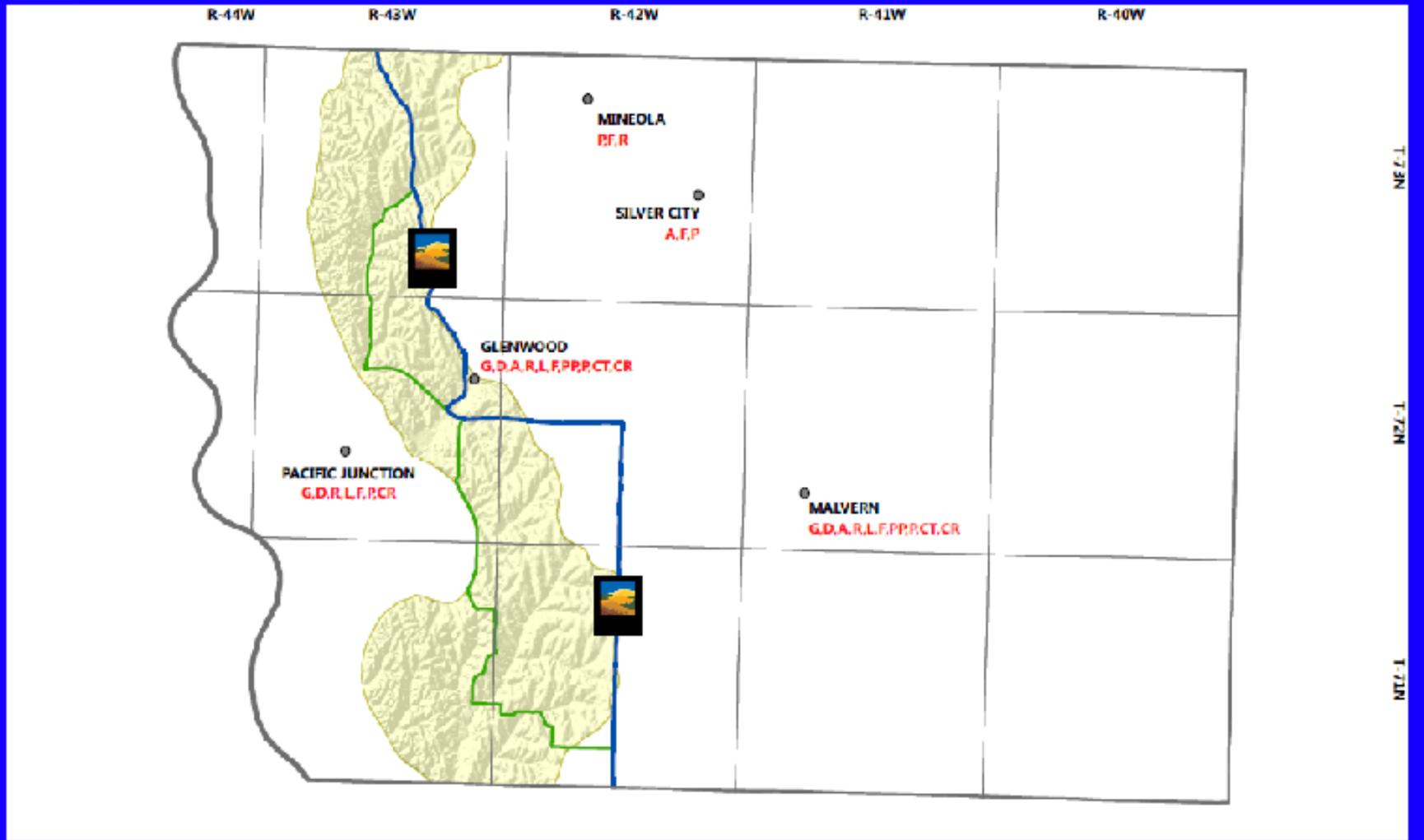




Traveler Services Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- G** Gas **A** Auto Service **L** Lodging **PP** Pblc Phone **CR** Camping **RV** Camping RV **P** Picnic
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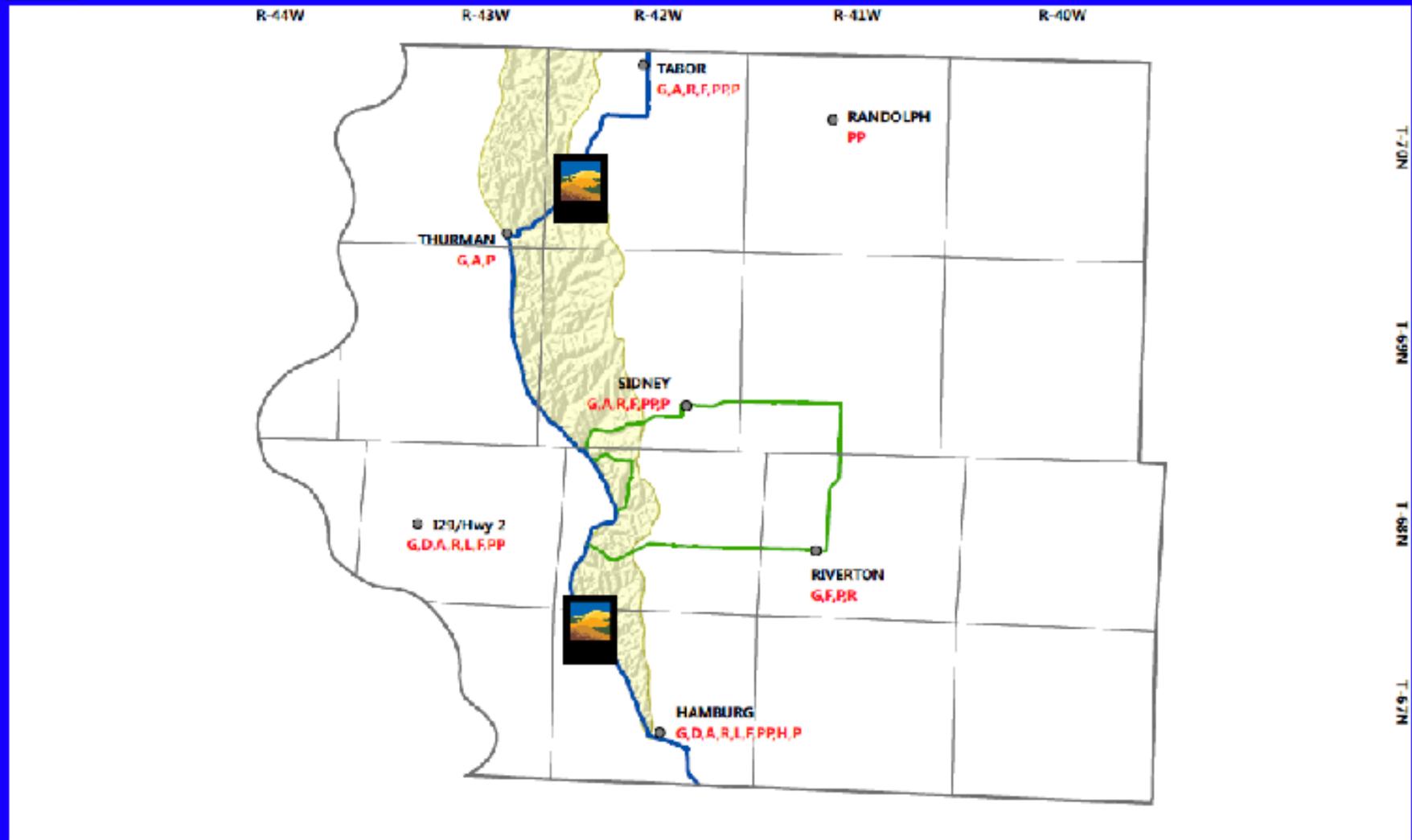




Traveler Services
Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
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Corridor Development Actions

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Introduction

The previous sections of the Corridor Management Plan provide an understanding of the special resources or intrinsic qualities of the Loess Hills National Scenic Byway Corridor. In doing so, specific needs were identified regarding the development, management, and protection of these intrinsic qualities. This section, “Corridor Development Actions,” presents the action plan for addressing these needs. The recommended actions fall under three categories:

- Public Facilities Improvements;
- Land Use Strategies; and
- Ongoing Management Activities.

Public Facilities Improvements are, for the most part, physical improvements that affect the Scenic Byway and public land and facilities associated with the Corridor. Many of these actions may require public funding and should become part of state, county and city capital improvement plans. These actions will:

- Improve existing and add new amenities;
- Implement a comprehensive sign system;
- Establish bicycle routes and attendant facilities; and
- Develop interpretive programs and projects.

Land Use Strategies involve actions that protect public and private property in the Loess Hills National Scenic Byway. The overall purpose of the various land use strategies is to protect the intrinsic values in the Loess Hills National Scenic Byway Corridor.

Ongoing Management Activities are those which are routinely needed to ensure that:

- Intrinsic qualities of the Scenic Byway Corridor are maintained and enhanced;
- Concerns and desires of Scenic Byway Corridor travelers are understood and addressed; and
- Business opportunities in the Scenic Byway Corridor are recognized and developed.

This section concludes with an implementation matrix for the Corridor Management Plan which prioritizes the specific actions and assigns responsibilities for their completion.

Corridor Amenities

One of the greatest challenges to the management and protection of resources in the Loess Hills National Scenic Byway Corridor is to maintain a mutually beneficial relationship between tourism and conservation. The recreational use of resources in the Loess Hills encourages a greater understanding and appreciation of their uniqueness and value. At the same time, managing recreational activities to avoid any negative impacts on resources can be a challenge. Several problems can occur when fewer amenities are available for public use than are needed to meet demand. A lack of amenities to support recreational activities may result in trespassing on, and damages to, private land and property. Inadequate amenities can result in overuse of available sites and degradation of sensitive areas.

In order to determine the adequacy of amenities in the Loess Hills National Scenic Byway Corridor and develop recommendations for improvements and additions, the following was completed:

- Research on public recreation preferences and demand;
 - Evaluation of existing public amenities; and
 - Development an application of an amenity spacing model.
- Public Recreation Preferences and Demand

Several sources of information contributed to understanding public preference and demand for amenities in the Loess Hills National Scenic Byway Corridor. This information was gathered through surveys of residents and visitors and assessments of available amenities in the Scenic Byway Corridor and Iowa. These information sources and the most significant findings are:

- A survey conducted during the initial development of the Loess Hills National Scenic Byway identified sightseeing (84%), visiting wildlife areas or prairies (80%), picnicking (78%), visiting historic sites (72%), shopping and restaurants (75%) and outdoor education (75%) as recreational activities of greatest interest to the public;

The most recent Iowa Statewide Comprehensive Outdoor Recreation Plan identified several recreational facility deficiencies in different regions of the Scenic Byway Corridor. These included equestrian trails (north region), foot trails (north and south regions), bike trails (north, middle and south regions), handicapped-accessible facilities (south region), archaeological sites (north, middle and south region), modern camping facilities (south region) and non-

modern camping facilities (north and south region); The results of Welcome Center Surveys conducted by the Iowa Economic Development Authority's Department of Tourism identified the following activities as those of greatest interest to the traveling public; sightseeing, historic sites, camping, shopping, museums, bicycling, fishing, outdoor education, hiking and hunting;

Scenic preference testing conducted in developing this Corridor Management Plan questioned residents and visitors about their recreational preferences. Recreational activities of greatest interest identified included sightseeing, eating in restaurants, historic sites and attractions, bicycling, picnicking, shopping, outdoor education, bird watching, fishing, hunting and golf.

Analysis of the economic impact and valuation of recreation in the Loess Hills conducted as part of the Corridor Management Plan asked travelers to identify those amenities that would most add to their enjoyment while traveling in the Scenic Byway Corridor. Amenities identified included interpretive signs or displays (87%), wildlife or prairie areas (86%), walking and hiking trails (84%), cultural or historic sites (83%), scenic overlooks (76%) and picnic areas (75%). These sources of information provide a strong indication of the recreational preferences and demand of the traveling public. This information has been used to evaluate the adequacy of existing, and the need for additional, amenities in the Loess Hills National Scenic Byway Corridor.



Sergeant Floyd Riverboat Museum, Sioux City

D. Poggensee

Evaluation of Existing Public Amenities

An extensive inventory and evaluation was conducted of existing amenities in the Loess Hills National Scenic Byway Corridor. This work assessed the current condition of these amenities. The inventory and evaluation examined in detail the full range of features and accommodations of importance to the traveling public including:

Access highways and roads
Entrance drive and parking area
Lighting
Power and water supplies
Off-site directional signs
On-site identification signs
Sidewalks
Buildings
Restrooms
Trails

Scenic overlooks
Interpretive signs
Picnic facilities
Shelters
Trash cans
Camping facilities
Fishing facilities
Boating facilities
Landscape features

The results of this inventory and evaluation were used to develop recommendations for enhancing existing, and providing additional, amenities in the Loess Hills National Scenic Byway Corridor.

Geographic Distribution of Public Amenities

A spacing model attempted to optimize the distribution of amenities in the Loess Hills National Scenic Byway Corridor. The model took into consideration:

- Recreational preferences and demands of the traveling public;
- Location of existing public amenities and the facilities available;
- Long-range development and management plans of state and county agencies; and
- Input from tourism and recreation professionals.

The model was used to analyze the availability of 14 different amenity types based on their geographic distribution throughout the Scenic Byway Corridor. Optimum distances for each amenity type were determined and expressed in terms of drive time. The need for an amenity was identified whenever estimated drive time between two existing amenities of the same type exceeded the model time by more than five minutes.

Amenity types and optimum drive times between amenity locations used in the spacing model are:

Amenities/Activities	Driving Time Between Activities/Amenities
Public restrooms	20 minutes
Camping facilities	40 minutes
Picnic areas	20 minutes
Scenic overlooks with interpretive signs	30 minutes
Historic sites	20 minutes
Welcome/information center facilities	90 minutes
Driving tour points of interest	10-15 minutes
Bird watching areas	60 minutes
Hiking trails	40 minutes
Remote, undeveloped wildlife areas	90 minutes
Interpretive and education activities or facilities	45 minutes
Public hunting/fishing areas	60 minutes
Equestrian trails	90 minutes



Westfield Interpretive Center, Plymouth County

Amenity Actions

Amenity Action #1

Recommendations for improving existing amenities in the Loess Hills National Scenic Byway Corridor were developed based on the research, evaluation and modeling activities described above. These recommendations address such items as:

- Improved off-site directional signs;
- Addition or improvement of site identification at entrances;
- Changes to entryway configurations for improved traffic flow;
- Safety improvements in parking surface and/or access road drainage and surface;
- Restoration of mown areas to native prairie;
- Tree plantings to shade parking areas;
- Review of handicapped parking locations;
- Repair to damaged sidewalks; and
- Vegetation screening where needed.

Specific recommendations for existing amenities in each county of the Loess Hills National Scenic Byway Corridor are listed below. ***Italicized items are minimum recommendations required to meet Corridor Management Plan objectives.***

Plymouth County

Broken Kettle Grassland

- *Add scenic overlook with interpretive panel - drive by style (no deck)*

Dunham Prairie Preserve

- Consider adding off-site directional signs guiding visitors to a parking area for the site

Five Ridge Prairie Area

- *Add picnic facilities*
- Consider adding site identification sign at entrance

Hillview Recreation Area

- Consider adding interpretive historic panel
- Consider restoring some of the mown area to native vegetation to reduce mowing needed
- Consider adding interpretive and education facility

Woodbury County

Bacon Creek Park

- Consider adding off-site direction signs guiding visitors to the park
- Consider restoring some of the mown area to native vegetation to reduce mowing needed

Iowa Welcome Center & Sergeant Floyd Riverboat Museum

- Enhance outdoor interpretive signs (river theme)

Inkapaduta Historical Marker

- *Expand interpretive historic panel on Native American theme*

Dorothy Pecaut Nature Center

- *Add hiking trails*
- Consider adding off-site directional signs guiding visitors to the area
- Consider additional outdoor interpretive signage

Riverside Bluffs Prairie Preserve

- Consider adding off-site directional signs guiding visitors to a parking area for the site
- Consider improvements to the entryway configuration for traffic safety
- Consider adding site identification sign at entrance

Sioux City Prairie Preserve

- Add off-site directional signs guiding visitors to a parking area for the site

Smithland Museum & Log Cabin

- *Add interpretive historic panels*
- Add site identification sign at entrance
- Improve parking area

Southwood Conservation Area

- *Upgrade/expand interpretive signs*
- *Add scenic overlook-drive-up style*

War Eagle Monument

- Consider adding interpretive signs

Monona County

Loess Hills Wildlife Area

- *Add historic interpretive signage on site or develop site at historic Areola town site near the area with signage*
- *Add scenic overlook - drive-up or hike to type*
- Consider adding off-site directional signs guiding visitors to the area

Oldham Recreation Area

- Consider restoring some of the mown area to native vegetation to reduce mowing needed

Preparation Canyon State Park

- *Add historical site interpretive signs at Preparation town site or other historic site*

Preparation Town Site

- *Transform into historical site with interpretive signs*
- Consider adding off-site directional signs guiding visitors to a parking area for the site

Savery Pond

- Consider restoring some of the mown area to native vegetation to reduce mowing needed

South Jordan Cemetery

- *Add interpretive signage*
- Consider adding off-site directional signs guiding visitors to a parking area for the site
- Consider adding site identification sign at entrance
- Consider expanding pull-off to accommodate more vehicles for parking

Turin Man Archeological Site

- *Update location sign*
- Consider adding off-site directional signs guiding visitors to a parking area for the site
- Consider restoring some of the mown area to native vegetation to reduce mowing needed

Harrison County

Charles Larpenteur Family Burial Site

- Consider adding site identification sign at entrance
- Consider adding off-site directional signs guiding visitors to a parking area on the site
- Consider adding interpretive signs

Murray Hill Scenic Overlook

- Consider improving visibility of site identification sign (relocate?)
- Consider improvements to the entryway configuration for traffic safety
- Consider adding picnic tables in shade near parking area

Sawmill Hollow

- Add interpretive signs (trail or panel)
- Add historic element (possible sawmill remnant)
- Consider improving access road drainage and surfacing
- Consider adding off-site directional signs guiding visitors to the site

Sioux Dam Fishing Access

- Consider improving access road/parking area drainage and surfacing
- Consider adding tree plantings to provide shading for parking area

Willow Creek Recreation Area

- Consider adding more off-site directional signs guiding visitors to the site



Harrison County Museum
& Welcome Center

Pottawattamie County

Bayliss Park

- Consider adding site identification sign at entrance

General Dodge House & Museum

- Review handicap parking and access to the house

Hitchcock Nature Area

- Develop historic site with additional interpretive panels (possible Native American theme)

Lincoln Monument

- Consider adding off-site directional signs guiding visitors to the site
- Consider repairing sidewalk cracks and damage

Pottawattamie County Squirrel Cage Jail

- Consider adding off-site directional signs guiding visitors to a parking area for the site

RailsWest Museum & HO Model Railroad

- Consider adding off-site directional signs guiding visitors to the site
- Consider improving parking by adding barriers and lot markings
- Consider providing handicap accessible restrooms
- Consider enhancing exterior by adding trees and shrubs

Ruth Ann Dodge Black Angel Memorial

- Consider adding off-site directional signs guiding visitors to a parking area for the site
- Consider providing signs identifying the on-street parking area

Scenic Overlook I-680

- Consider providing shading for picnic tables with trees
- Consider year-round access

Stempel Bird Collection

- Consider adding off-site directional signs guiding visitors to a parking area for the site
- Consider adding site identification sign at entrance

Wabash Trace Trailhead - Council Bluffs

- Consider adding off-site directional signs guiding visitors to the site
- Consider restoring some of the mown area to native vegetation to reduce mowing needed

Mills County

Chief Waubonsie Historical Marker

- Add hiking trail to monument
- Add parking area
- Add interpretive signage (panel)
- Consider adding off-site directional signs guiding visitors to the site
- Consider adding site identification sign at entrance

Foothills Park Archaeological Preserve

- Enhance/add more interpretive signs
- Consider adding more off-site directional signs guiding visitors to the park
- Consider adding site identification sign at park entrance
- Consider adding parking barriers to parking area
- Consider adding tree plantings to provide shading for parking area

Glenwood Lake Park & Mills County Historical Museum & Davies Amphitheater

- Consider restoring some of mown area to native vegetation
- Consider interpretive/education facility focused on Glenwood culture archaeology

Mile Hill Lake

- Consider adding parking barriers in parking area
- Consider adding restrooms and trash cans to site

Mormon Trail, Oregon Trail, and Dragoon Trail Historical Marker

- Consider improving parking area
- Consider restoring some of mown area to native vegetation
- Consider adding vegetation-screening along fence line to limit view

Pony Creek Park

- Consider restoring some of the mown area to native vegetation to reduce mowing needed

Salem Lutheran Church & Plummer Cemetery

- Add interpretive signage (panel - Early Settler theme & German heritage)
- Consider adding off-site directional signs guiding visitors to a parking area for the site
- Consider adding site identification sign at entrance
- Consider adding a small parking area

Wabash Trace Nature Trail Stop - Mineola

- Consider adding off-site directional signs guiding visitors to the site
- Consider adding site identification sign at entrance

West Oak Forest

- Add hike-to scenic overlook
- Consider adding off-site directional signs guiding visitors to the site
- Consider improvements to the entryway configuration for traffic safety



Pony Creek Park, Mills County

Fremont County

Fremont County Historical Museum

- Consider adding off-site directional signs guiding visitors to the museum

O.S. Wing Wildlife Area

- Consider improving parking area surfacing

Pinky's Glen

- Add hiking trails
- Add drive-up scenic overlook with interpretive signage
- Consider adding off-site directional signs guiding visitors to the site
- Consider adding site identification sign at entrance
- Consider improving entry drive drainage and surfacing
- Consider increased maintenance to improve appearance of the site

Riverton Wildlife Area

- Consider adding site identification sign at entrance

Reverend John Todd House Museum

- Consider adding off-site directional signs guiding visitors to a parking area for the site

Waubonsie-Wa-Shawtee State Park

- Add interpretive historic panels - (Native American culture or Loess Hills forest ecosystem theme)
- Convert lodge to interpretive/education center
- Develop trails to prairie ridges
- Add bathroom/shower facilities



Waubonsie State Park in autumn



Reverend John Todd House Underground Railroad site, Tabor

Amenity Action #2

Recommendations for amenity additions address deficiencies also identified through the research, evaluation and modeling activities. The location and number of proposed amenity additions considered need, geographic distribution and relevant development and management plans of state and county agencies. Proposed amenity additions include:

- Scenic overlooks
- Historic sites
- Picnic areas
- Restroom facilities
- Interpretive and educational sites
- Information centers

Amenity additions proposed for each county in the Corridor include:

Plymouth County

- Scenic overlook – Butcher Road area
- Historic site – several existing undeveloped sites to choose from
- Picnic area – Five Ridge Prairie area
- Interpretive/education site

Woodbury County

- Picnic area – Bronson area
- Scenic overlook – near Smithland area – possibly at Southwood Conservation Area
- Historic site – candidate site must be identified
- Restroom facility – Sergeant Bluff or Bronson areas
- Interpretive/education site – Bronson area; possibly in city park

Monona County

- Scenic overlook – near Loess Hills Wildlife Area
- Historic site – near Loess Hills Wildlife area; possibly Areola town site
- Historic site – near Preparation Canyon State Park; several known sites in and around park
- Interpretive/education site – near Preparation Canyon State Park
- Restroom facility – Castana

Harrison County

- Interpretive/education site – Sawmill Hollow area
- Scenic overlook – near Magnolia; possibly in one of several cemeteries on L23
- Historic site – undeveloped site near Calhoun or Sawmill Hollow
- Welcome/information center (unmanned) in Rest Area at I-29 exit south of Little Sioux

Pottawattamie County

- Restroom facility – McClelland
- Restroom facility – near Hwy 370 and Hwy 275 juncture
- Historic site – near Hitchcock Nature Area
- Historic site – undeveloped site near Iowa School for the Deaf
- Scenic overlook – near Hwy 370 and Hwy 275 juncture

Mills County

- Scenic overlook – near Mile Hill Lake
- Interpretive/education facility on Glenwood culture

Fremont County

- Hiking trail – Pinky’s Glen or Forney’s Lake
- Scenic overlook – near Pinky’s Glen/Tabor area
- Restroom facility – Thurman
- Historic site – undeveloped site at Waubonsie State Park



Concept Plans for Selected Amenities

To illustrate features at three common amenities, concept plans were developed for:

- Roadside Pull-Off for Developed Historic or Cultural Site located on a gravel county road and includes an interpretive panel, historic or cultural marker and walkways;
- Roadside Pull-Off for Undeveloped Historic or Cultural Site located on a county highway and includes an interpretive panel; and
- Scenic Overlook Site located on a state highway and includes a picnic area, interpretive panels, observation platform, walkways and trails.

The concept plans provide guidance for the design, location and construction of components commonly located at these three types of amenities. Actual locations in the Scenic Byway Corridor were used to develop the concept plans.

Maps, Plans, and Tables

Recommended Site Improvements - Map

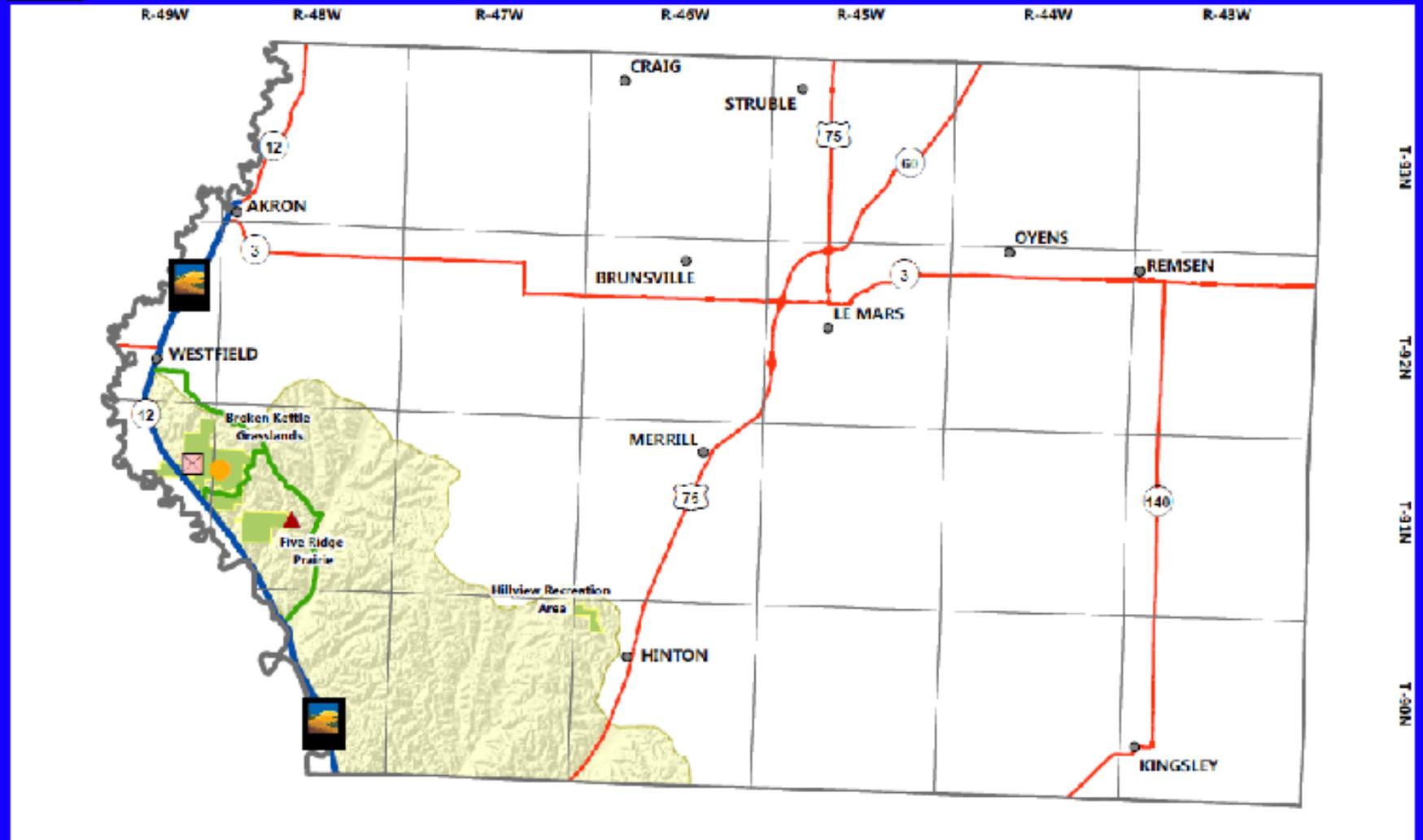
Proposed Amenity Additions - Map



Recommended Site Improvements Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Highways
-  Recreational Area
-  Interpretive Panel
-  Picnic Area
-  Scenic Overlook

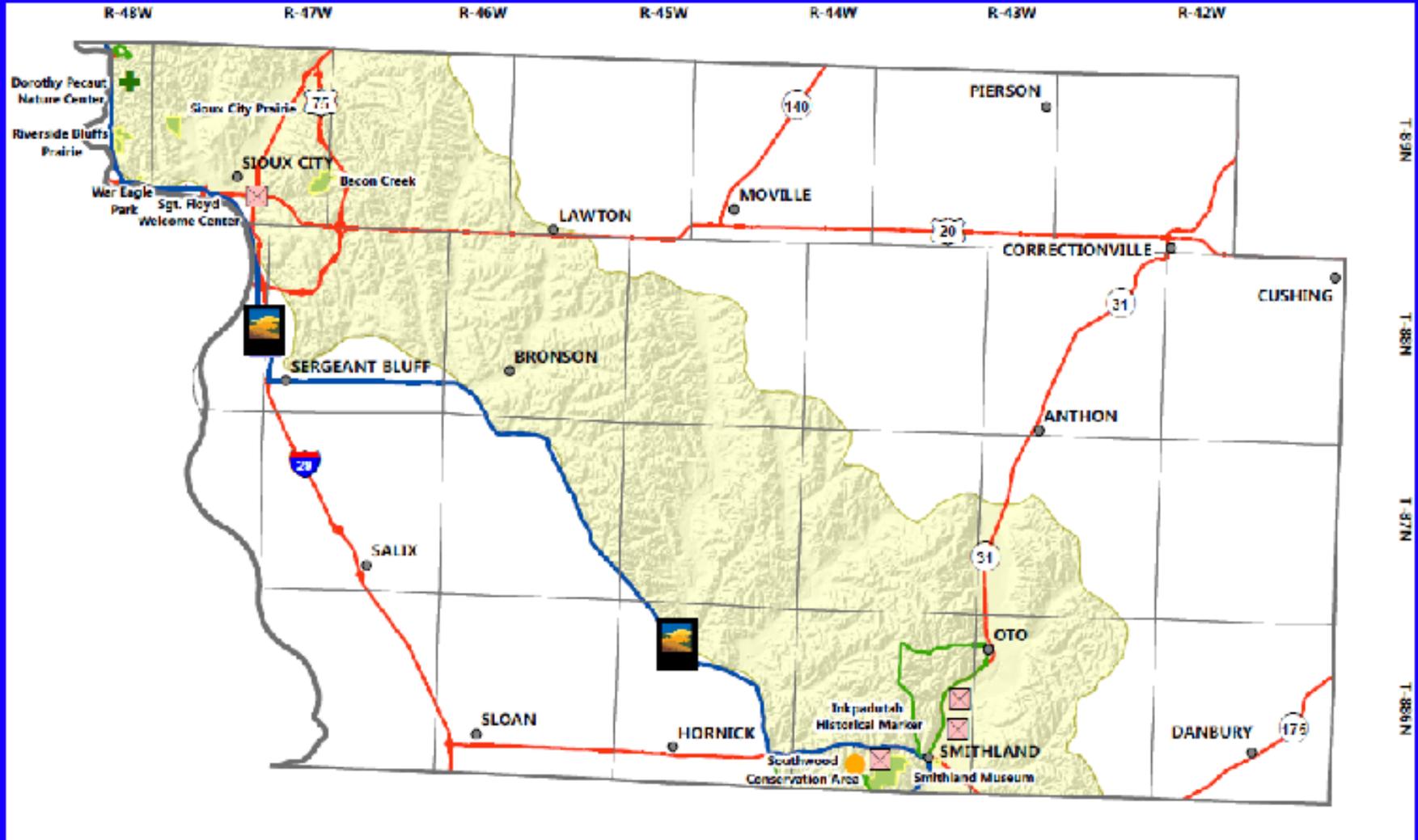




Recommended Site Improvements Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



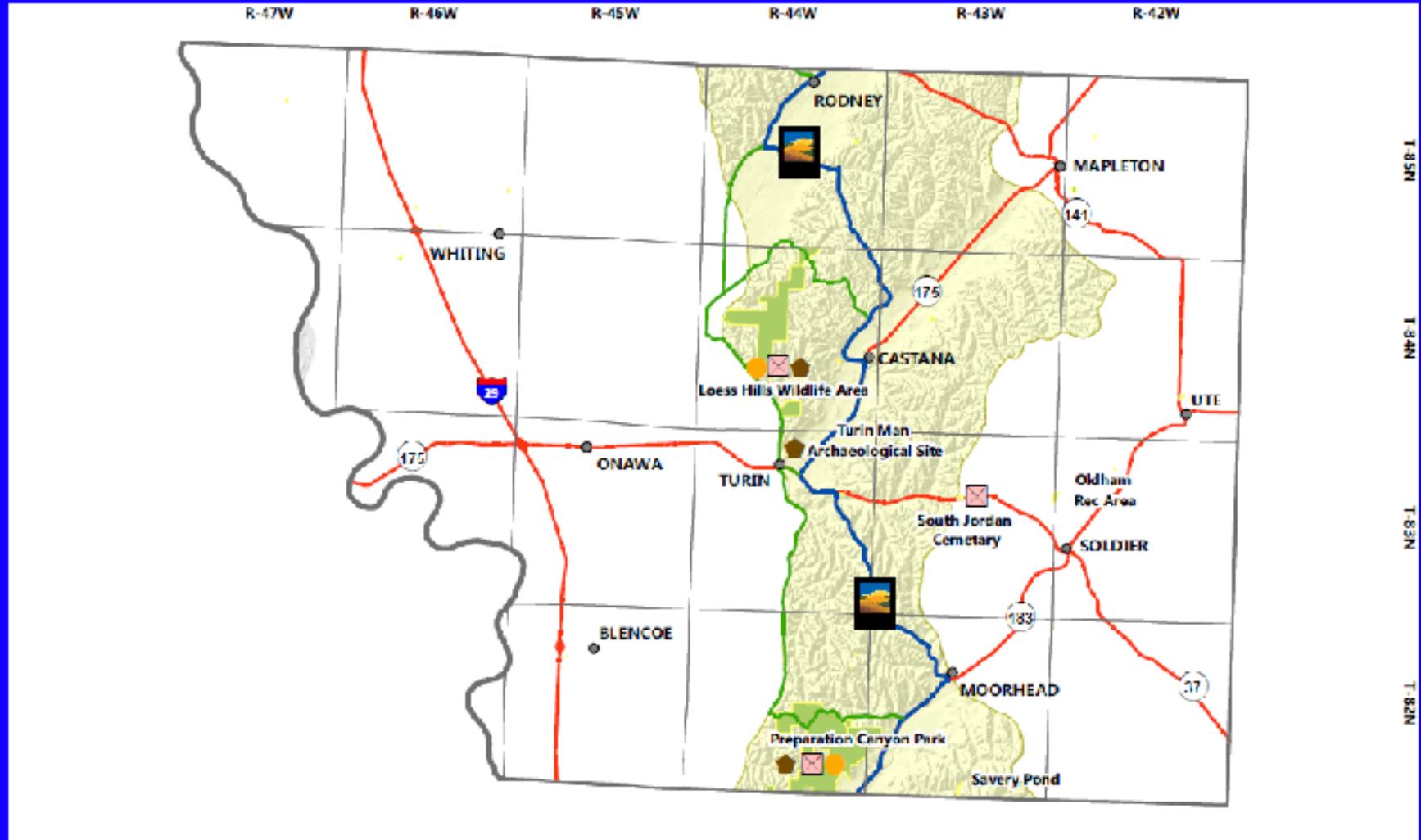
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Recreational Area
- Hiking
- Interpretive Panel
- Scenic Overlook





Recommended Site Improvements Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Golden Hills Resource Conservation & Development
 Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Recreation Area	Location Sign
Loess Hills Scenic Byway Loop	Historic Site	Picnic Area
Highways	Interpretive Panel	Scenic Overlook



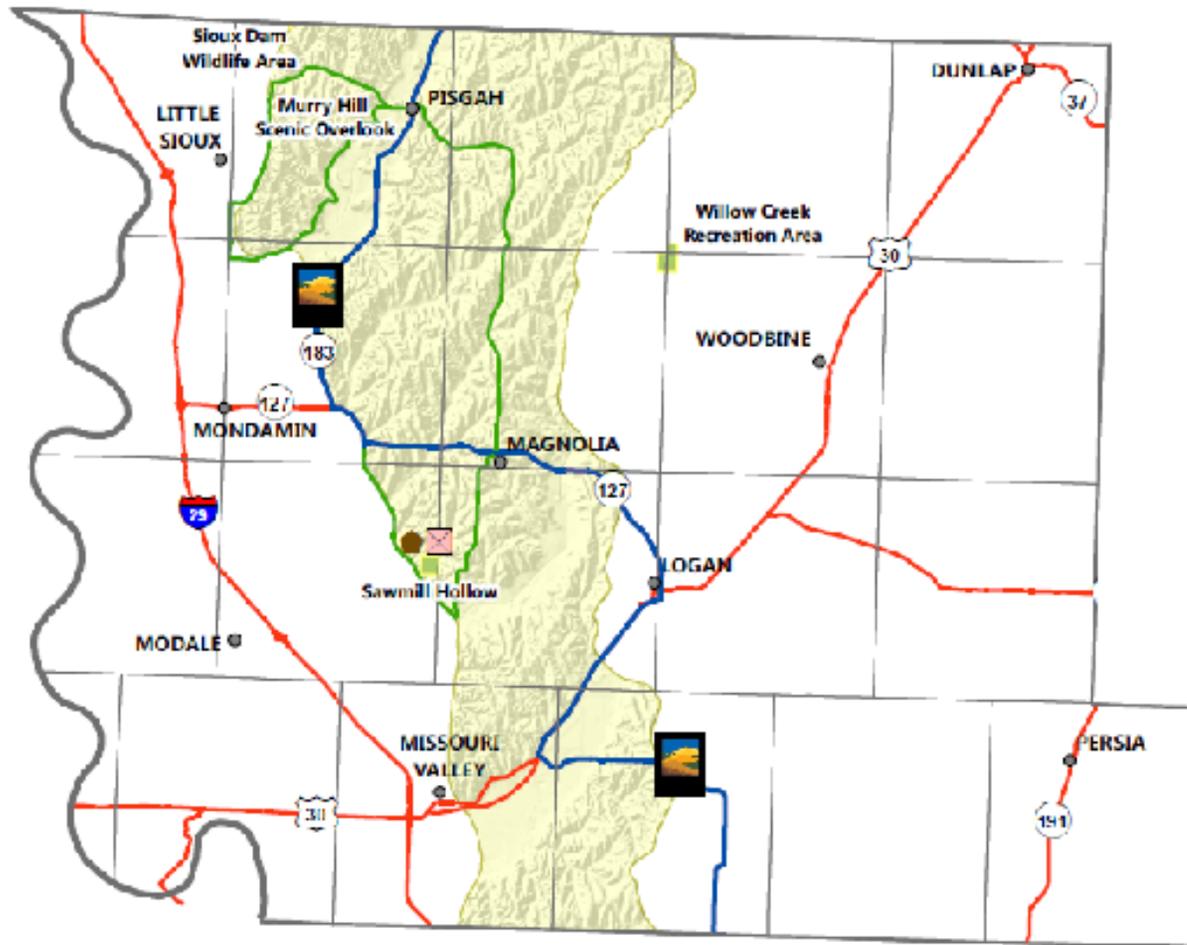


Recommended Site Improvements Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

R-46W R-45W R-44W R-43W R-42W R-41W



T-108-N
T-106-N
T-104-N
T-102-N



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Recreational Area
- Historic Site
- Interpretive Panel

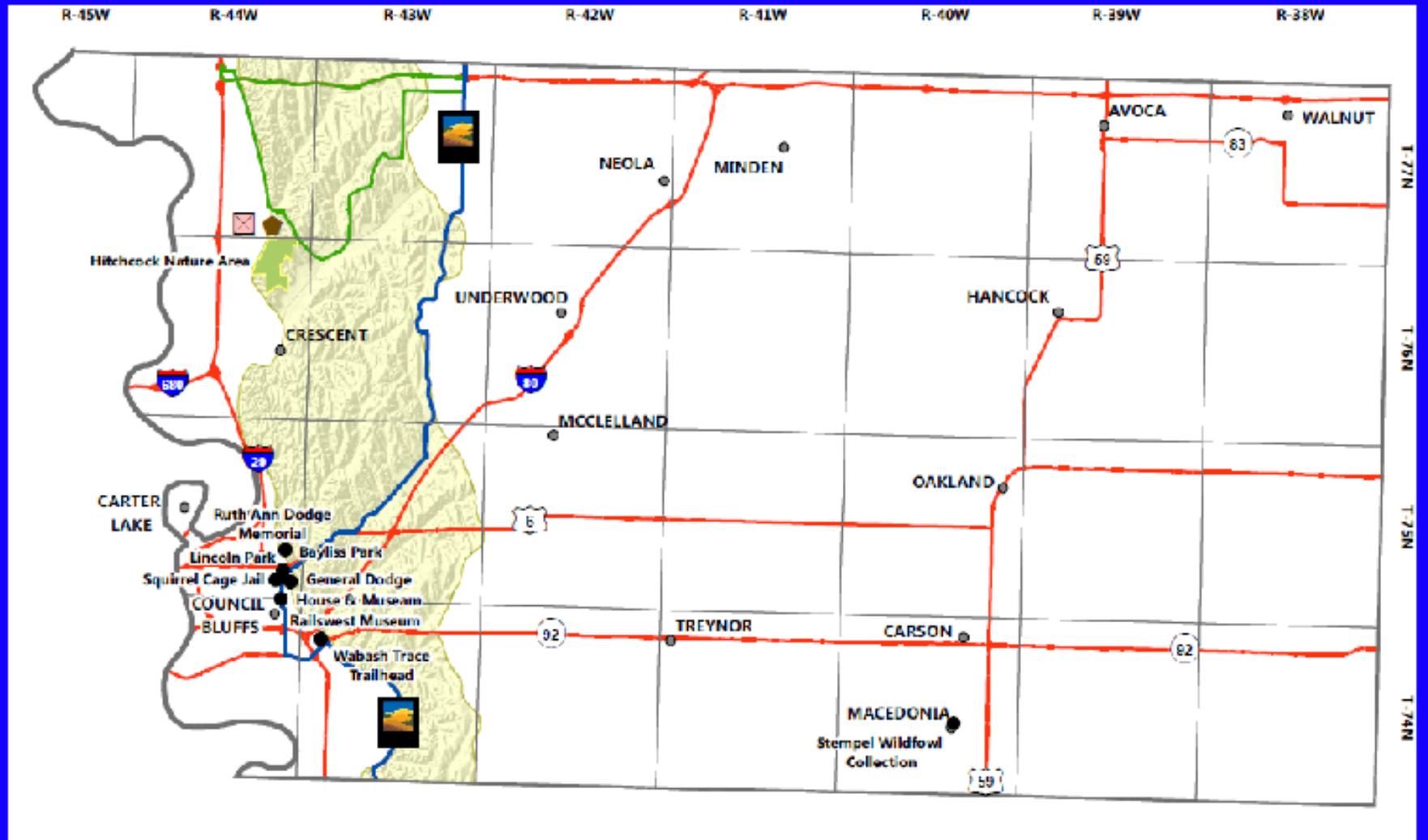




Recommended Site Improvements Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Recreational Area
- Historic Site
- Interpretive Panel

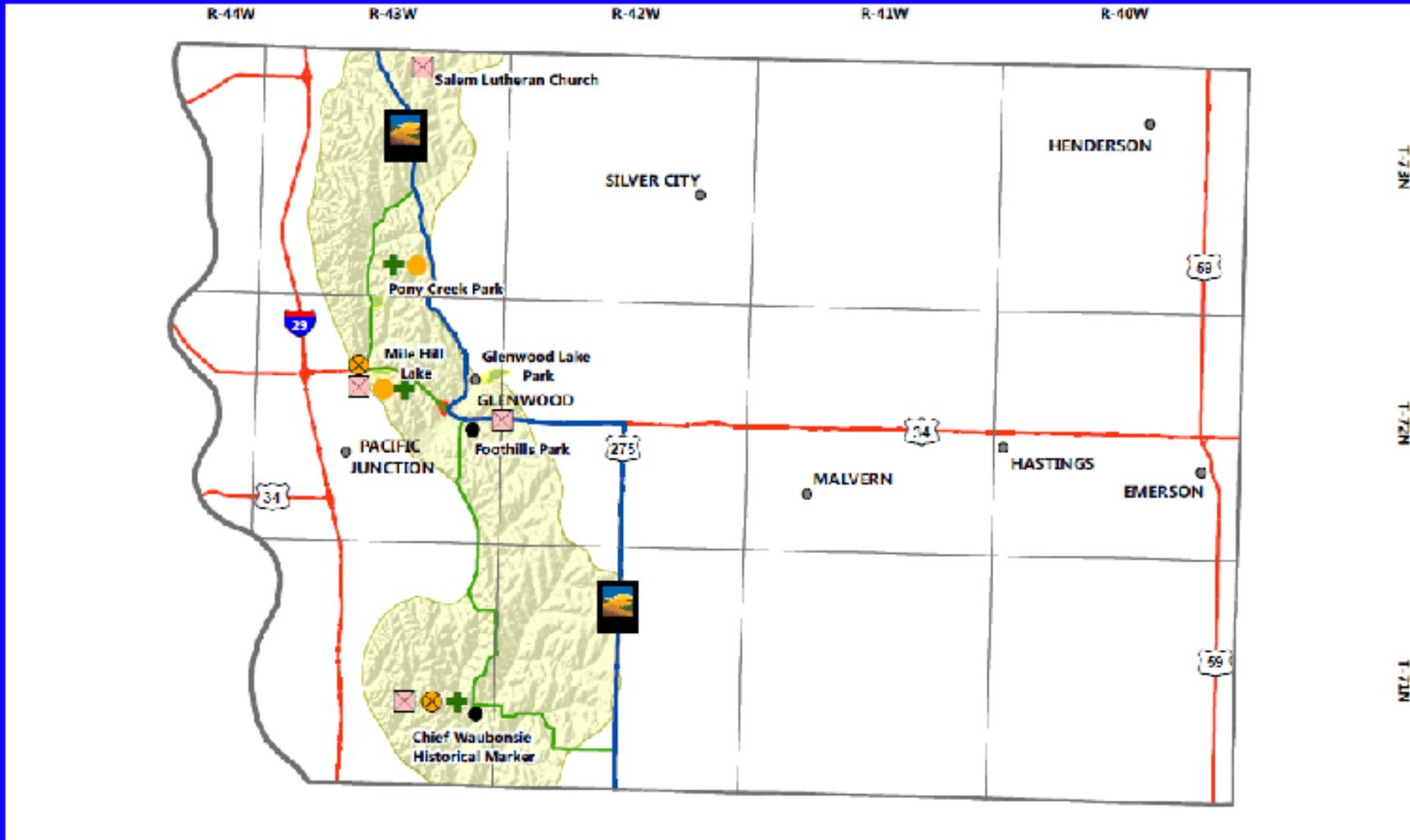




Recommended Site Improvements Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattomie County GIS Department



- | | | |
|--------------------------------|-------------------|--------------------|
| Loess Hills Scenic Byway Spine | Recreational Area | Interpretive Panel |
| Loess Hills Scenic Byway Loop | Facility Parking | Scenic Overlook |
| Highways | Hiking | |

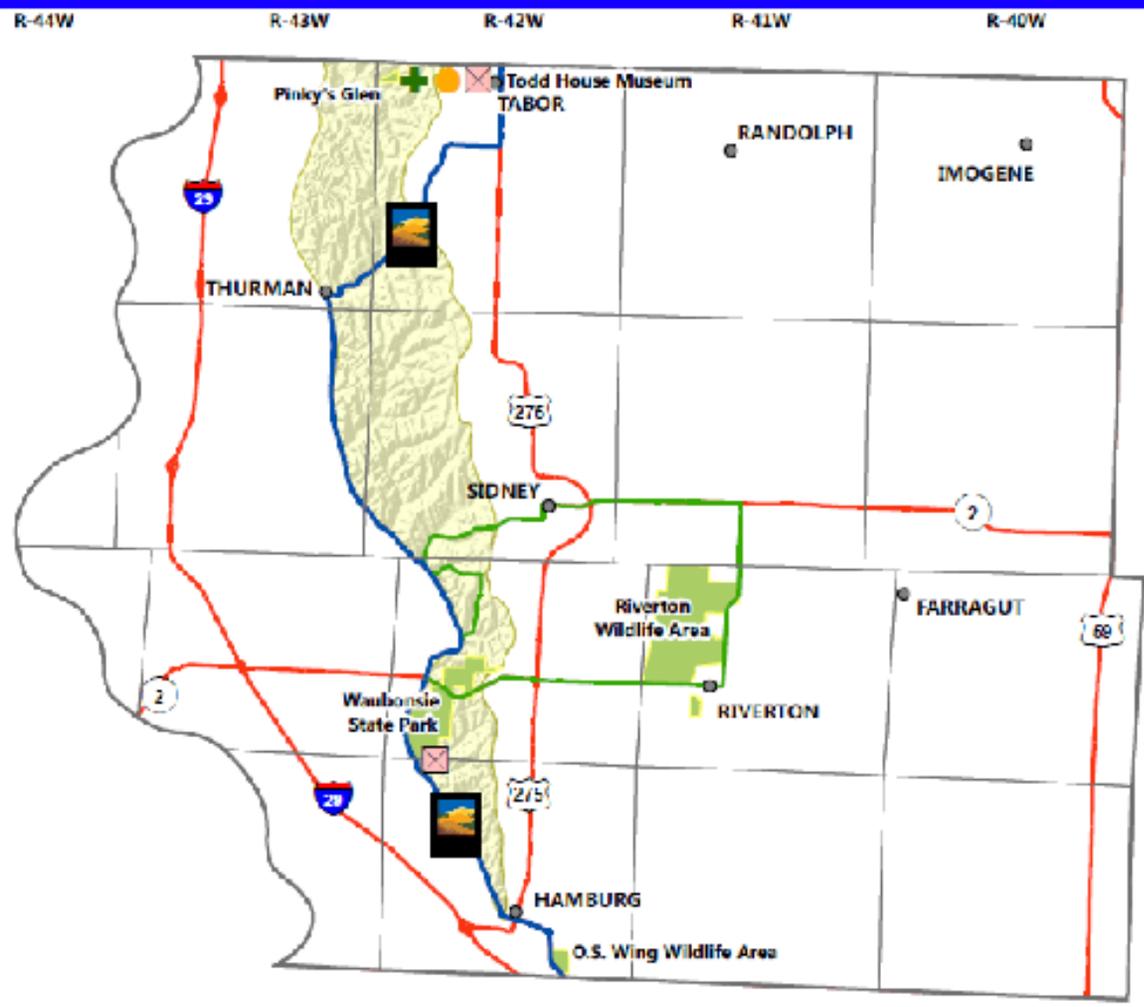




Recommended Site Improvements Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Highways
- Hiking
- Recreation Area
- Scenic Overlook
- Interpretive Panel

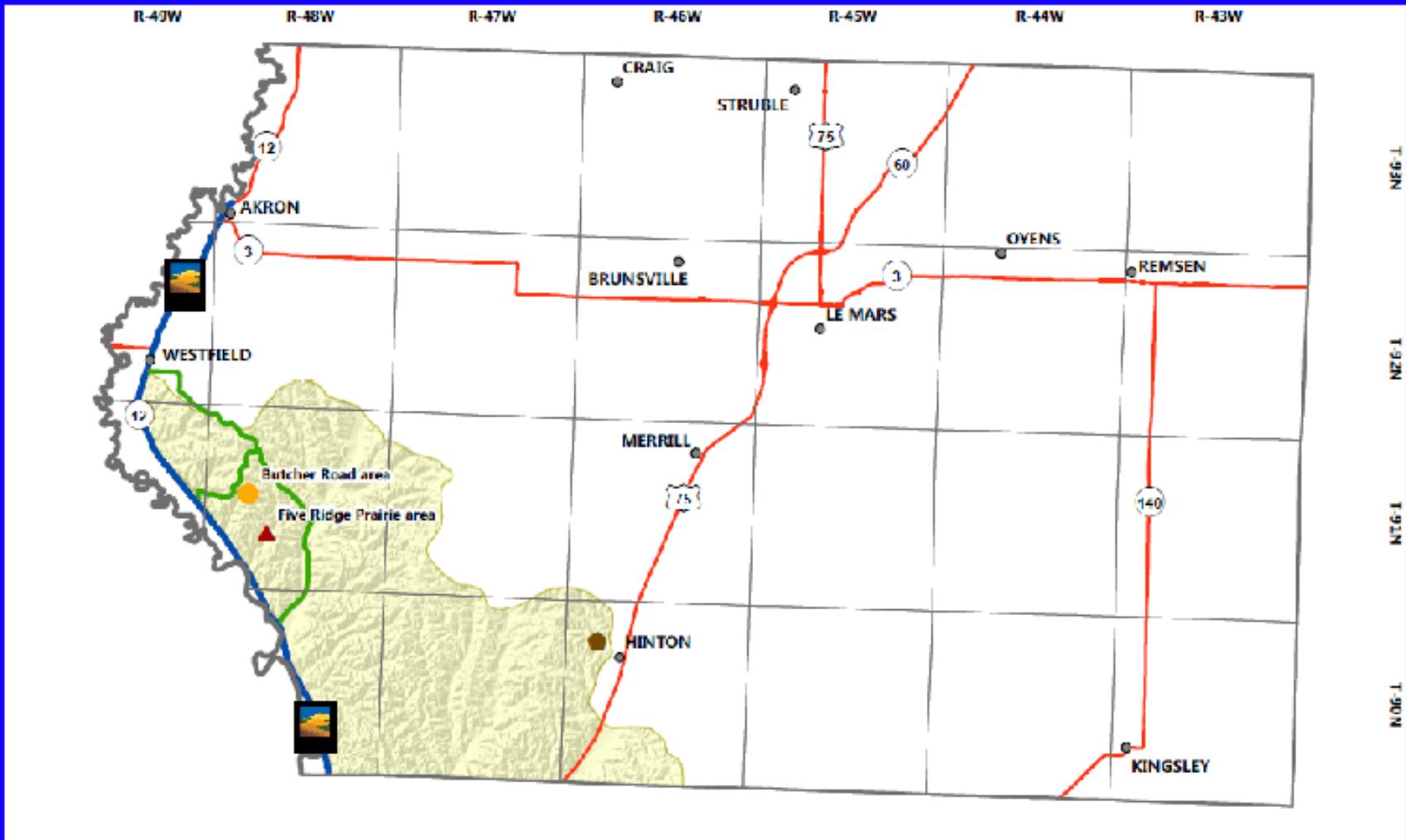




Proposed Amenity Additions Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattawie County GIS Department



- | | | |
|--------------------------------|-----------------------------|-------------------|
| Loess Hills Scenic Byway Spine | Historic Site | Restroom Facility |
| Loess Hills Scenic Byway Loop | Interpretive/Education Site | Scenic Overlook |
| Highways | Picnic Area | Welcome Centers |

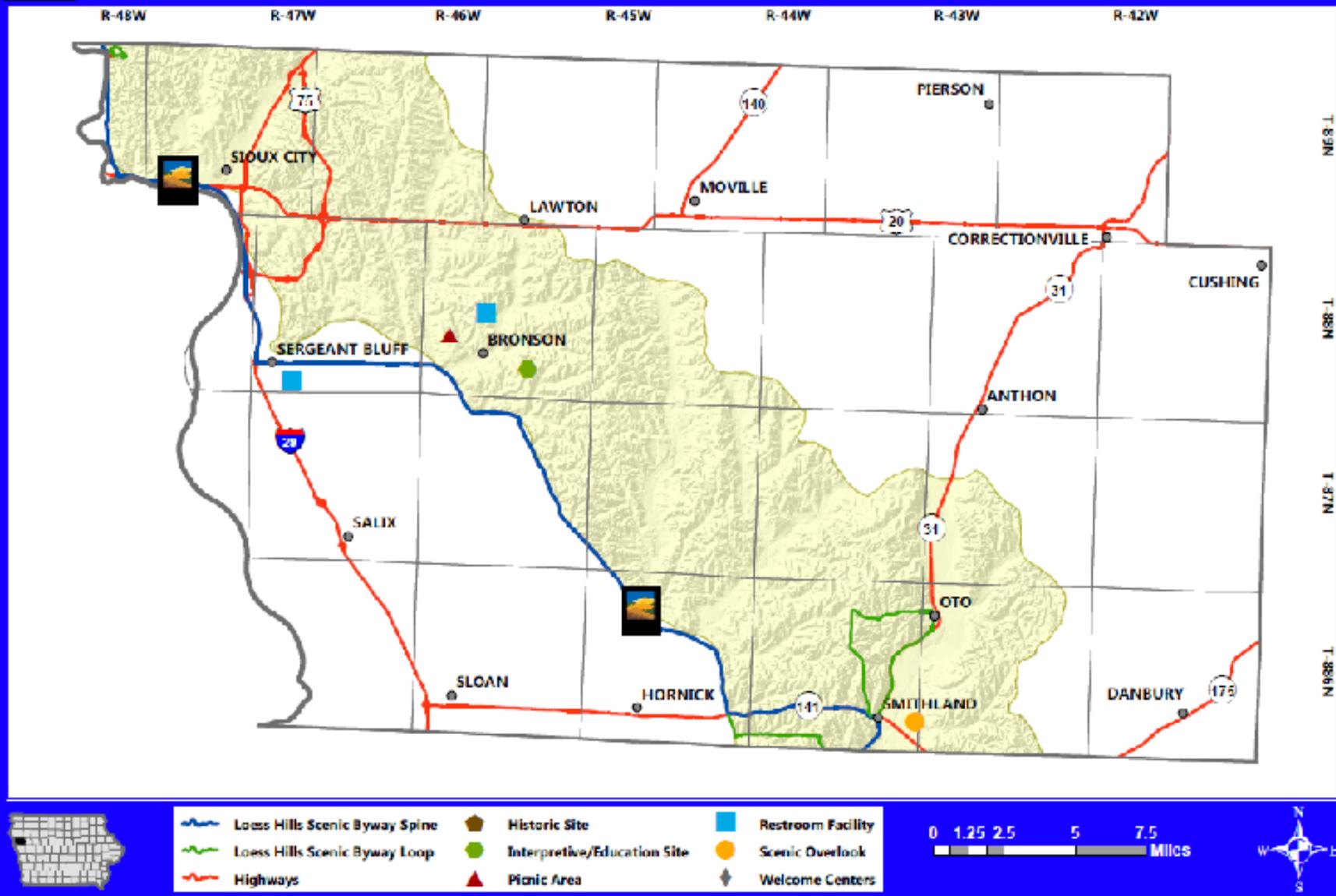




Proposed Amenity Additions Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

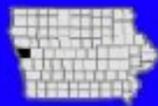
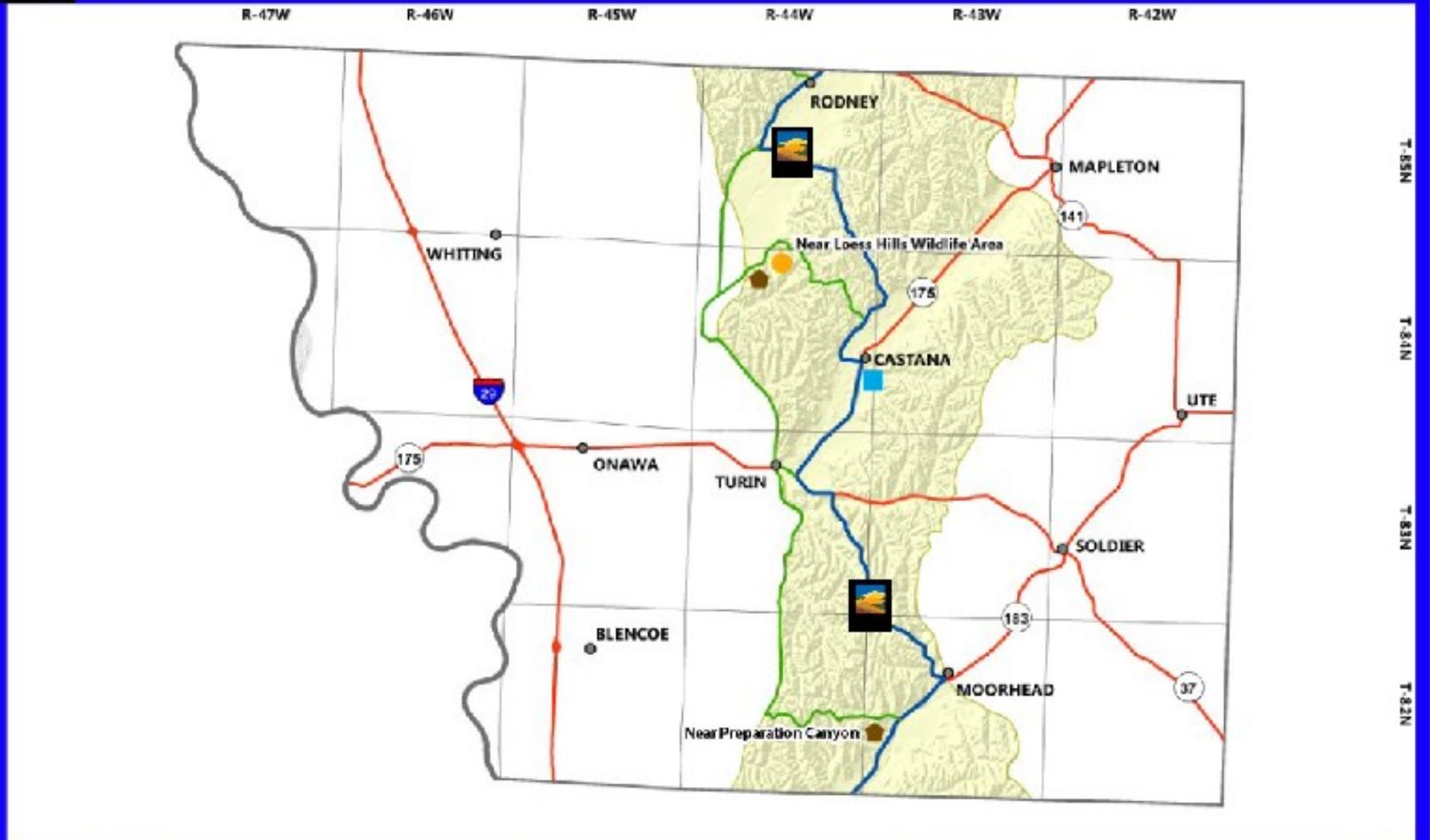




Proposed Amenity Additions Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Sources: Golden Hills Resource Conservation & Development
Prepared By: Polk/Wattawamba County GIS Department



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|--------------------------------|-----------------------------|-------------------|
| Loess Hills Scenic Byway Spine | Historic Site | Restroom Facility |
| Loess Hills Scenic Byway Loop | Interpretive/Education Site | Scenic Overlook |
| Highways | Picnic Area | Welcome Centers |

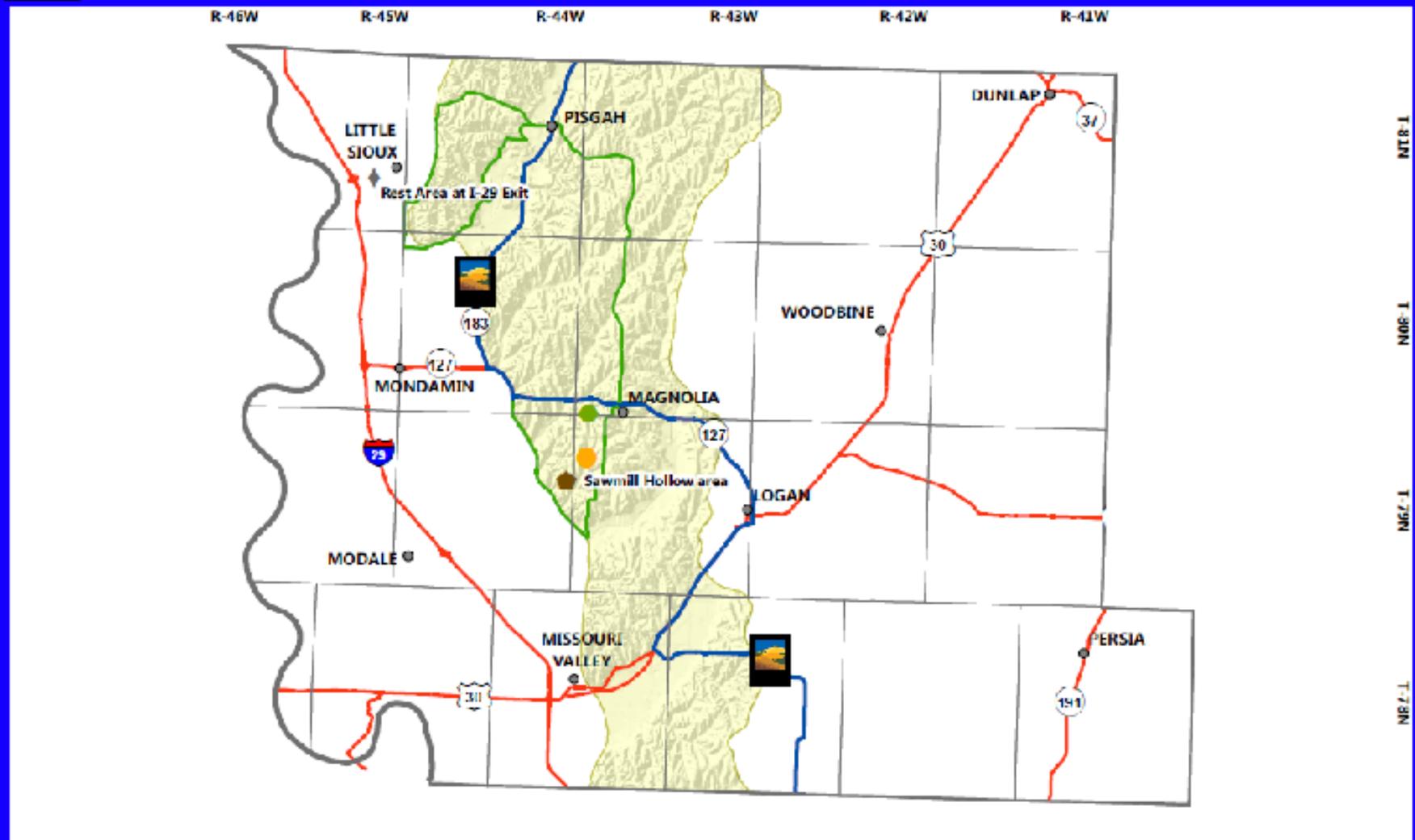




Proposed Amenity Additions Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Sources: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- | | | |
|--------------------------------|-----------------------------|-------------------|
| Loess Hills Scenic Byway Spine | Historic Site | Restroom Facility |
| Loess Hills Scenic Byway Loop | Interpretive/Education Site | Scenic Overlook |
| Highways | Picnic Area | Welcome Centers |

0 1.25 2.5 5 7.5 Miles

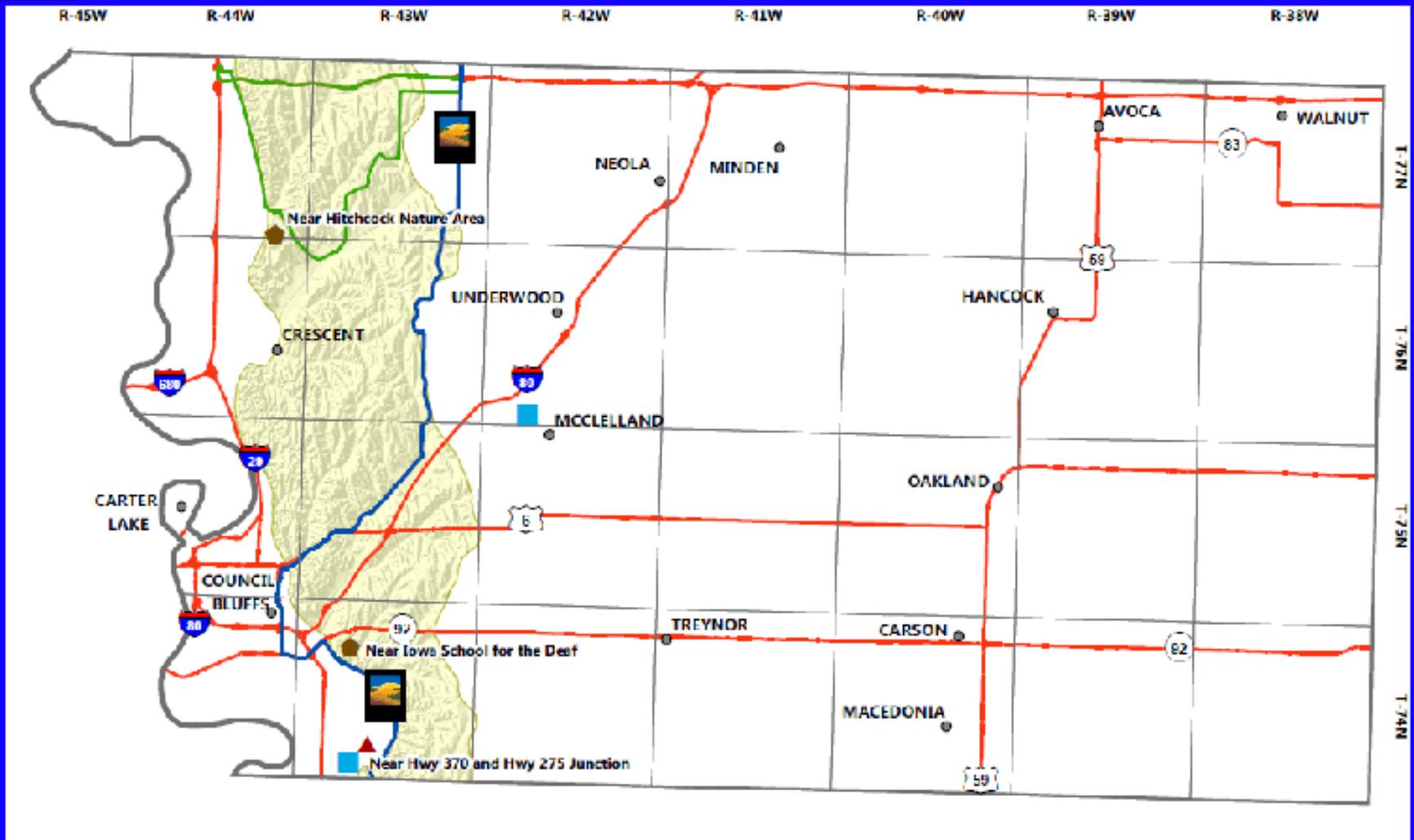




Proposed Amenity Additions Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- | | | |
|--------------------------------|-----------------------------|-------------------|
| Loess Hills Scenic Byway Spine | Historic Site | Restroom Facility |
| Loess Hills Scenic Byway Loop | Interpretive/Education Site | Scenic Overlook |
| Highways | Picnic Area | Welcome Centers |

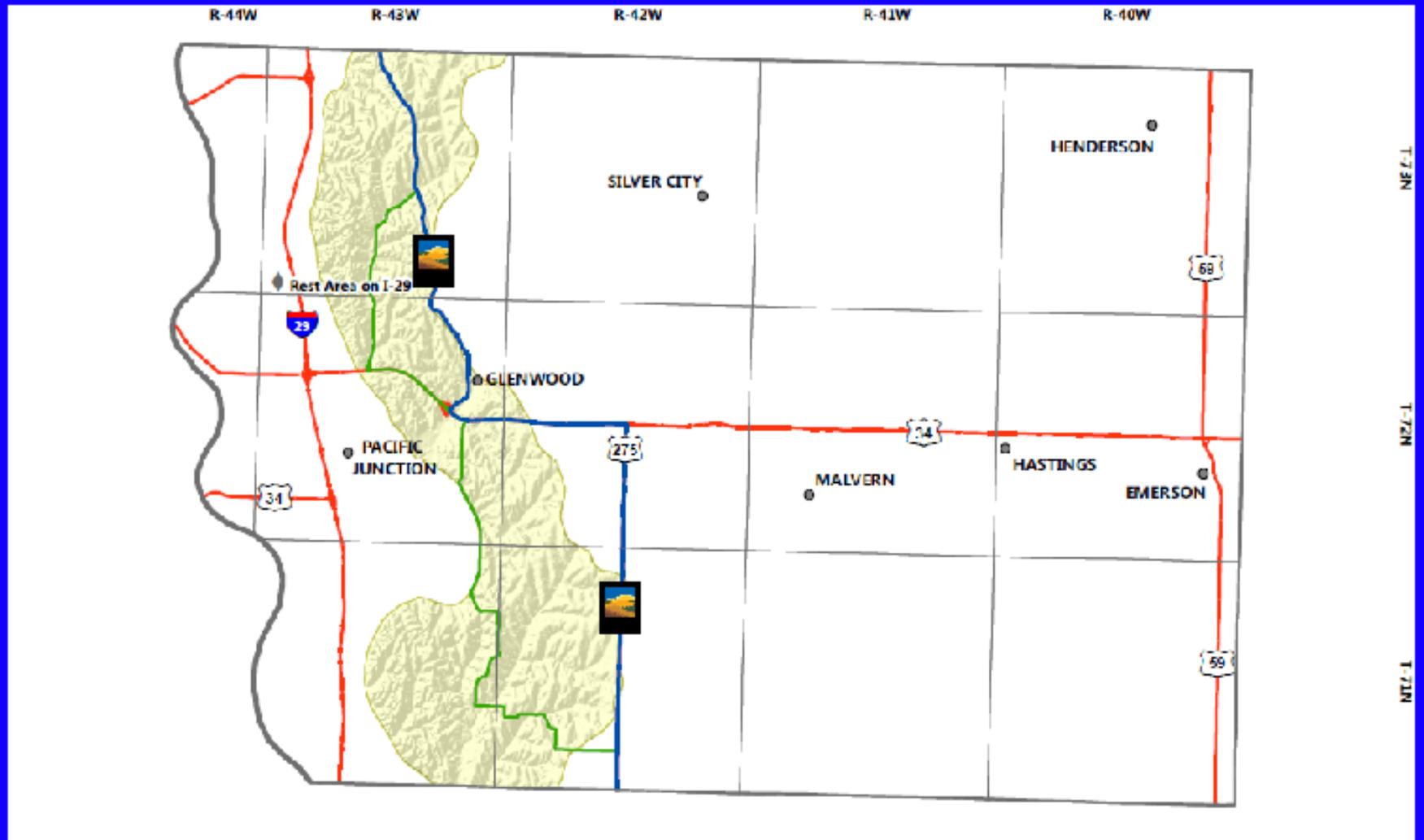




Proposed Amenity Additions Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- | | | |
|--------------------------------|-----------------------------|-------------------|
| Loess Hills Scenic Byway Spine | Historic Site | Restroom Facility |
| Loess Hills Scenic Byway Loop | Interpretive/Education Site | Scenic Overlook |
| Highways | Picnic Area | Welcome Centers |

0 1 2 4 6 Miles

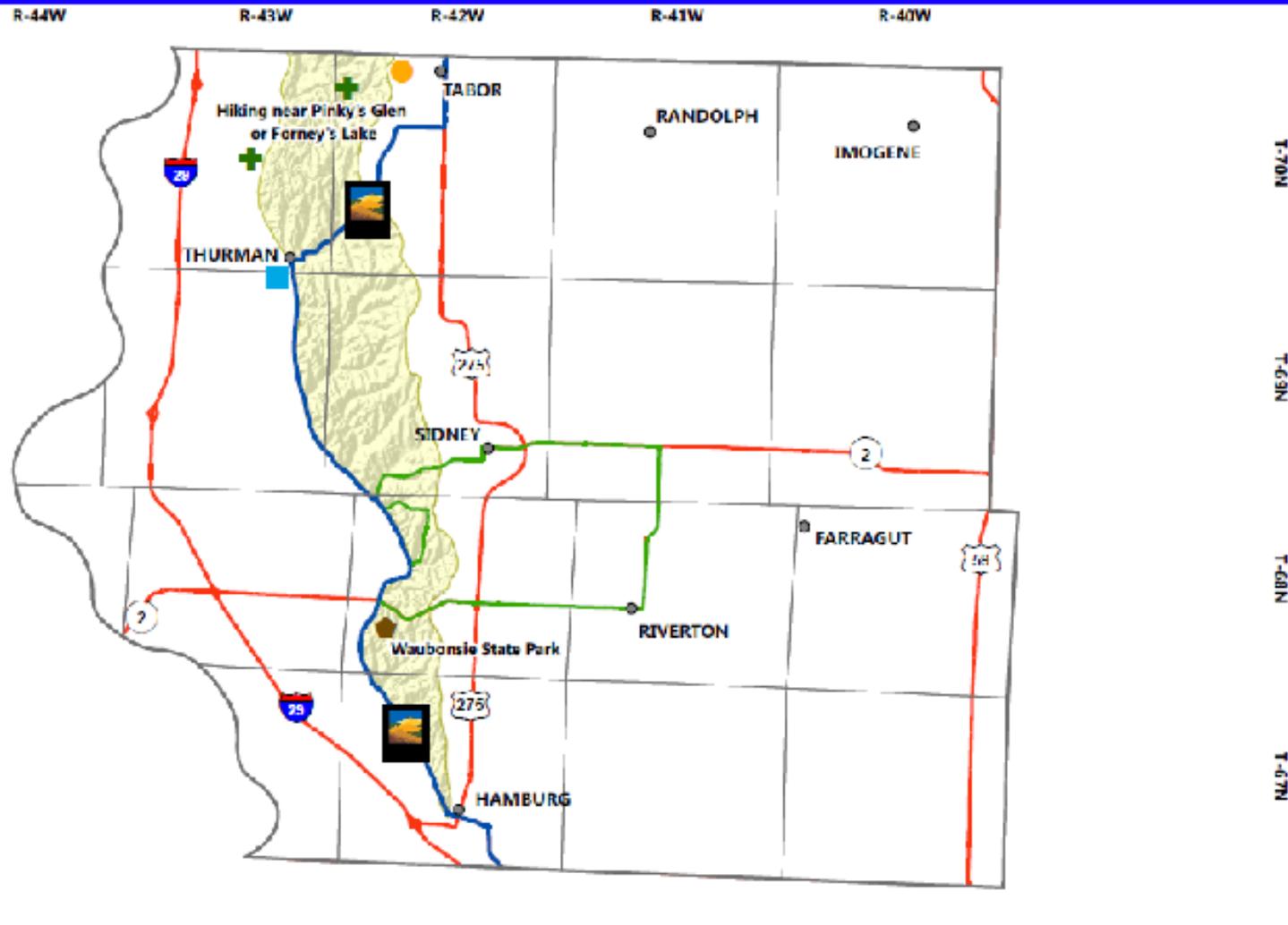




Proposed Amenity Additions Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- | | | |
|--------------------------------|-----------------------------|-------------------|
| Loess Hills Scenic Byway Spine | Historic Site | Restroom Facility |
| Loess Hills Scenic Byway Loop | Interpretive/Education Site | Scenic Overlook |
| Highways | Hiking | Welcome Centers |



Sign Plan

Signs and Scenic Byways

A well planned, implemented and maintained sign system is essential to providing a positive and safe experience for travelers in a scenic byway corridor. An effective sign system for byway routes and associated attractions contributes enormously to fulfilling the resource protection and community and economic development potential of a scenic byway. Poor design, improper placement and inadequate maintenance of signs can greatly discourage travel in the corridor. An ineffective sign system can threaten the very existence of a scenic byway.



A sign is defined as an inscribed board, plate or space that provides information, warning or guidance. Signs provide a single message. Entrance signs, traffic signs, directional signs and regulation signs are examples (Trapp et al. 1994, 8). Each part of a sign is important. Signs not only provide information, they create an impression and set a tone. The Manual of Uniform Traffic Control Devices for Streets and Highways (MUTCD) published by the Federal Highway Administration (2009) is an excellent resource for guidance on the various types and specifications of signs to meet identified needs. According to the MUTCD, the three parts of a sign are:

- Sign face - includes all the elements that compose the surface;
- Sign panel - the physical backboard on which the sign face is inscribed;
- Supports - anchors the sign to the site physically and visually.

Material requirements and location for signs are important considerations. Thought should be given to:

- Readability by motorists traveling at various speeds and in a variety of weather conditions;
 - Use of local materials and service;
 - Fabrication, installation, maintenance, and replacement costs;
 - Sustainability, e.g., degree of permanence of message;
 - Durability, e.g., degree of resistance to vandalism;
 - Ability to accept night lighting;
 - Siting and adaptability in diverse settings; and
 - Uniformity of appearance: color, font, size, materials, etc.
- A sign system for a scenic byway corridor performs a variety of functions. At its most basic level, a sign system should provide travelers in the corridor with:
- Directions for traveling the scenic byway;
 - Directions to attractions in the corridor; and
 - Information about the intrinsic qualities or resources of the scenic byway corridor.

Signs in a scenic byway corridor should also:

- Express warmth, hospitality and welcoming impression conveyed to viewers;
- Provide easy readability in various light and weather conditions;
- Provide reliability - attractions marked with signs should meet minimum standards of quality and service;
- Integrate well with lure pieces, trip planning literature and in-route travel guides; and
- Encourage travelers to visit attractions and enjoy visitor services such as food and lodging.

A plan providing guidelines for the appropriate use of signs is also a requirement for scenic byway designation at the national level. According to the National Scenic Byways Program, a sign plan that demonstrates how the number and placement of signs associated with a scenic byway will be supportive of the visitor experience should be included as part of the byway's corridor management plan (U.S. Federal Government Register 26759, 1995).

A Sign Plan for the Loess Hills National Scenic Byway Corridor

Travelers in the Loess Hills National Scenic Byway Corridor have repeatedly confirmed the importance of an effective sign system in making their experience more enjoyable. This traveler input, the results of an extensive inventory and evaluation of signs and sign needs, and principles of sound transportation planning have been used to develop a sign plan for the Scenic Byway corridor. The plan is based on the primary sign types described below:

Sign Types for the Loess Hills National Scenic Byway Corridor

Loess Hills National Scenic Byway Route Signs - these signs are placed along those state, county and city roadways that have been designated as part of the Loess Hills National Scenic Byway. The signs help travelers identify and follow those routes that are part of the recognized Scenic Byway system;

- **Attraction or Point of Interest Signs** - these signs are placed along interstate, state, county and city roadways in the Loess Hills National Scenic Byway corridor. The signs help travelers identify and locate major points of interest in the Corridor. These signs are also placed at the entrances to the attractions;
- **Tourist Orientation Directional Signs (TODS)**: - these signs provide identification and directional information for businesses and private attractions the major portion of whose income or visitors come from motorists not residing in the immediate area. They are intended for use on non-freeway primary highways;

- **Interpretive Signs** - these signs are placed at attractions in the Loess Hills National Scenic Byway Corridor. The signs are an integral part of the interpretive program for the Corridor. These signs educate and entertain travelers with information about the intrinsic qualities of the Scenic Byway corridor. They also provide travelers with information about the Scenic Byway itself and to help them locate other attractions and information sites in the Corridor;
- **Community and Attraction Recognition Signs (Hospitality Signs)** - these signs are placed along state, county and city roadways that enter communities and at entrances to attractions in the Loess Hills National Scenic Byway Corridor. The signs are an integral part of the hospitality program for the Scenic Byway Corridor. These signs will indicate the availability of traveler information in communities and at attractions; and
- **Bicycle Route Signs** - the development of bicycle routes in the Loess Hills National Scenic Byway Corridor may require the installation of signs. These signs would be placed along state, county and city roadways that are part of designated bicycle routes in the Scenic Byway Corridor. The signs will help bicyclists locate and follow established bicycle routes, advise motorists of the presence of bicyclists and warn bicyclists of any hazardous riding conditions



Implementing the Sign Plan for the Loess Hills National Scenic Byway Corridor

The Sign Plan for the Loess Hills National Scenic Byway Corridor gives direction to stakeholder organizations regarding the placement of appropriate signs, types of signs needed and specifications for sign design and fabrication. The Sign Plan attempts to balance the need for uniformity with the attraction of local uniqueness in the design and fabrication of signs for the Scenic Byway Corridor. The implementation matrix at the end of the “Corridor Development Actions” section identifies actions and stakeholder responsibilities for installing and maintaining signs in the Loess Hills National Scenic Byway Corridor.

It is important to note that the sign system for the Loess Hills National Scenic Byway corridor should complement printed materials produced for travelers such as brochures and discovery guides. Care should be taken to ensure that the information communicated to travelers through signs and printed materials is both accurate and consistent. Travelers should be able to rely on brochures or discovery guides together with signs to help them easily navigate and enjoy the Scenic Byway Corridor.

Loess Hills National Scenic Byway Logo

History

In the late 1980s, as work began on the Loess Hills National Scenic Byway in Harrison and Monona Counties, local residents developed and adopted a logo for the Loess Hills National Scenic Byway. The logo featured a stylized design symbolizing the Loess Hills, native vegetation and Missouri River. Residents worked on the logo design with a local artist, Mr. Walter Ordway of Soldier, Iowa. Mr. Ordway donated his work for the benefit of public tourism development efforts in Iowa and waived license and/or royalty fees for the use of the logo in promoting the Loess Hills National Scenic Byway corridor.

In 2010, the Iowa Department of Transportation developed a new Iowa Byways Brand for byways across the state. This included a new logo for the Loess Hills National Scenic Byway. Byway signs each include a system-wide identity graphic showing their affiliation with Iowa Byways. The Loess Hills National Scenic Byway logo features four layers of hills ranging from dark yellow in the foreground to light yellow in the background. The top features a dark blue sky. Green trees are located between the hills, and brown grass is across the bottom. The logo is surrounded by a black frame with white lettering. The Iowa DOT released Iowa Byways Brand Guidelines in March 2010, which details specifications for using the Loess Hills National Scenic Byway logo in print, digital, and promotional applications as well as road signs.



Applications

The logo plays a very important role in developing and maintaining a sense of unity for the region. The logo is an identifying symbol providing consistency throughout a byway traveler's experience. It reassures the traveler that they are on the Byway or in a Byway community or attraction.

The Byway's logo is currently displayed on route signs and the informational brochure. Scenic Byway logos should also be displayed on signs identifying communities and attractions in the Scenic Byway Corridor interpretive panels and displays; and published materials including future brochures, advertisements, and discovery guides. The logo also provides opportunities for travelers to purchase merchandise bearing an identifying logo that tells others that "they were here".

A Licensing Program for the Scenic Byway Logo

The purpose of a licensing program is to protect the commercial use of a developed mark, icon, symbol or logo and the good name and reputation of the licensing party. This protection ensures that the mark, icon, symbol or logo is reproduced accurately from a design standpoint and that specific designs and pantone colors are used in its reproduction. A licensing program also ensures that a wide variety of products perhaps from various manufacturers bearing the mark, icon, symbol or logo will be of the highest quality. It is not unusual to be approached by manufacturers whose products are below the standards of the licensing party.

A licensing program provides the process whereby proposed uses of the mark in conjunction with commercial products can be accepted or rejected by the licensing party. In addition, a licensing program provides a legal process whereby an unlicensed manufacturer who is using the protected mark(s) on products can be required to pay royalties. The manufacturer of products or licensees benefit from the implied affiliation and in return, the licensee pays a royalty fee to the licensing party for the right to use the mark(s). This implied affiliation helps with marketability and protection from unlicensed competition. Retailers benefit from the association of the licensing party when they become an outlet for the officially licensed products. Lastly, consumers benefit from the quality standards built into the licensing process and the knowledge that the licensing party will realize the royalty income to support designated activities. The licensing party may offer to enhance the success of the licensing program by working closely with each licensee to assist in the marketing and distribution of products.

Obtaining a copyright or trademark for a mark, icon, symbol or logo is a legal process. An attorney experienced in this area can discuss the benefits of either a copyright or trademark. Once a legal request is made, a search is done through the Secretary of State to ensure that approval has not been previously granted. If it has not, approval is granted and the licensee is entitled to all of the rights, benefits and privileges that accompany either a copyright or a trademark.

Non-commercial use of a mark, icon, symbol or logo can always be granted by the licensing party. The request should come in writing as to how specifically the mark will be used. If the usage meets with the goals of the licensing party and the artwork has been reproduced accurately, written approval is then given regarding the non-commercial usage. Non-commercial usage does provide benefit to commercial usage by increasing the visibility and desirability of the developed mark, icon, symbol or logo (Ubiñas 1).

Loess Hills National Scenic Byway Route Signs

According to the MUTCD, scenic byway route signs should be uniform in size, shape, color and message. The MUTCD also states that in many instances signs must be applied and located differently. For example, it is recognized that urban traffic conditions differ from rural and the Loess Hills National Scenic Byway travels through both rural and urban areas. In urban areas where traffic is heavy and motorists have to make quick decisions there is a need for more signs than on a rural road with light traffic and few intersections. Signs should be placed so users of the Byway can make timely and safe decisions.

Sign Plan Action #1

City, county and state officials responsible for the installation and maintenance of route signs along the Loess Hills National Scenic Byway should implement the sign plan in accordance with the specifications, database and maps in this chapter. A regular maintenance program should be carried by each of these entities. All signs should be kept in proper position, clean and legible at all times. Damaged signs should be replaced without delay. To assure adequate maintenance, a suitable schedule for inspection, cleaning and replacement to signs should be established.

Employees of public agencies whose duties require that they travel on the highways should be encouraged to report any damaged or obscured signs at the first opportunity. Special attention and necessary action should be taken to see that weeds, trees, shrubbery and construction materials do not obscure the face of any sign.

Installation of Signs

According to the MUTCD, signs should be (2A, 1988):

Located on the right hand side of the roadway, where the driver is looking for them;

- Erected on separate posts or mountings except where one sign supplements another or where route or directional signs must be grouped; and
- Located so that they do not obscure each other or are hidden from view by other roadside objects.
- Signs erected at the side of the road in rural districts shall be mounted at a height of at least five feet, measured from the bottom of the sign to the near edge of the pavement. In business, commercial and residential districts where parking and/or pedestrian movement is likely to occur or where there are other obstructions to view, the clearance to the bottom of the sign shall be at least seven feet. A route marking assembly consisting of a route marker with an auxiliary plate is treated as a single sign.
- Sign posts and their foundations and sign mounting shall be so constructed as to hold signs in a proper and permanent position, to resist swaying in the wind or displacement by vandalism. In some cases, especially in urban districts, signs can be correctly placed on existing supports used for other purposes, such as traffic signals, street lights, and public utility poles where permitted, thereby saving expense and minimizing sidewalk obstructions (MUTCD 2A, 1988).

Attraction or Point of Interest Signs

The Recreational and Cultural Interest Area Signs section in the MUTCD describes the scope, application, design requirements, placement and other general information regarding signs for points of interest. The purpose of these signs is to guide motorists to a general area and then to specific attractions within the area. The signs may be used on or off the road network, as appropriate.

The MUTCD defines recreational and cultural interest areas as attractions, or traffic generators, that are open to the general public for the purpose of play, amusement and relaxation. Recreational attractions include such facilities as parks, race tracks and ski areas, while examples of cultural attractions include museums and art galleries.

According to the MUTCD, there are two different types of signs for recreational and cultural interest areas: 1) Symbol Signs and 2) General Guide Signs. Symbol signs shall be square or rectangular in shape and shall have a white symbol or message and border on a brown background. Guide signs may be posted for recreational and cultural interest areas that are a significant destination on conventional roads, expressways and freeways. White on brown directional guide signs may be placed at least to the first point at which an access road intersects the highway (2H, 1998).

Other types of signs in this category include (MUTCD 2H, 1998):

- General Information Recreational and Cultural Interest Area Symbol Signs - used to inform the public of rules and regulations and to direct persons to facilities and structures located within recreational and cultural interest areas.
- Motorist Services Recreational and Cultural Interest Area Symbol Signs - used to inform motorists of the availability of motor vehicle related services such as gas, food and lodging within recreational and cultural interest areas.
- Accommodation Services Recreational and Cultural Interest Area Symbol Signs - used to inform the general public of the availability of non-motor vehicle services such as showers, sleeping shelters and laundries which may be needed in general travel through recreational and cultural interest areas.
- Water Recreational and Cultural Interest Area Symbol Signs - used to inform motorists of the availability of water services such as boat ramps, sailboating, swimming and canoeing which are located within recreational and cultural interest areas.
- Winter Recreational and Cultural Interest Area Symbol Signs - used to inform motorists of the availability of winter services such as skiing, ice skating and snowmobiling which are located within recreational and cultural interest areas.

Sign Plan Action #2

An inventory of off-site and on-site points of interest signs was conducted as part of the evaluation of existing amenities in the Loess Hills National Scenic Byway corridor. This inventory produced a series of recommendations that address the condition and placement of signs at attractions. These recommendations are presented below. Scenic Byway stakeholder organizations responsible for the placement and maintenance of signs for attractions should implement these recommendations. In addition, as new attractions are identified and developed the responsible stakeholder organization should ensure that the appropriate signs are installed.

Interstate Signs

The Loess Hills National Scenic Byway itself does not meet the current Iowa DOT criteria for placement of signs viewed from interstates for attractions. However, specific attractions in the Scenic Byway Corridor at which travelers may obtain information regarding the Byway may meet Iowa DOT criteria for interstate signs. Iowa DOT criteria for supplemental destination signs on the interstate system includes (Policy No. 620.10 C. IDOT):

- Recreational areas which are open to the public, generate significant traffic volumes, are located within 30 miles of the interchange and have at least 15,000 visitors annually;
- Historic sites or facilities or other tourist attractions which have a regional or national significance, are open to the public, generate significant traffic volumes, are located within 30 miles of the interchange and have at least 15,000 visitors annually;
- The area or facility must be on or within one mile of the intersected route;
- No more than two supplemental destinations accessible from the interchange shall be shown on the interstate sign. If more than two areas or facilities qualify, the closest, regardless of size or significance, shall be shown; and
- Historic sites and tourist attractions shall be in operation eight hours per day between 7:00 a.m. and 9:00 p.m., six days per week, year round. For those attractions which are seasonal by nature, operations may be suspended during certain parts of the year. In that event, consideration should be given to removing or covering the message when the attraction is closed.

Sign Plan Action #3

Several attractions currently have signs placed on Interstates 29, 80 and 680 within the Scenic Byway Corridor. There are a number of additional attractions in the Scenic Byway Corridor that may meet Iowa DOT criteria for the placement of interstate signs. A number of these attractions are listed below. Scenic Byway stakeholder organizations responsible for the management, and specifically the signing, of these attractions should pursue the placement of interstate signs with Iowa DOT. As additional attractions are identified and developed that appear to satisfy the criteria for interstate signs, the responsible stakeholder organization should work with Iowa DOT to evaluate and request their placement.

Tourist Oriented Directional Signs

Many businesses and privately owned attractions in the Loess Hills National Scenic Byway Corridor provide products and services for travelers. Many of these may not be directly on the Scenic Byway and require signage to inform travelers of their location. Tourist Oriented Directional Signs (TODS) provide identification and directional information for businesses and private attractions, the major portion of whose income or visitors are derived from motorists not residing in the immediate area. They are intended for use only on non-freeway primary highways and provide information about the

availability of products, services, activities or sites of interest to the traveling public.

In Iowa, the design, fabrication and installation of TODS is subject to a series of general and special requirements established by Iowa DOT. For example, TODS can only be placed in communities with less than 1,500 population or rural areas. Similarly, businesses and attractions requesting TODS that provide traveler services must be open eight hours a day, six days a week, 12 months a year. TODS feature the name of the business or attraction, mileage to the facility and the direction. Requirements for TODS, along with additional information about design and sign location are explained in Iowa DOT publication *Guide to Iowa Outdoor Advertising Sign Regulations*.

Specifications for TODS, including information about design and sign location, are also presented in the *MUTCD*.

Businesses and attractions seeking TODS must submit an application to the Iowa DOT and receive approval from a committee of professionals with expertise in signage, advertising and economic development. This committee meets monthly to review and approve applications.

Sign Plan Action #4

Businesses and privately owned attractions in the Loess Hills National Scenic Byway Corridor should be encourage to evaluate the need for, and apply to receive approval to install, tourist oriented directional signs.

Interpretive Signs

Interpretive signs at selected sites are an excellent way to enhance the traveler's experience during their trip in the Loess Hills National Scenic Byway Corridor. Interpretive signs not only provide information, but give travelers an opportunity to immerse themselves in the region by engaging their mind or body through the use of questions or suggested activities. The messages on these signs need to be uniform, consistent and reinforce the region's identity. The signs should be constructed with high quality materials and installed for easy access by the reader.

The development and implementation of an interpretive plan is an essential step in providing travelers with information and educational opportunities in the Loess Hills National Scenic Byway Corridor. Schmeckle Reserve interpreters completed an Interpretive Master Plan for the Loess Hills National Scenic Byway in 2015. This plan lays out a comprehensive interpretive program, including the design, fabrication and placement of interpretive signs, for the Scenic Byway Corridor as well as complementary messaging and marketing. Prototype interpretive signs for sites in the Loess Hills National

Scenic Byway Corridor have been developed. Illustrations of these signs are included at the end of this chapter.

Sign Plan Action #5

*An inventory of interpretive sign needs was conducted as part of the evaluation of existing amenities in the Loess Hills National Scenic Byway Corridor. This inventory produced recommendations for the installation of interpretive signs at attractions. These recommendations are presented below. With the 2015 completion of the Loess Hills National Scenic Byway Interpretive Master Plan, stakeholder organizations responsible for the operation and maintenance of these attractions should work together to design, fabricate, and install the recommended interpretive signs. The remaining attractions without interpretive signs should then be prioritized for their installation. In addition, as new attractions are identified and developed the responsible stakeholder organization should ensure that interpretive signs are installed as needed. The design, fabrication, installation and maintenance of interpretive signs should follow National Park Service recommendations presented in *Wayside Exhibit Guidelines—The ABC's of Planning, Design, and Fabrication* (Hopkins).*



Loess Hills National Scenic Byway Experience Hub Concept Design, Schmeckle Reserve Interpreters

Interpretive Sign Recommendations for Attractions in the Loess Hills National Scenic Byway Corridor

County	Site
Plymouth	Broken Kettle Grassland Five Ridge Prairie Area (native prairie theme) Hillview Recreation Area (historical theme)
Woodbury	Iowa Welcome Center and Sergeant Floyd Riverboat Museum (river theme) Inkapaduta Historical Marker Loess Ridge Nature Center Smithland Museum and Log Cabin (historical theme) Southwood Conservation Area War Eagle Monument
Monona	Loess Hills Wildlife Area Preparation Canyon State Park (historical and natural resource themes) Preparation Town Site (historical theme) South Jordan Cemetery Turin Man Archeological Site
Harrison	Larpenteur Family Burial Site Murray Hill Scenic Overlook Sawmill Hollow Area
Pottawattamie	Hitchcock Nature Area National Western Historical Trails Center
Mills	Chief Waubonsie Historical Marker Foothills Park Mile Hill Lake Salem Church/Plummer Cemetery (early settler and German heritage theme)
Fremont	Pinky's Glen Waubonsie State Park (historic or natural resource theme)

Interpretive Signs at Interstate Rest Areas

Interpretive signs should be installed at all interstate rest areas in the Loess Hills National Scenic Byway Corridor. These signs will reach and involve travelers on the interstate highways who may not have planned to visit the Loess Hills. Interpretive signs at interstate rest areas may entice those travelers to return and more fully explore the Loess Hills and travel the Loess Hills National Scenic Byway.

Currently there are no interpretive signs at rest areas on Interstates 29, 80, or 680 in the Loess Hills National Scenic Byway Corridor. Rest areas along the Interstates through and adjacent to the Loess Hills National Scenic Byway Corridor are exceptional locations for interpretive signs. In almost all cases, the Loess Hills are visible to travelers at these rest areas. The signs will provide all travelers at interstate rest areas an opportunity to learn about and gain an appreciation for the Loess Hills.

Loess Hills Community & Attraction Recognition Signs

The marketing plan for the Loess Hills National Scenic Byway proposes the creation of a hospitality training program for residents of communities and staff at attractions in the Corridor. Participation in the hospitality program will improve the knowledge and skills of residents and staff to assist travelers in the Scenic Byway Corridor.

Recognition signs for communities attractions in the Scenic Byway Corridor will be an important part of the hospitality program. Recognition signs will be awarded to communities and attractions in the Corridor once local residents and staff have completed the activities in the Loess Hills Hospitality Program. Community and attraction recognition signs will indicate to travelers the availability of information and services to help them enjoy their trip in the Loess Hills National Scenic Byway Corridor.

Sign Plan Action #6

Communities and attractions in the Scenic Byway Corridor will be encouraged to participate in the hospitality program. Western Iowa Tourism Region with other stakeholders will organize and conduct the hospitality training. The Tourism Region will certify completion of the program by communities and attractions and award the recognition signs. Communities attractions awarded recognition signs should contact the county engineer or Iowa DOT for assistance with their installation.

Bicycle Route Signs

According to the MUTCD, bicycle-use related signs on highways and bikeways serve three basic purposes:

- Regulating bicycle usage;
- Directing bicyclists along pre-established routes; and
- Warning bicyclists of unexpected conditions.

The display of bicycle route identification signs can help guide bicyclists along designated routes and warn them of hazardous conditions without lessening the value of their bicycling experience. Bicycle route signs should be placed at intervals frequent enough to keep bicyclists informed of changes in route direction and to remind motorists of the presence of bicyclists.

The MUTCD contains the standards, specifications and installation guidelines for bicycle route signs. The design, fabrication and placement of signs for bicycle facilities should comply with these MUTCD guidelines. Bicycle route signs should be uniform in shape, color, symbols, lettering, wording and illumination or reflectorization. All signs should be reflectorized for bicycle trails as well as for shared roadway and designated bicycle lane facilities.

The “Bicycle Routes” chapter in the Corridor Management Plan identifies proposed bicycle routes in the Loess Hills National Scenic Byway Corridor. The bicycle routes are located primarily along roadways in the Corridor and have been categorized into different ride types to match the interests and skill levels of a variety of bicyclists. Members of bicycle clubs in western Iowa who assisted with the selection of bicycle routes in the Corridor indicated that signs are needed to warn motorists of the presence of bicyclists on designated routes and to make bicyclists and motorists aware of hazardous driving and riding conditions. Bicycle club members expressed a strong desire for a map as a complement to signs to help guide bicyclists along selected routes in the Scenic Byway Corridor.

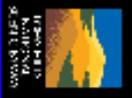
Sign Plan Action #7

City, county and state officials responsible for the placement of signs along designated bicycle routes in the Loess Hills National Scenic Byway Corridor should install and maintain bicycle route signs needed to advise motorists of the presence of bicyclists and warn motorists and bicyclists of hazardous driving and riding conditions. Bicycle route signs should be consistent with, and complemented by a map of bicycle routes in the Scenic Byway Corridor.

Maps and Tables

Loess Hills National Scenic Byway Sign Plan - Map

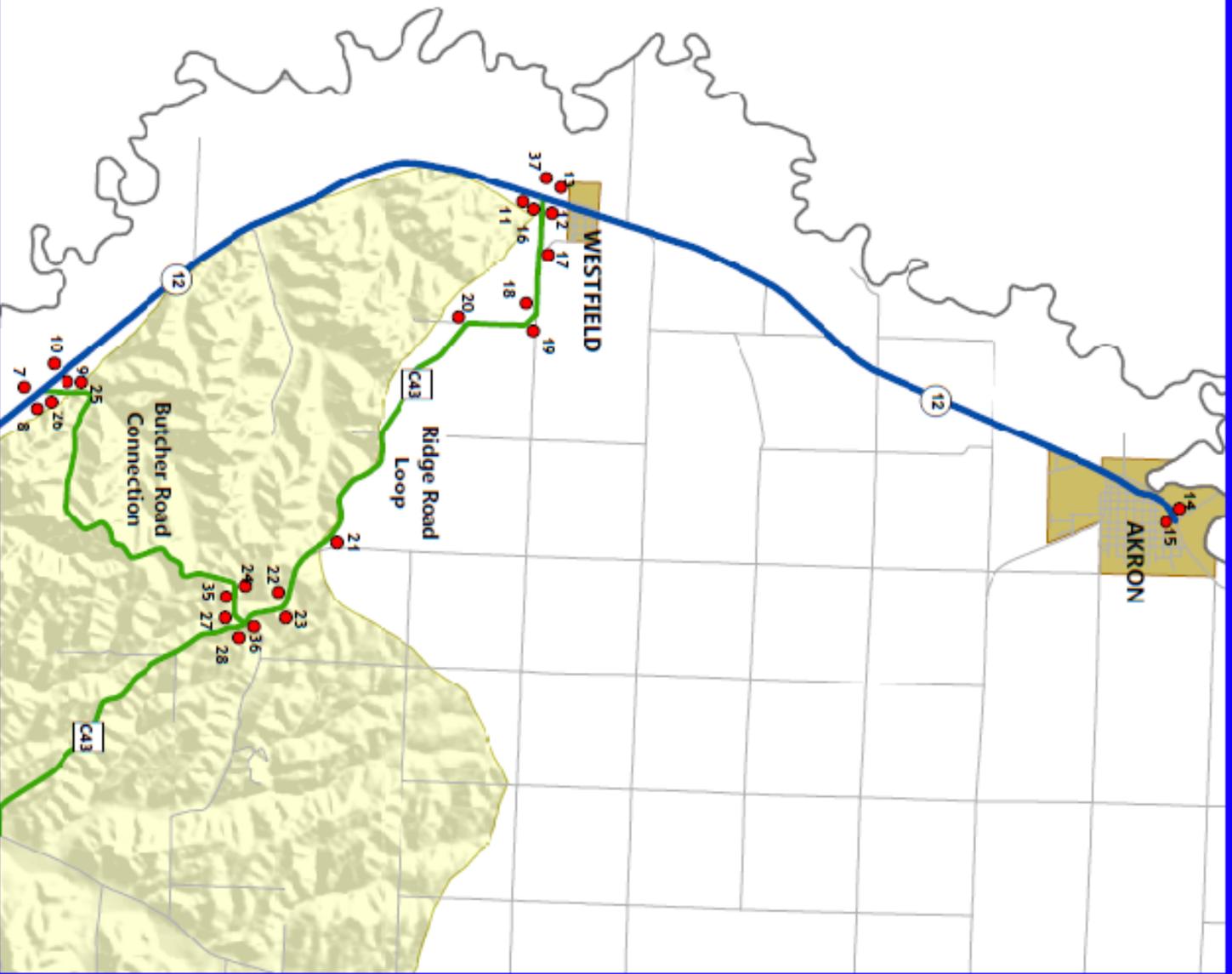
Loess Hills National Scenic Byway Sign Plan Recommendations - Table



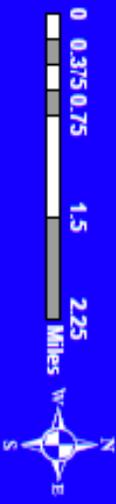
Loess Hills Scenic Byway Sign Plan (North) Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads



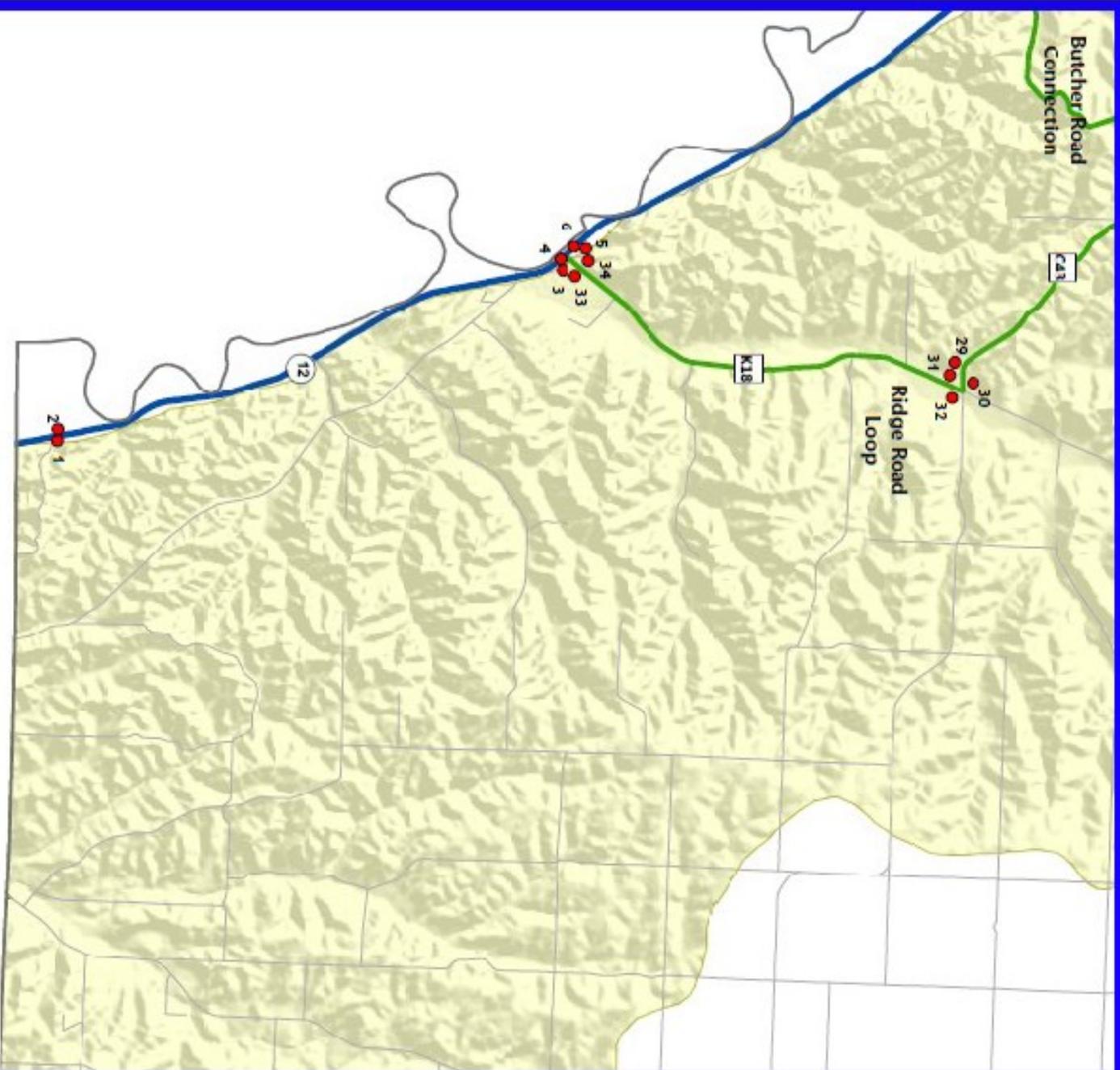


LOESS HILLS
SCENIC BYWAY

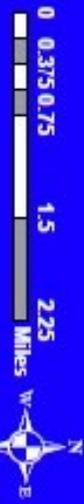
Loess Hills Scenic Byway Sign Plan (South) Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pictawantame County GIS Department



-  Sign Location
-  City or Town
-  Loess Hills Landform
-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Roads





LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations Plymouth County, IA

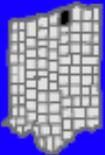
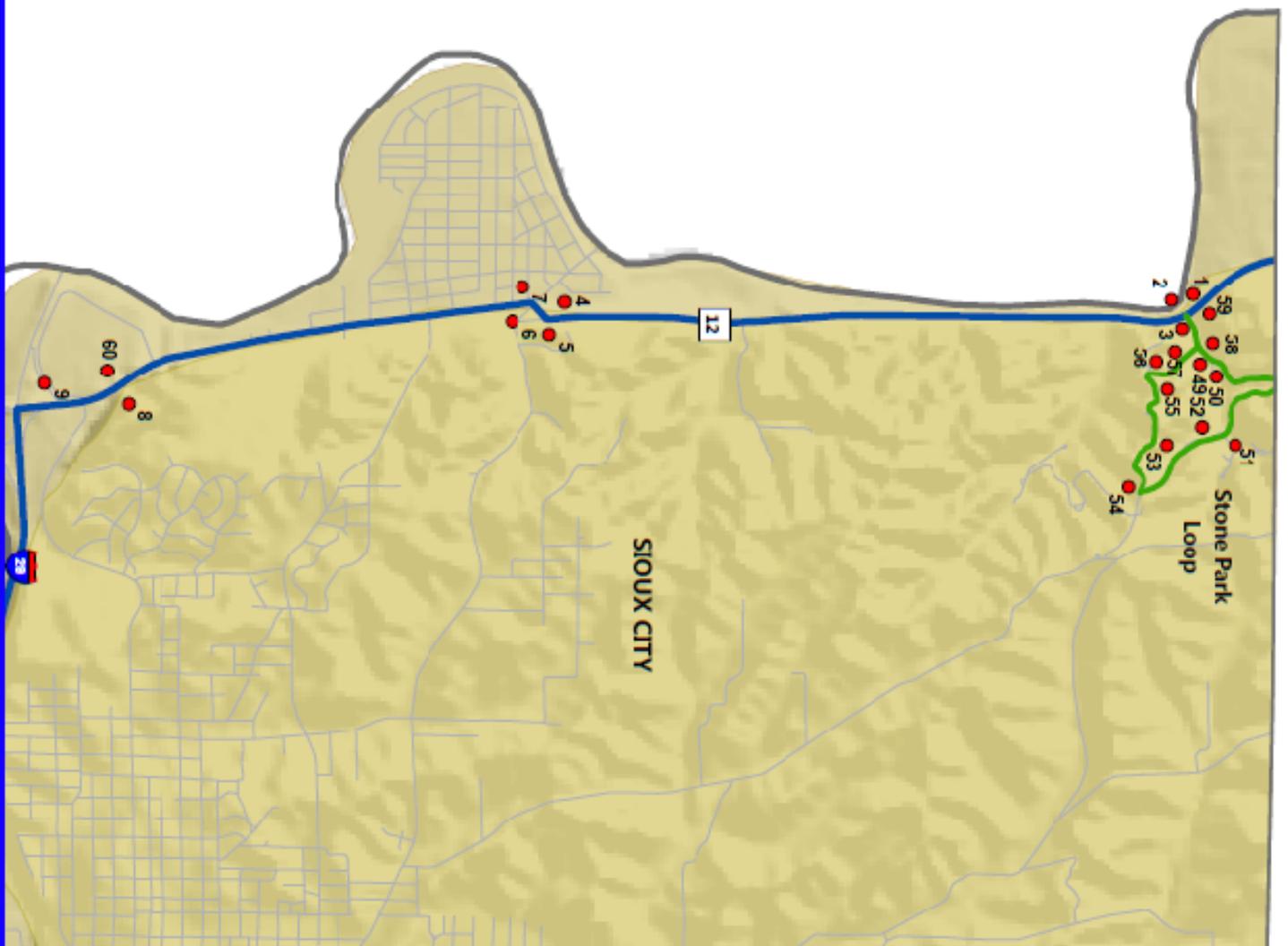
Loess Hills Scenic Byway Corridor Management Plan
Science Center Hills Resource Conservation & Development
Prepared by Pettibonville County GIS Department

Sign#	Type	Exists	Recommendations
1	1	Y	None
2	1	Y	None
3	6	Y	None
4	1	Y	None
5	1	Y	None
6	6	Y	None
7	1	Y	None
8	6	Y	None
9	1	Y	None
10	6	Y	None
11	6	Y	None
12	1	Y	None
13	6	Y	None
14	1	Y	None
15	1	Y	Need Sign END
16	3	Y	None
17	3	Y	None
18	6	Y	None
19	5	Y	None
20	2	Y	None
21	2	Y	None
22	6	Y	None
23	3	Y	None
24	3	Y	None
25	3	Y	None
26	3	Y	None
27	3	Y	None
28	6	Y	None
29	5	Y	None
30	3	Y	None
31	3	Y	None
32	6	Y	None
33	3	Y	None
34	3	N	Need Signs: Loess Hills Scenic Byway: Ridge Road Loop: END
35	3	N	Need Signs: Loess Hills Scenic Byway: Butcher Road Connection: END
36	6	N	Need Signs: Loess Hills Scenic Byway: Ridge Road Loop: R/L Arrow
37	1	N	Need Sign: Loess Hills scenic byway



Loess Hills Scenic Byway Sign Plan (North) Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads

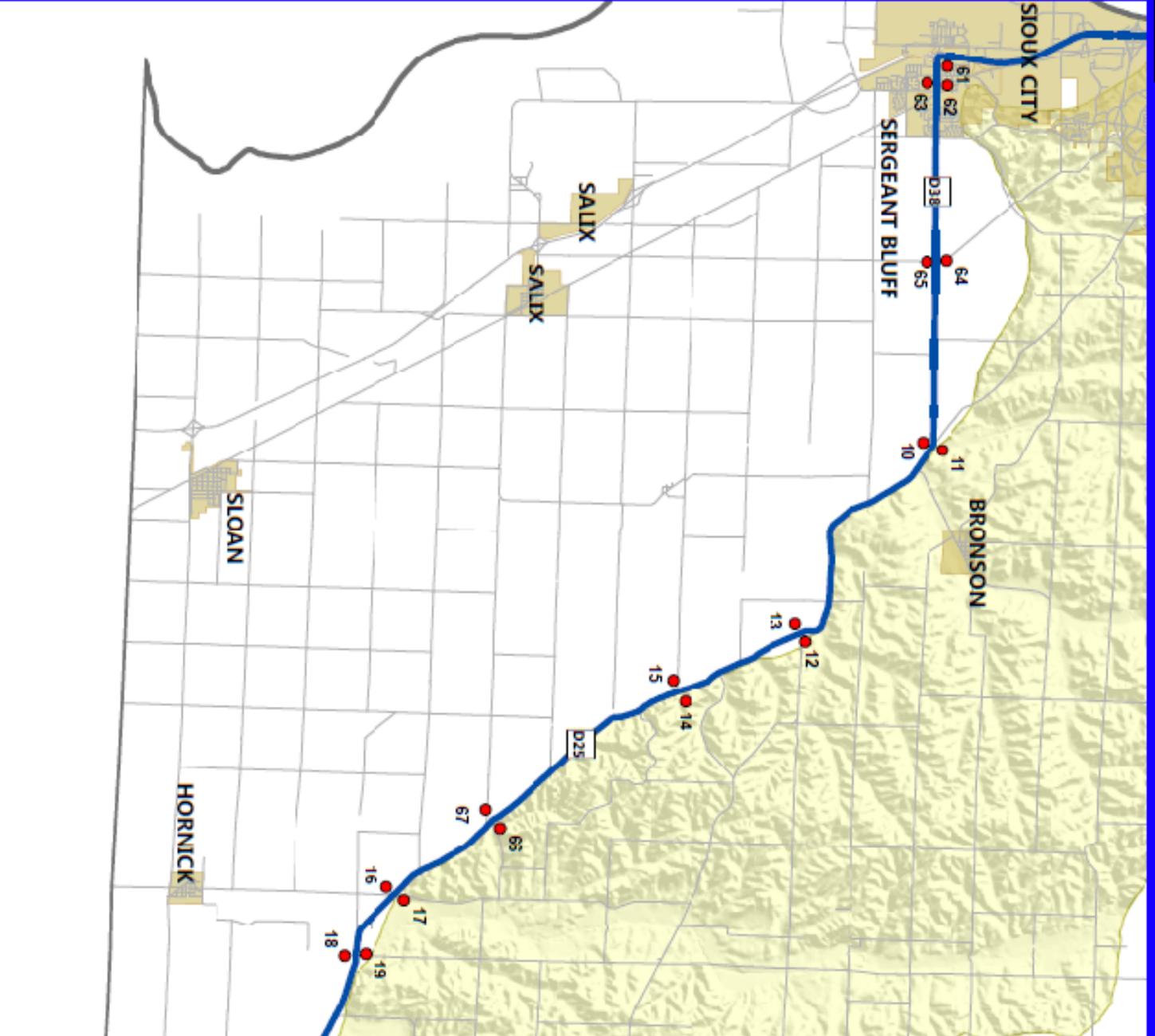




Loess Hills Scenic Byway Sign Plan (Central) Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Postwatamite County GIS Department



- Sign Location
- City or Town
- Loess Hills Landforms
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads



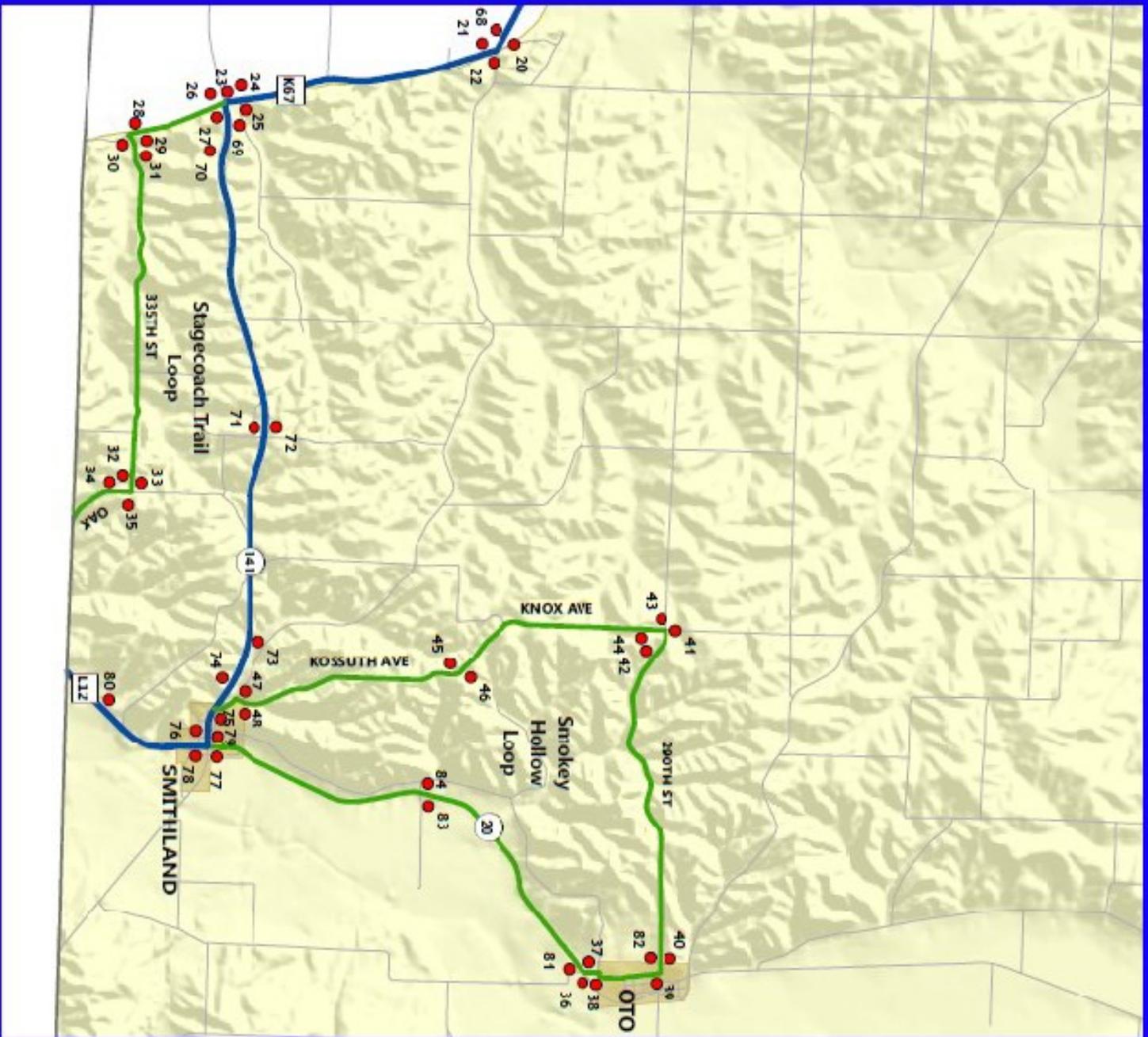


LOESS HILLS
SCENIC BYWAY
SIGN PLAN

Loess Hills Scenic Byway Sign Plan (South) Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pechawatamie County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads





Loess Hills Scenic Byway Sign Plan Recommendations Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Loess Hills Resource Conservation & Development
Prepared for: Polk/Iowa/Illinois County GIS Department

Sign #	Type	Exists	Recommendations
1	6	Y	None
2	1	Y	None
3	4	Y	None
4	1	Y	None
5	4	Y	None
6	1	Y	None
7	1	Y	None
8	1	Y	None
9	Special	Y	None
20	1	Y	None
11	1	Y	Need Sign: Add Left Arrow
12	1	Y	None
13	1	Y	None
14	1	Y	None
15	1	Y	None
16	1	Y	None
17	1	Y	None
18	1	Y	None
19	1	Y	None
20	1	Y	None
21	1	Y	None
22	4	Y	None
23	4	Y	None
24	3	Y	Need Sign: Add Forward Arrow
25	1	Y	None
26	3	Y	None
27	3	Y	None
28	6	Y	None
29	3	Y	None
20	2	Y	None
31	6	Y	None
32	6	Y	None
33	3	Y	None
34	2	Y	None
35	6	Y	None
36	3	Y	None
37	6	Y	None
38	6	Y	None
39	6	Y	None
40	3	Y	None
41	6	Y	None
42	3	Y	None
43	3	Y	None
44	6	Y	None
45	3	Y	None
46	3	Y	None
47	6	Y	Need Sign: Add END
48	3	Y	None
49	3	Y	None
50	3	Y	None



LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared for: Polk/Seminole County GIS Department

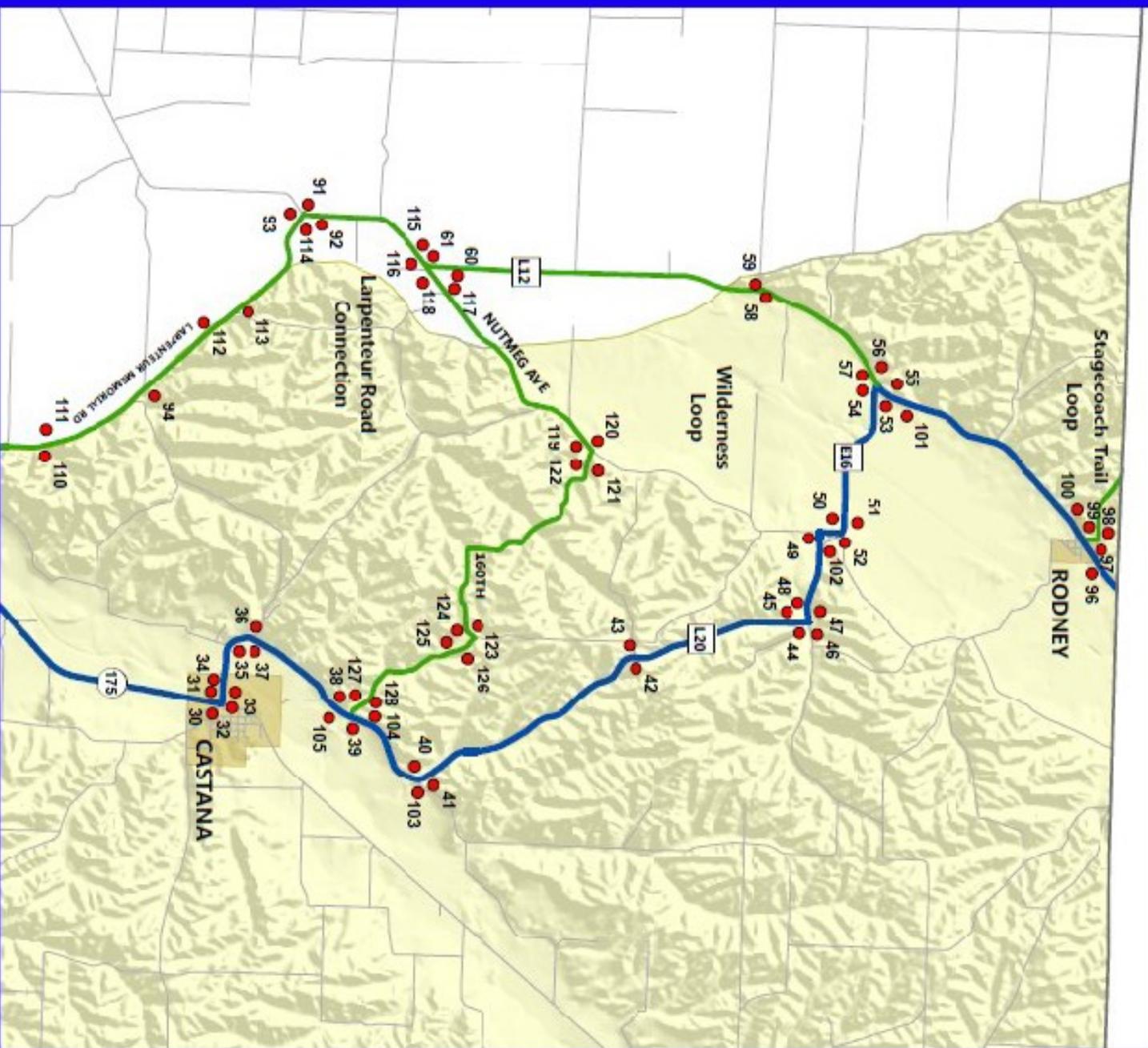
Sign #	Type	Exists	Recommendations
51	3	Y	None
52	3	Y	None
43	4	Y	None
54	6	Y	None
55	6	Y	None
56	6	Y	None
57	3	Y	None
58	3	Y	None
59	1	N	Need Sign: Loess Hills Scenic Byway
40	1	N	Need Sign: Loess Hills Scenic Byway
61	Special	N	Need Sign: Special Route ID
62	1	N	Need Sign: Loess Hills Scenic Byway
63	1	N	Need Sign: Loess Hills Scenic Byway
64	1	N	Need Sign: Loess Hills Scenic Byway
65	1	N	Need Sign: Loess Hills Scenic Byway
66	1	N	Need Sign: Loess Hills Scenic Byway
67	1	N	Need Sign: Loess Hills Scenic Byway
68	4	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
69	4	N	Need Sign: Loess Hills Scenic Byway: Right Arrow Stagecoach Trail Loop: Left Arrow
70	1	N	Need Sign: Loess Hills Scenic Byway
71	1	N	Need Sign: Loess Hills Scenic Byway
72	1	N	Need Sign: Loess Hills Scenic Byway
73	1	N	Need Sign: Loess Hills Scenic Byway
74	6	N	Need Sign: Loess Hills Scenic Byway: Smokey Hollow Loop: Left Arrow
75	6	N	Need Sign: Loess Hills Scenic Byway: Smokey Hollow Loop: Right Arrow
76	4	N	Need Sign: Loess Hills Scenic Byway: Right Arrow Smokey Hollow Loop: Left Arrow
77	3	N	Need Sign: Loess Hills Scenic Byway: Smokey Hollow Loop
79	3	N	Need Sign: Loess Hills Scenic Byway: Smokey Hollow Loop: End
78	4	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
80	1	N	Need Sign: Loess Hills Scenic Byway
81	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
82	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
83	2	N	Need Sign: Loess Hills Scenic Byway
84	2	N	Need Sign: Loess Hills Scenic Byway



Loess Hills Scenic Byway Sign Plan (North) Morona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pettawanda County GIS Department



Legend:

- Monona Signplan
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads

Scale: 0, 0.45, 0.9, 1.8, 2.7 Miles

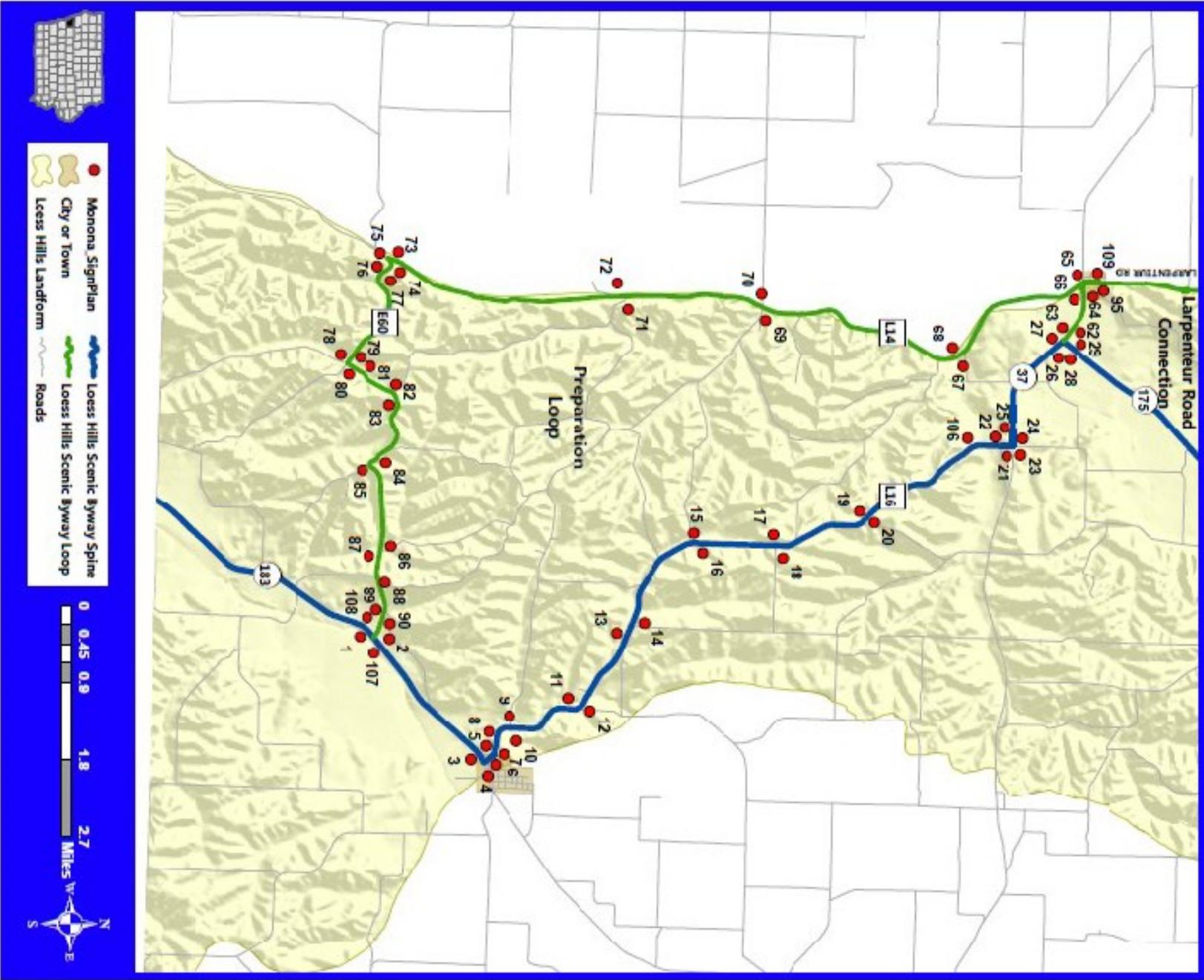
North Arrow



Loess Hills Scenic Byway Sign Plan (South) Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawatomie County GIS Department





LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Loess Hills Resource Conservation & Development
 Prepared By: Pedersdahl County GIS Department

Sign #	Type	Exists	Recommendations
1	6	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop: Left Arrow (Replace white sign)
2	6	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop: Right Arrow (Replace white sign)
3	4	Y	Need Signs: Loess Hills Scenic Byway: Left Arrow (Replace white sign)
4	4	Y	Need Signs: Loess Hills Scenic Byway: Double Arrow (Right/Forward) (Replace white sign)
5	4	Y	Need Sign: Right Arrow (Replace white sign/blue arrow with blue sign/white arrow)
6	4	Y	Need Sign: Left Arrow (Replace white sign/blue arrow with blue sign/white arrow)
7	1	Y	None
8	4	Y	Need Sign: Right Arrow (Replace white sign/blue arrow with blue sign/white arrow)
9	1	Y	None
10	1	Y	None
11	1	Y	Straighter sign post
12	1	Y	None
13	1	Y	None
14	1	Y	None
15	1	Y	None
16	1	Y	straighter sign post
17	1	Y	None
18	1	Y	None
19	1	Y	None
20	1	Y	None
21	4	Y	Need Sign: Left Arrow (Replace white sign/blue arrow with blue sign/white arrow)
22	1	Y	None
23	4	Y	Need Signs: Loess Hills Scenic Byway: Double Arrow (Left/Forward) (Replace white sign)
24	1	Y	Need Sign: Loess Hills Scenic Byway (Replace white sign)
25	4	Y	Need Signs: Loess Hills Scenic Byway: Right Arrow (Replace white signs)
26	6	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop: Forward Arrow (Replace white sign)
27	1	Y	Need Sign: Loess Hills Scenic Byway (Replace white sign)
28	1	Y	Need Sign: Loess Hills Scenic Byway (Replace white sign)
29	6	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop: Right arrow (Replace white sign)
30	4	Y	Need Signs: Loess Hills Scenic Byway: Left Arrow (Replace white signs)
31	1	Y	Need Sign: Loess Hills Scenic Byway (Replace white sign)
32	4	Y	Need Signs: Loess Hills Scenic Byway: Double Arrow (Right/Forward) (Replace white sign)
33	1	Y	None
34	4	Y	Need Sign: Right Arrow (Replace white sign/blue arrow with blue sign/white arrow)
35	1	Y	Straighter sign post
36	1	Y	None
37	1	Y	None
38	1	Y	None
39	1	Y	None
40	1	Y	None
41	1	Y	None
42	1	Y	None
43	1	Y	None
44	4	Y	Need Sign: Left Arrow (Replace white sign/blue arrow with blue sign/white arrow)
45	1	Y	None
46	4	Y	Need Sign: Double Arrow (Left/Forward)
47	1	Y	None
48	4	Y	Need Sign: Right Arrow (Replace white sign/blue arrow with blue sign/white arrow)
49	1	Y	None
50	1	Y	None



Loess Hills Scenic Byway Sign Plan Recommendations Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Loess Hills Resource Conservation & Development
 Prepared by: Performance-based County GIS Department

Sign #	Type	Exists	Recommendations
51	1	Y	None
52	1	Y	Need Sign: Double Arrow (Left/Right)
53	6	Y	Need Signs: Loess Hills Scenic Byway: Right Arrow; Wilderness loop: Left Arrow
54	1	Y	None
55	6	Y	Need Signs: Loess Hills Scenic Byway: Left Arrow; Wilderness Loop: Forward Arrow
56	2	Y	Need sign: Wilderness Loop
57	4	Y	Need Signs: Wilderness Loop: END
58	2	Y	None
59	2	Y	None
60	2	Y	None
61	2	Y	Move sign back before intersection; Need Sign: Left Arrow
62	3	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop (Replace white signs)
63	3	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop: END
64	5	Y	Need Signs: Loess Hills Scenic Byway: Right/Left Arrow (Replace white signs)
65	5	Y	Need Signs: Loess Hills Scenic Byway: Right/Left/Forward Arrow (Replace white signs)
66	5	Y	Need sign: Double Arrow (right/forward)
67	2	Y	None
68	2	Y	None
69	2	Y	None
70	2	Y	None
71	2	Y	None
72	2	Y	Straighter sign post
73	5	Y	Need Sign: Left Arrow (Replace white sign/blue arrow with blue sign/white arrow)
74	2	Y	None
75	2	Y	Need Sign: Double Arrow (Left/Right)
76	2	Y	None
77	2	Y	Need Sign: Right Arrow (Replace white sign/blue arrow with blue sign/white arrow)
78	5	Y	Need Sign: Left Arrow (Replace white sign/blue arrow with blue sign/white arrow)
79	2	Y	None
80	2	Y	None
81	5	Y	Need Sign: Right Arrow (Replace white sign/blue arrow with blue sign/white arrow)
82	2	Y	None
83	2	Y	Need Sign: Loess Hills Scenic Byway
84	2	Y	None
85	2	Y	None
86	2	Y	None
87	2	Y	None
88	2	Y	None
89	3	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop: END
90	3	Y	Need Signs: Loess Hills Scenic Byway: Preparation Loop
91	5	Y	Need Sign: Left Arrow (Replace white sign/blue arrow with blue sign/white arrow)
92	2	Y	None
93	2	Y	None
94	2	Y	Sign needs to be pivoted 90 degrees counterclockwise
95	3	Y	Need Signs: Loess Hills Scenic Byway: Larpenteur Road Connection
96	1	N	Need Sign: Loess Hills Scenic Byway
97	6	N	Need Signs: Loess Hills Scenic Byway: Stagecoach Trail Loop: Right Arrow
98	3	N	Need Signs: Loess Hills Scenic Byway: Stagecoach Trail Loop
99	3	N	Need Signs: Loess Hills Scenic Byway: Stagecoach Trail Loop: END
100	1	N	Need Sign: Loess Hills Scenic Byway



LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Loess Hills Resource Conservation & Development
Prepared by: Pettawabooks County GIS Department

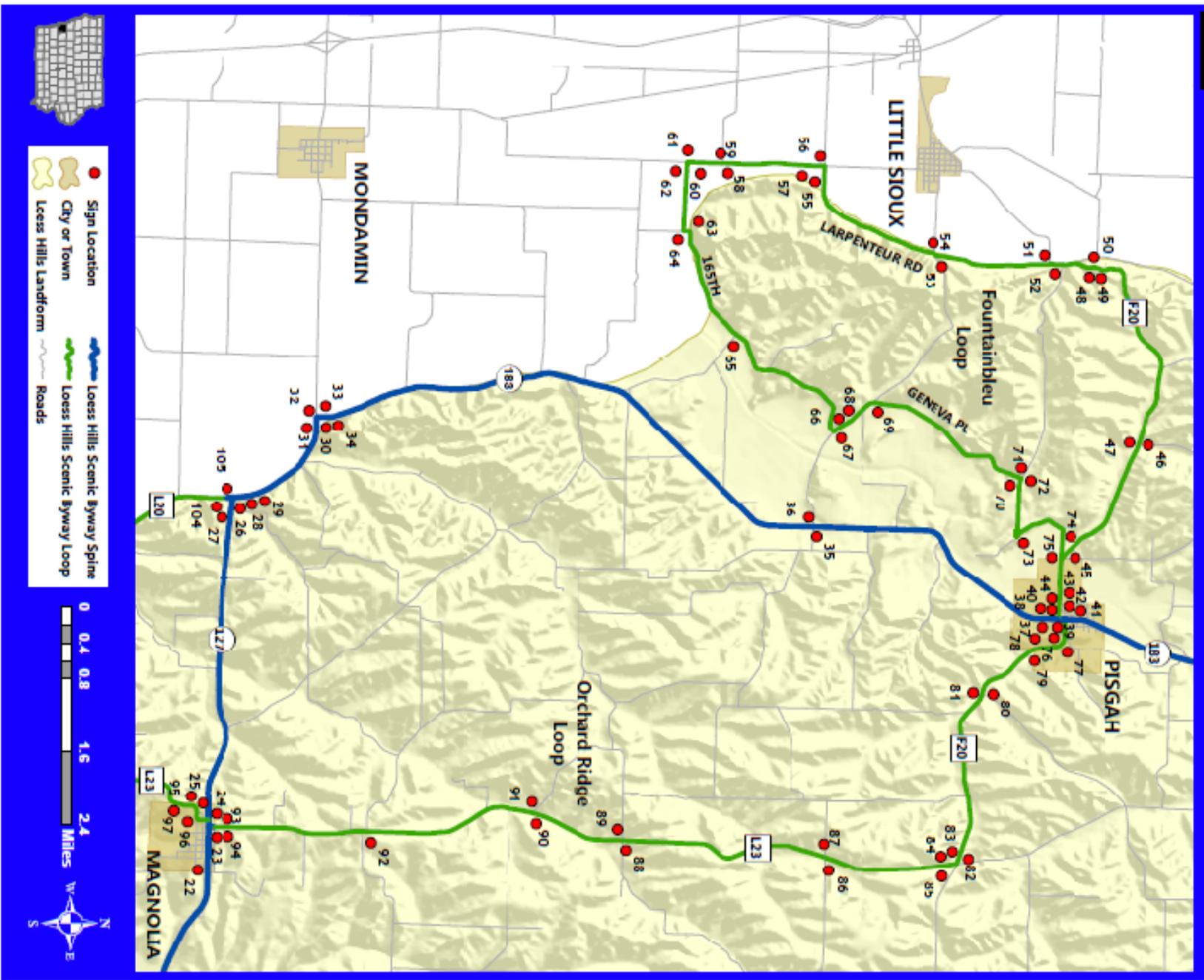
Sign #	Type	Exists	Recommendations
101	1	N	Need Sign: Loess Hills Scenic Byway
107	1	N	Need Sign: Loess Hills Scenic Byway
108	1	N	Take Down
109	6	N	Need Sign: Loess Hills Scenic Byway: Wilderness Loop: Right Arrow
105	6	N	Need Sign: Loess Hills Scenic Byway: Wilderness Loop: Left Arrow
106	1	N	Need Sign: Loess Hills Scenic Byway
107	1	N	Need Sign: Loess Hills Scenic Byway
108	1	N	Need Sign: Loess Hills Scenic Byway
109	3	N	Need Sign: Loess Hills Scenic Byway: Larpentour Road Connector: END
110	2	N	Need Sign: Loess Hills Scenic Byway
111	2	N	Need Sign: Loess Hills Scenic Byway
112	2	N	Need Sign: Loess Hills Scenic Byway
113	2	N	Need Sign: Loess Hills Scenic Byway
114	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
115	3	N	Need Sign: Loess Hills Scenic Byway: Larpentour Road Connector
116	3	N	Need Sign: Loess Hills Scenic Byway: Larpentour Road Connector: END
117	5	N	Need Sign: Loess Hills Scenic Byway: Double Arrow (Right/Left)
118	2	N	Need Sign: Loess Hills Scenic Byway
119	4	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
120	2	N	Need Sign: Loess Hills Scenic Byway
121	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
122	2	N	Need Sign: Loess Hills Scenic Byway
123	2	N	Need Sign: Loess Hills Scenic Byway
124	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
125	2	N	Need Sign: Loess Hills Scenic Byway
126	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
127	3	N	Need Sign: Loess Hills Scenic Byway: Right Arrow: Wilderness loop: END
128	3	N	Need Sign: Loess Hills Scenic Byway: Right Arrow: Wilderness loop



Loess Hills Scenic Byway Sign Plan (North) Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Portawandana's County GIS Department

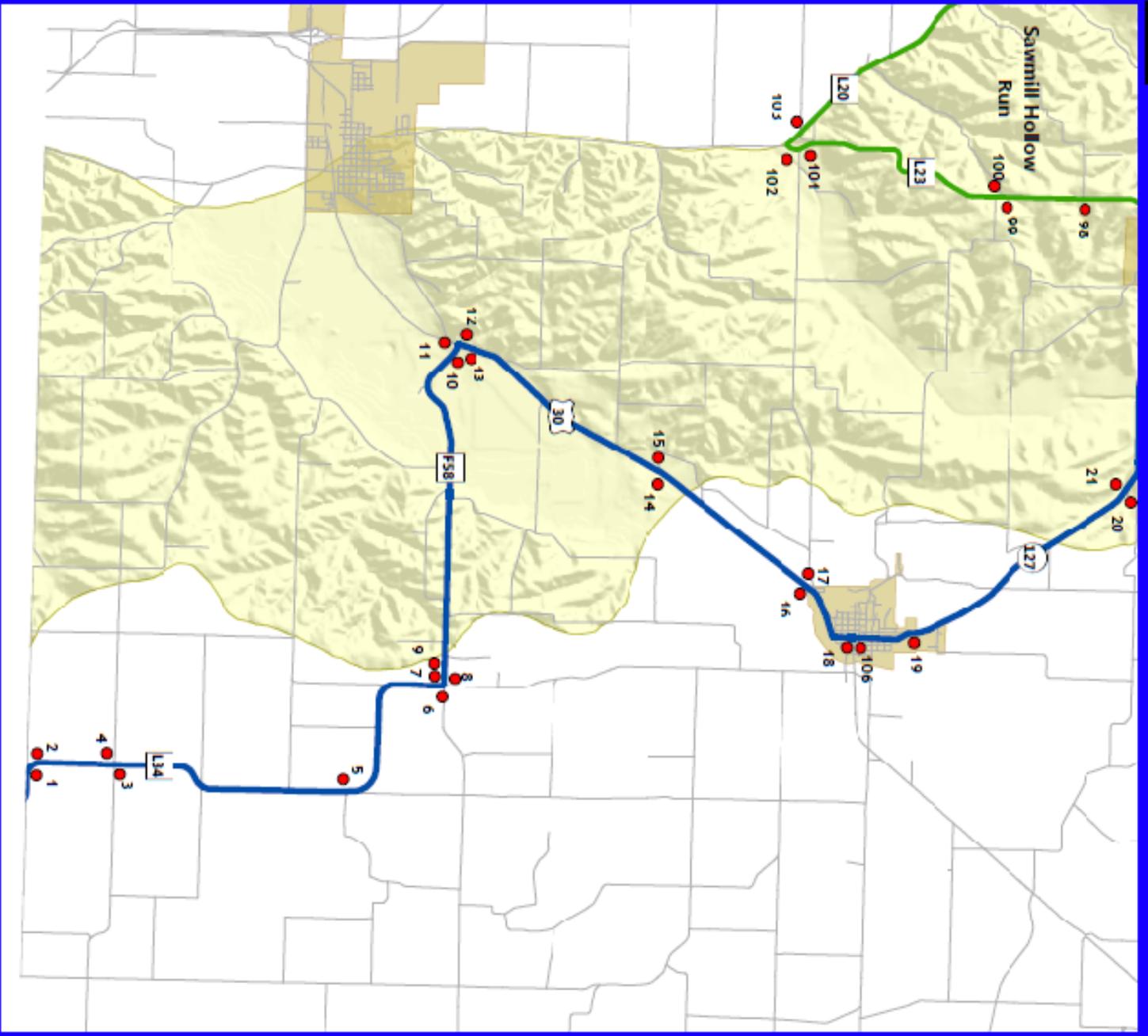




Loess Hills Scenic Byway Sign Plan (South) Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Fortwauderdale County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads





LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

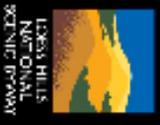
Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Science Center, Loess Hills Resource Conservation & Development

Prepared by: Polk/Schubert County GIS Department

Sign#	Type	Exists	Recommendations
1	1	Y	None
2	1	Y	None
3	1	Y	None
4	1	Y	None
5	1	Y	None
6	4	Y	None
7	1	Y	None
8	1	Y	None
9	4	Y	None
10	4	Y	None
11	1	Y	None
12	4	Y	None
13	1	Y	None
14	1	Y	None
15	1	Y	None
16	1	Y	None
17	1	Y	None
18	4	Y	None
19	1	Y	None
20	1	Y	None
21	1	Y	None
22	1	Y	None
23	6	Y	None
24	1	Y	None
25	4	Y	None
26	1	Y	Need Sign Right/Left Arrow
27	1	Y	None
28	1	Y	None
29	1	Y	None
30	4	Y	None
31	1	Y	None
32	4	Y	None
33	4	Y	None
34	1	Y	None
35	1	Y	None
36	1	Y	None
37	6	Y	None
38	1	Y	None
39	6	Y	None
40	6	Y	None
41	6	Y	None
42	4	Y	None
43	3	Y	None
44	3	Y	None
45	2	Y	None
46	2	Y	None
47	2	Y	None
48	2	Y	None
49	6	Y	Need Sign Change Arrow to White/Blue Background (Right Arrow)
50	2	Y	None

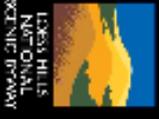


Loess Hills Scenic Byway Sign Plan Recommendations

Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Science Center Hills Resource Conservation & Development
 Prepared for Pottawatomie County GIS Department

Sign #	Type	Exists	Recommendations
51	3	Y	Put Loop ID Sign Below Loess Hills Sign
52	2	Y	Need Sign: Replace Loess Hills Scenic Byway: It has bullet holes
53	2	Y	None
54	2	Y	None
55	2	Y	None
56	2	Y	None
57	5	Y	Need Sign: Change Arrow to White/Blue Background (Right Arrow)
58	2	Y	None
59	2	Y	None
60	2	Y	None
61	5	Y	Need Sign: Change Arrow to White/Blue Background (Left Arrow)
62	2	Y	None
63	2	Y	None
64	2	Y	Need Sign: Replace Loess Hills Scenic Byway: It has bullet holes
65	2	Y	None
66	2	Y	None
67	2	Y	None
68	5	Y	Need Sign: Change Arrow to White/Blue Background (Right Arrow)
69	2	Y	None
70	5	Y	Need Sign: Change Arrow to White/Blue Background (Right Arrow)
71	2	Y	None
72	5	Y	Need Sign: Change Arrow to White/Blue Background (Left Arrow)
73	5	Y	Need Sign: Change Arrow to White/Blue Background (Right Arrow)
74	2	Y	None
75	5	Y	Need Sign: Change Left Arrow to Double Arrow (Left and Forward)
76	3	Y	None
77	3	Y	None
78	2	Y	None
79	2	Y	None
80	2	Y	None
81	2	Y	None
82	7	Y	None
83	6	Y	None
84	2	Y	None
85	6	Y	None
86	2	Y	None
87	2	Y	None
88	2	Y	None
89	2	Y	None
90	2	Y	None
91	2	Y	None
92	2	Y	None
93	3	Y	None
94	3	Y	None
95	3	Y	None
96	3	Y	None
97	2	Y	None
98	2	Y	None
99	2	Y	Need Sign: Replace Loess Hills Scenic Byway: It has bullet holes
100	2	Y	None



Loess Hills Scenic Byway Sign Plan Recommendations

Harrison County, IA

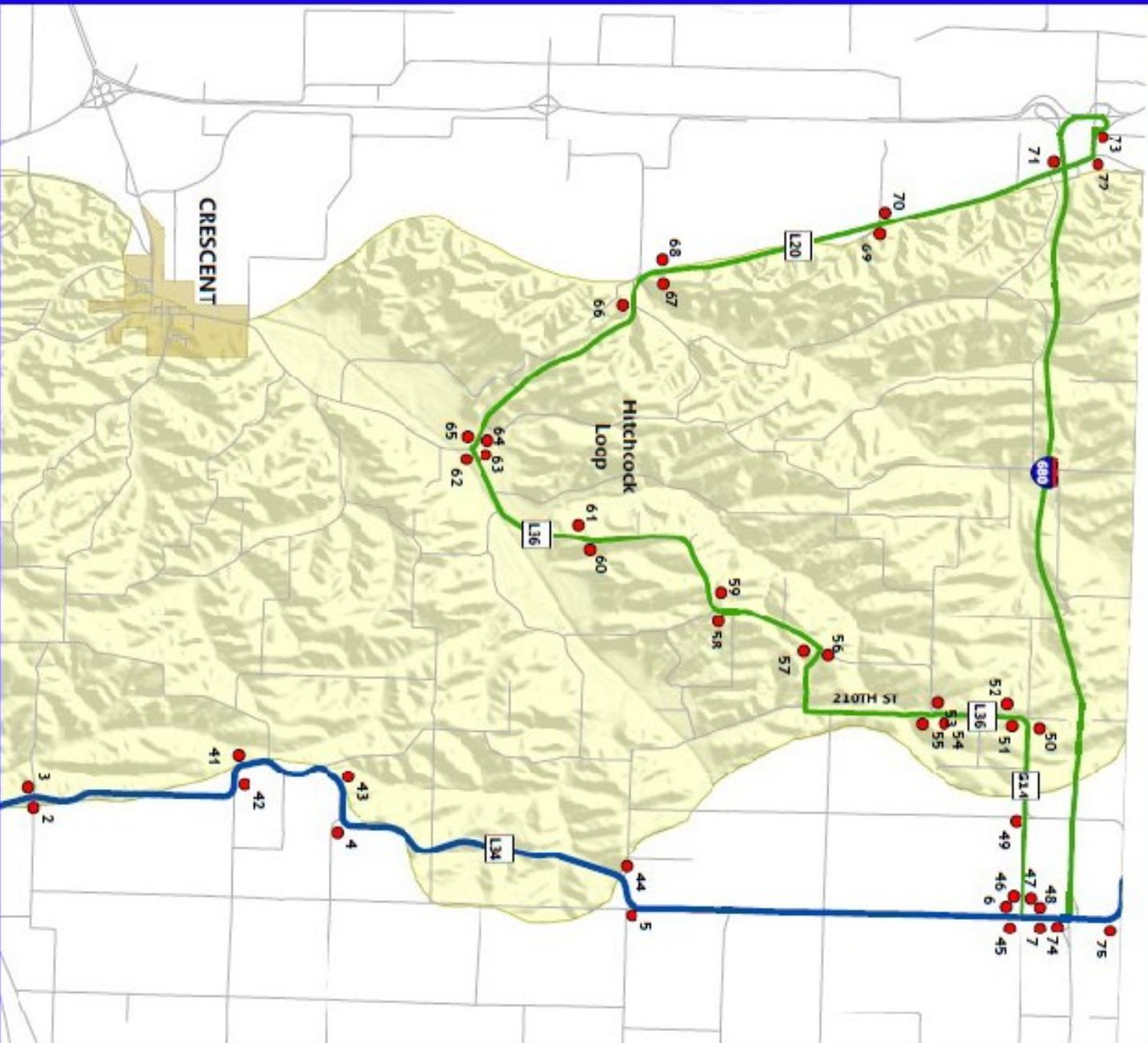
Loess Hills Scenic Byway Corridor Management Plan
 Source: Guide Hills Process Commission & Department
 Prepared by: Recommendations Group (2017) Department

Sign #	Type	Exists	Recommendations
101	2	Y	None
102	2	Y	None
103	6	Y	None
104	3	Y	None
105	3	Y	Need Sign: Add Arrow Forward)
106	4	N	Need Sign: Loess Hills Scenic Byway Left/Right Arrow



Loess Hills Scenic Byway Sign Plan (North) Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads



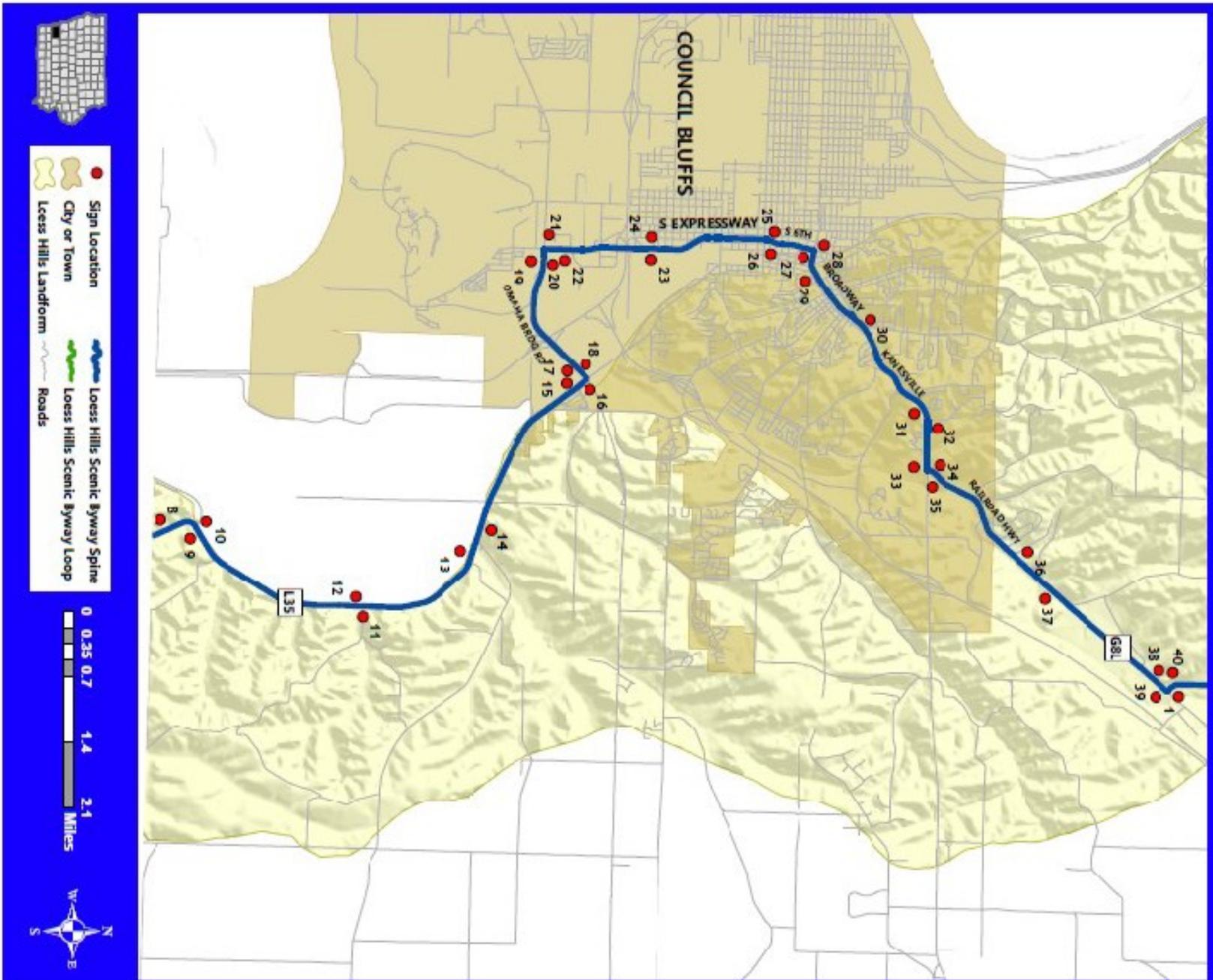


U.S. GEOLOGICAL SURVEY
BRIAN J. BOYD
2011

Loess Hills Scenic Byway Sign Plan (South) Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department





LOESS HILLS
NAT'L SCENIC
BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

Polk/Jackson County, IA

Loess Hills Scenic Corridor Management Plan

Source: Golden Hills Resource Commission & Development
Prepared by: Polk/Jackson County GIS Department

Sign #	Type	Exists	Recommendations
1	1	Y	None
2	1	Y	None
3	1	Y	None
4	1	Y	None
5	1	Y	None
6	1	Y	None
7	1	Y	None
8	1	N	Need Sign: Loess Hills Scenic Byway
9	1	N	Need Sign: Loess Hills Scenic Byway
10	4	N	Need Signs: Loess Hills Scenic Byway: Left Arrow
11	1	N	Need Sign: Loess Hills Scenic Byway
12	1	N	Need Sign: Loess Hills Scenic Byway
13	1	N	Need Sign: Loess Hills Scenic Byway
14	1	N	Need Sign: Loess Hills Scenic Byway
15	1	N	Need Sign: Loess Hills Scenic Byway
16	4	N	Need signs: Loess Hills scenic byway: Left Arrow
17	4	N	Need Signs: Loess Hills Scenic Byway: Right Arrow
18	1	N	Need Sign: Loess Hills Scenic Byway
19	1	N	Need Sign: Loess Hills Scenic Byway
20	4	N	Need Signs: Loess Hills Scenic Byway: Right Arrow
21	4	N	Need Signs: Loess Hills Scenic Byway: Left Arrow
22	1	N	Need Sign: Loess Hills Scenic Byway
23	1	N	Need Sign: Loess Hills Scenic Byway
24	1	N	Need Sign: Loess Hills Scenic Byway
25	1	N	Need Sign: Loess Hills Scenic Byway
26	1	N	Need Sign: Loess Hills Scenic Byway
27	4	N	Need Signs: Loess Hills Scenic Byway: Right Arrow
28	4	N	Need Signs: Loess Hills Scenic Byway: Left Arrow
29	1	N	Need sign: Loess hills scenic byway
30	1	N	Need Sign: Loess Hills Scenic Byway
31	1	N	Need Sign: Loess Hills Scenic Byway
32	1	N	Need Sign: Loess Hills Scenic Byway
33	4	N	Need Signs: Loess Hills Scenic Byway: Left Arrow
34	4	N	Need Signs: Loess Hills Scenic Byway: Right Arrow
35	1	N	Need Sign: Loess Hills Scenic Byway
36	1	N	Need Sign: Loess Hills Scenic Byway
37	1	N	Need Sign: Loess Hills Scenic Byway
38	1	N	Need Sign: Loess Hills Scenic Byway
39	4	N	Need Signs: Loess Hills Scenic Byway: Left Arrow
40	4	N	Need Signs: Loess Hills Scenic Byway: Right Arrow
41	1	N	Need Sign: Loess Hills Scenic Byway
42	1	N	Need Sign: Loess Hills Scenic Byway
43	1	N	Need Sign: Loess Hills Scenic Byway
44	1	N	Need Sign: Loess Hills Scenic Byway
45	6	N	Need Signs: Loess Hills Scenic Byway: Hitchcock Loop: Left Arrow
46	3	N	Need Signs: Loess Hills Scenic Byway: Hitchcock Loop: END
47	3	N	Need Signs: Loess Hills Scenic Byway: Hitchcock Loop
48	6	N	Need Signs: Loess Hills Scenic Byway: Hitchcock Loop: Right Arrow
49	2	N	Need Sign: Loess Hills Scenic Byway
50	5	N	Need Signs: Loess Hills Scenic Byway: Left Arrow



LOESS HILLS
LANDSCAPE
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

Pottawatomie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development

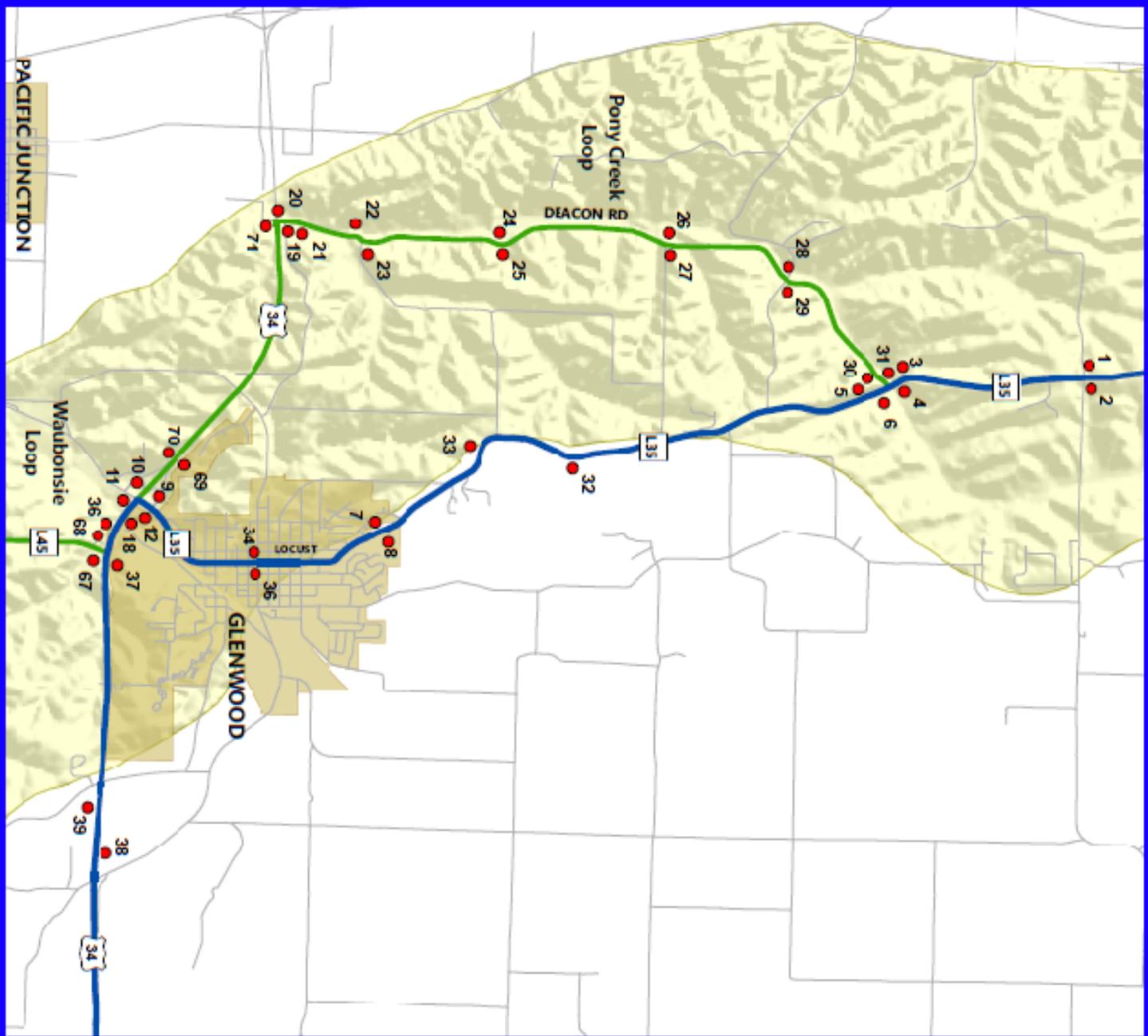
Prepared by: Pottawatomie County GIS Department

Sign #	Type	Exists	Recommendations
51	5	N	Need Sign: Loess Hills Scenic Byway Right Arrow
52	2	N	Need Sign: Loess Hills Scenic Byway
53	5	N	Need Sign: Loess Hills Scenic Byway Left Arrow
54	2	N	Need Sign: Loess Hills Scenic Byway
55	5	N	Need Sign: Loess Hills Scenic Byway Right Arrow
56	5	N	Need Sign: Loess Hills Scenic Byway Left Arrow
57	5	N	Need Sign: Loess Hills Scenic Byway Right Arrow
58	2	N	Need Sign: Loess Hills Scenic Byway
59	2	N	Need Sign: Loess Hills Scenic Byway
60	2	N	Need Sign: Loess Hills Scenic Byway
61	2	N	Need Sign: Loess Hills Scenic Byway
62	2	N	Need Sign: Loess Hills Scenic Byway
63	5	N	Need Sign: Loess Hills Scenic Byway Right Arrow
64	2	N	Need Sign: Loess Hills Scenic Byway
65	5	N	Need Sign: Loess Hills Scenic Byway Left Arrow
66	2	N	Need Sign: Loess Hills Scenic Byway
67	2	N	Need Sign: Loess Hills Scenic Byway
68	2	N	Need Sign: Loess Hills Scenic Byway
69	2	N	Need Sign: Loess Hills Scenic Byway
70	2	N	Need Sign: Loess Hills Scenic Byway
71	3	N	Need Sign: Loess Hills Scenic Byway Hitchcock Loop
72	5	N	Need Sign: Loess Hills Scenic Byway Left Arrow
73	0	N	Need Sign: Route ID
74	0	N	Need Sign: Route ID
75	1	N	Need Sign: Loess Hills Scenic Byway

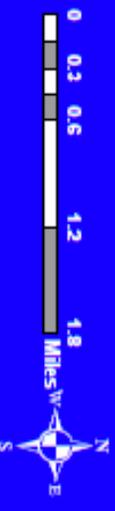


Loess Hills Scenic Byway Sign Plan (North) Mills County IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Postwatamne County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads

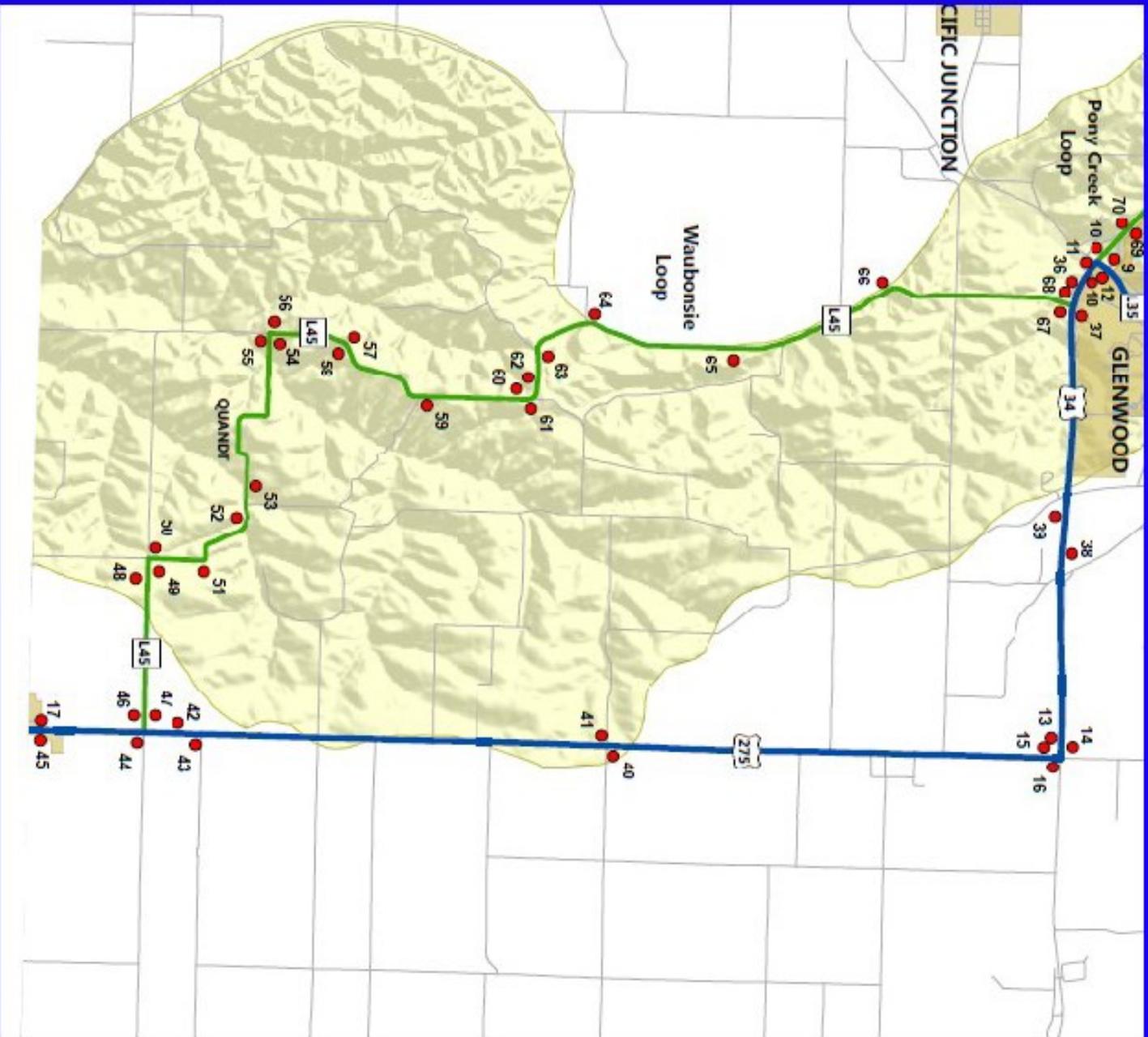




Loess Hills Scenic Byway Sign Plan (South) Mills County IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Portawandana County GIS Department





LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development

Prepared by: Pottawatomie County GIS Department

Sign #	Type	Exists	Recommendations
1	1	Y	None
2	1	Y	None
3	6	Y	Need Sign: Loess Hills Scenic Byway
4	1	Y	None
6	6	Y	Need Sign: Loess Hills Scenic Byway
5	1	Y	None
30	3	Y	Need Sign: END
31	3	Y	Need Sign: Pony Creek Loop
29	5	Y	Need Sign: Loess Hills Scenic Byway and take down odd sign with small text: Pony Creek Loop
28	5	Y	Need Sign: Loess Hills Scenic Byway and take down odd sign with small text: Pony Creek Loop
26	3	Y	Need Sign: Loess Hills Scenic Byway
27	3	Y	Need Sign: Loess Hills Scenic Byway
24	3	Y	Need Sign: Loess Hills Scenic Byway
25	3	Y	Need Sign: Loess Hills Scenic Byway
22	3	Y	Need Sign: Loess Hills Scenic Byway
42	3	Y	Need Sign: Loess Hills Scenic Byway
21	3	Y	Need Sign: Loess Hills Scenic Byway and take down odd sign with small text
19	6	Y	Need Sign: Loess Hills Scenic Byway
20	6	Y	Need Sign: Loess Hills Scenic Byway: Pony Creek Loop
71	3	N	Need Sign: Loess Hills Scenic Byway: Pony Creek Loop
32	1	N	Need Sign: Loess Hills Scenic Byway
33	1	N	Need Sign: Loess Hills Scenic Byway
7	1	Y	None
8	1	Y	None
34	1	N	Need Sign: Loess Hills Scenic Byway
36	6	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop: Right Arrow
69	3	N	Need Sign: Loess Hills Scenic Byway: Pony Creek Loop
70	3	N	Need Sign: Loess Hills Scenic Byway: Pony Creek Loop: END
9	6	Y	Need sign: Loess hills scenic byway
10	4	Y	None
11	4	Y	None
12	4	Y	None
18	4	Y	None
36	6	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop: Right Arrow
68	3	N	Need Sign: Loess Hills Scenic Byway: Waubonsie Loop
67	3	N	Need Sign: Loess Hills Scenic Byway: Waubonsie Loop: END
37	6	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop: Left Arrow
38	1	N	Need Sign: Loess Hills Scenic Byway
39	1	N	Need Sign: Loess Hills Scenic Byway
13	4	Y	Need Sign: Take down black Arrow and put up white arrow/blue background (Right)
14	1	Y	None
15	1	Y	None
16	4	Y	None
40	1	N	Need Sign: Loess Hills Scenic Byway
41	1	N	Need Sign: Loess Hills Scenic Byway
43	1	N	Need Sign: Loess Hills Scenic Byway
42	6	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop: Right Arrow
47	3	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop
46	3	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop: END
44	6	N	Need Sign: Loess Hills Scenic Byway:Waubonsie Loop: Left Arrow



LOESS HILLS
NATIONAL
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations Mills County, IA

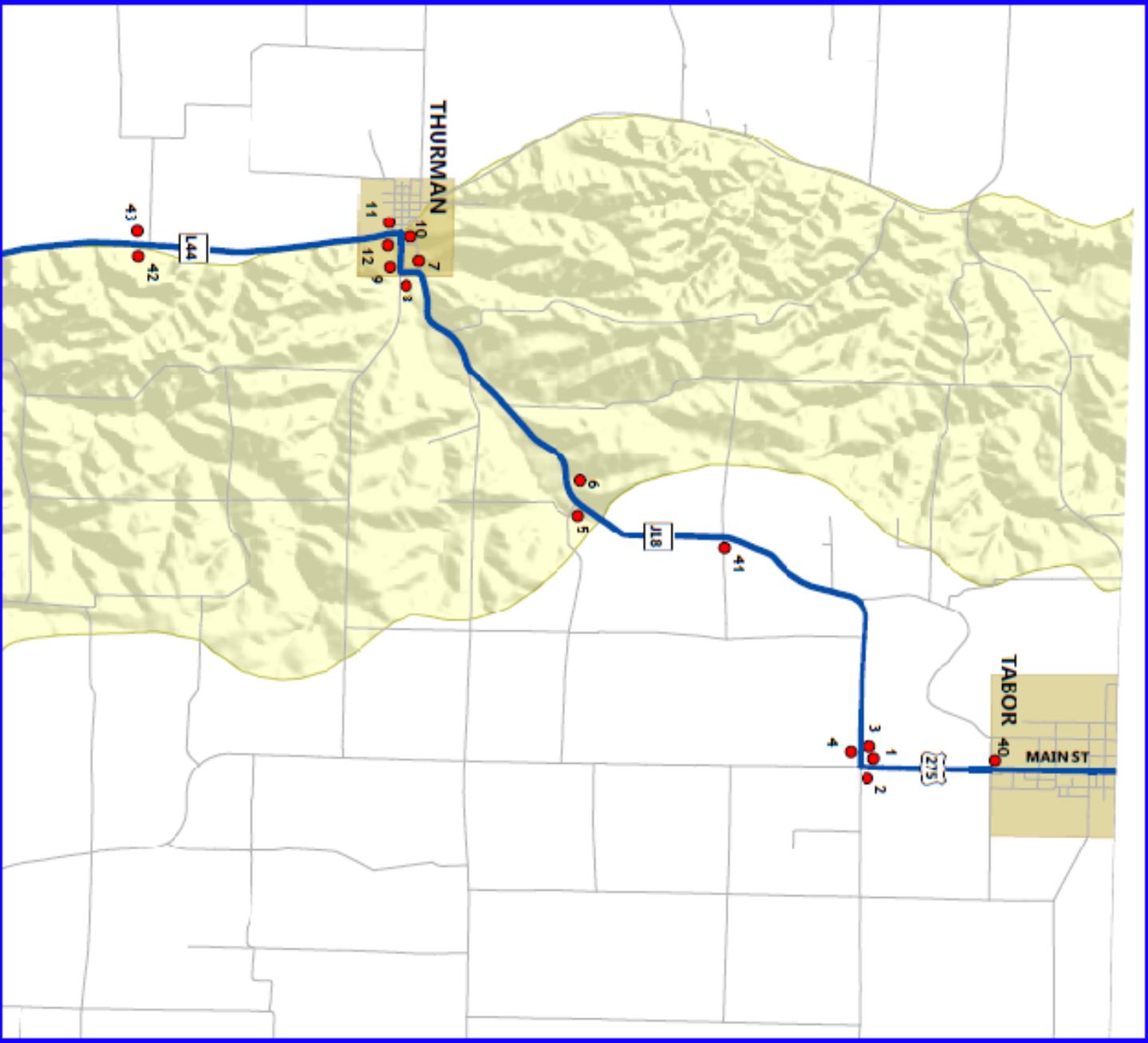
Loess Hills Scenic Byway Corridor Management Plan
Source: Cedar Hills Research Corporation & Development
Prepared by: Palisades/Leaves County GIS Department

Sign #	Type	Exists	Recommendations
45	1	N	Need Sign: Loess Hills Scenic Byway
17	1	Y	None
48	2	N	Need Sign: Loess Hills Scenic Byway
49	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
50	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
51	2	N	Need Sign: Loess Hills Scenic Byway
52	2	N	Need Sign: Loess Hills Scenic Byway
53	2	N	Need Sign: Loess Hills Scenic Byway
54	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
55	2	N	Need Sign: Loess Hills Scenic Byway
56	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
57	2	N	Need Sign: Loess Hills Scenic Byway
58	2	N	Need Sign: Loess Hills Scenic Byway
59	2	N	Need Sign: Loess Hills Scenic Byway
60	2	N	Need Sign: Loess Hills Scenic Byway
61	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
62	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
63	2	N	Need Sign: Loess Hills Scenic Byway
64	2	N	Need Sign: Loess Hills Scenic Byway
65	2	N	Need Sign: Loess Hills Scenic Byway
66	2	N	Need Sign: Loess Hills Scenic Byway

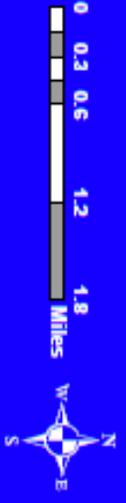


Loess Hills Scenic Byway Sign Plan (North) Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Postawandale County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads

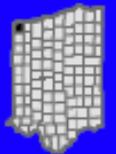
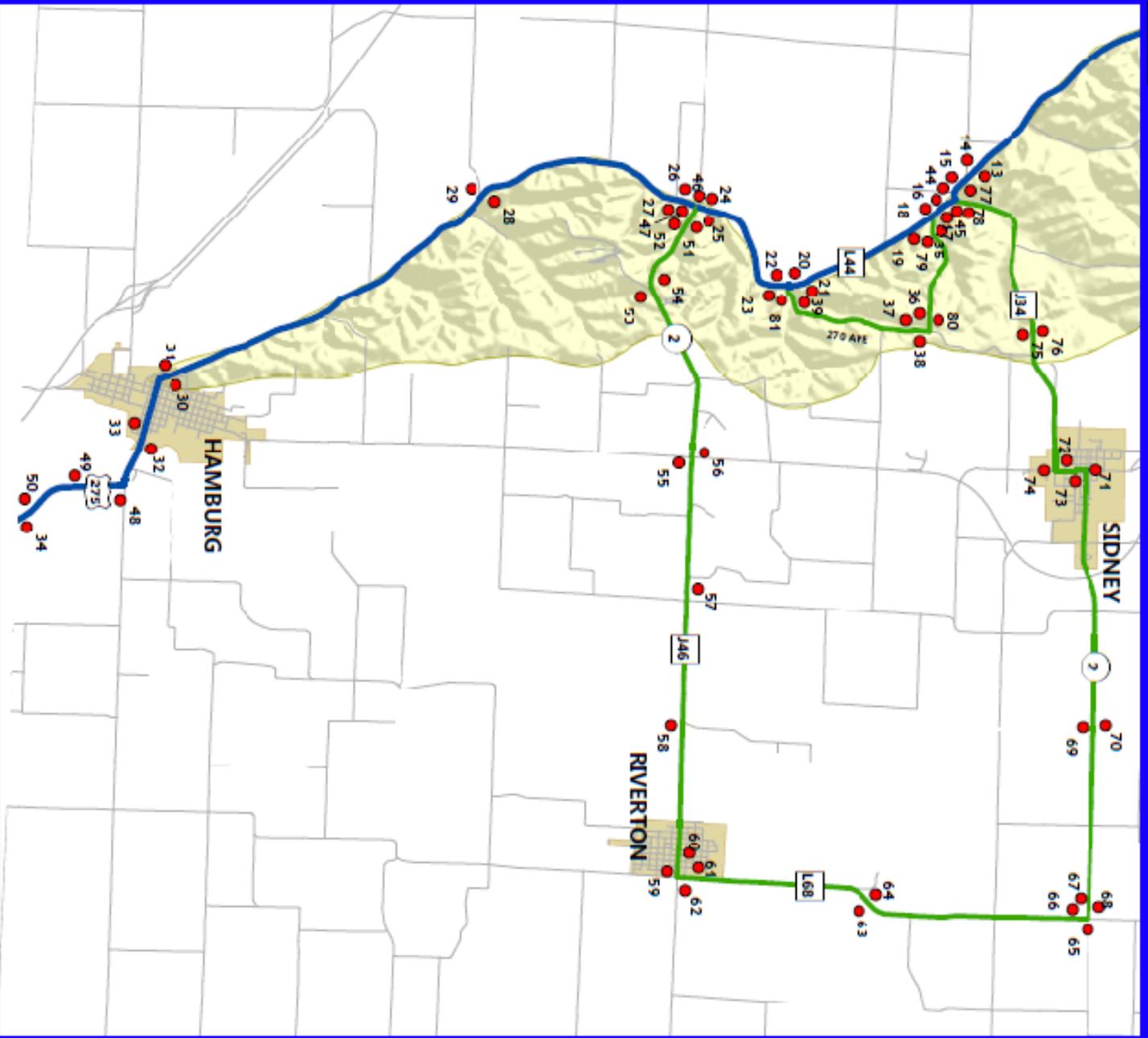




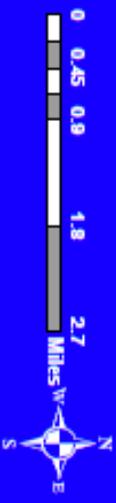
Loess Hills Scenic Byway Sign Plan (South) Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Postwardman County GIS Department



- Sign Location
- City or Town
- Loess Hills Landform
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Roads





Loess Hills Scenic Byway Sign Plan Recommendations

Freemont County, IA

Loess Hills Scenic Byway Corridor Management Plan
 Source: Loess Hills Resource Conservation & Development
 Prepared By: Pottawatomie County GIS Department

Sign #	Type	Exists	Recommendations
1	4	Y	None
2	1	Y	None
3	1	Y	Sign post broke: Needs Sign: Loess Hills Scenic Byway
4	4	Y	None
5	1	Y	None
6	1	Y	None
7	4	Y	None
8	1	Y	None
9	4	Y	None
10	4	Y	Sign needs to be rotated 90 degrees counterclockwise
11	1	Y	None
12	4	Y	None
13	4	Y	None
14	4	Y	None
15	4	Y	None
16	1	Y	None
17	4	Y	None
18	6	Y	None
19	6	Y	None
20	6	Y	None
21	1	Y	None
22	1	Y	None
23	6	Y	None
24	4	Y	None
25	1	Y	None
26	1	Y	None
27	4	Y	None
28	1	Y	None
29	1	Y	None
30	1	Y	None
31	4	Y	None
32	4	Y	None
33	4	Y	None
34	1	Y	None
35	3	Y	None
36	6	Y	Need Sign: Loess Hills Scenic Byway
37	3	Y	Need Sign: Loess Hills Scenic Byway
38	6	Y	Need Sign: Loess Hills Scenic Byway
39	3	Y	None
40	1	N	Need Sign: Loess Hills Scenic Byway
41	1	N	Need Sign: Loess Hills Scenic Byway
42	1	N	Need Sign: Loess Hills Scenic Byway
43	1	N	Need Sign: Loess Hills Scenic Byway
44	6	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop: left Arrow
45	6	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop: Right Arrow
46	6	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop: left Arrow
47	6	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop: Right Arrow
48	1	N	Need Sign: Loess Hills Scenic Byway
49	1	N	Need Sign: Loess Hills Scenic Byway
50	1	N	Need Sign: Loess Hills Scenic Byway: END



LOESS HILLS
SCENIC BYWAY

Loess Hills Scenic Byway Sign Plan Recommendations

Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Guide Hills Resource Conservation & Development
Prepared by: Preservation & Connectivity (P&C) Department

Sign #	Type	Exists	Recommendations
51	3	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop: BND
52	3	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop
53	2	N	Need Sign: Loess Hills Scenic Byway
54	2	N	Need Sign: Loess Hills Scenic Byway
55	2	N	Need Sign: Loess Hills Scenic Byway
56	2	N	Need Sign: Loess Hills Scenic Byway
57	2	N	Need Sign: Loess Hills Scenic Byway
58	2	N	Need Sign: Loess Hills Scenic Byway
59	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
60	2	N	Need Sign: Loess Hills Scenic Byway
61	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
62	2	N	Need Sign: Loess Hills Scenic Byway
63	2	N	Need Sign: Loess Hills Scenic Byway
64	2	N	Need Sign: Loess Hills Scenic Byway
65	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
66	2	N	Need Sign: Loess Hills Scenic Byway
67	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
68	2	N	Need Sign: Loess Hills Scenic Byway
69	2	N	Need Sign: Loess Hills Scenic Byway
70	2	N	Need Sign: Loess Hills Scenic Byway
71	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
72	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
73	5	N	Need Sign: Loess Hills Scenic Byway: Right Arrow
74	5	N	Need Sign: Loess Hills Scenic Byway: Left Arrow
75	2	N	Need Sign: Loess Hills Scenic Byway
76	2	N	Need Sign: Loess Hills Scenic Byway
77	3	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop: BND
78	3	N	Need Sign: Loess Hills Scenic Byway: Pleasant Overview Loop
79	3	N	Need Sign: Loess Hills Scenic Byway: Spring Valley Loop
80	2	N	Need Sign: Loess Hills Scenic Byway
81	3	N	Need Sign: Loess Hills Scenic Byway: Spring Valley Loop

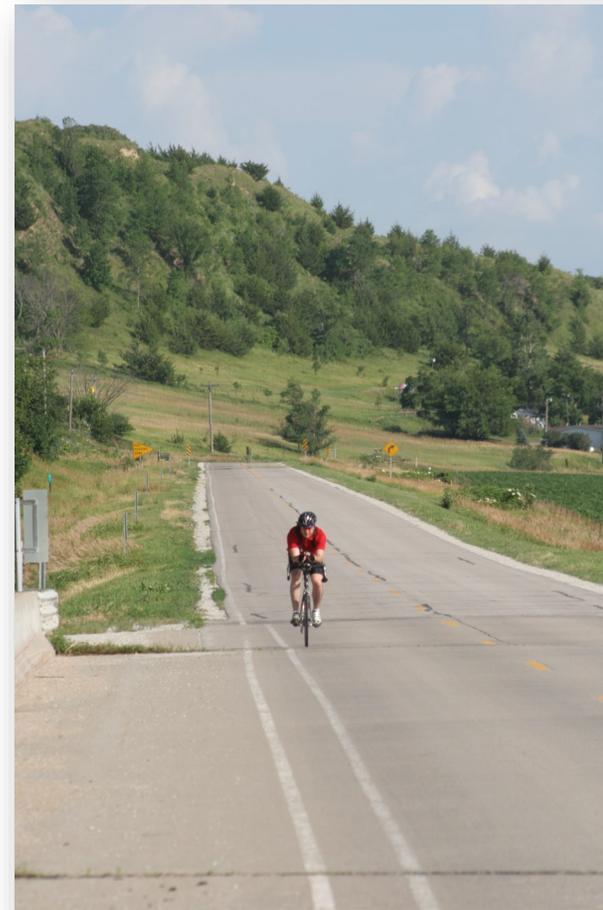
Bicycle Routes

Bicycling has experienced tremendous growth in popularity in the United States. A 2015 national survey found that more than 103 million Americans (34% of the population) rode a bicycle in the past year [Breakaway: http://b.3cdn.net/bikes/7b69b6010056525bce_ijm6vs5q1.pdf]. Bicycling appeals to a health and environment conscious population, is an easy recreational activity in which to participate and can provide quick access to exercise and relaxation. Most states have excellent and extensive networks of roads well suited for bicycling. Typically these are well maintained roads with little traffic, adequate pavement widths, attractive scenery, varying topography, points of interest and quiet surroundings [Federal Highway Administration I-1, 1990]. These same characteristics describe many of the most desirable features of scenic byway routes. Scenic byways and bicycle facilities, if well planned and managed, can be perfect recreational complements for the traveling public.

The potential for bicycling to develop as a popular outdoor recreational activity in the Loess Hills National Scenic Byway Corridor is enormous. Recreational preference studies have repeatedly identified a strong interest in bicycling among residents and visitors in the Loess Hills and a need for bicycle routes and associated facilities in the Scenic Byway Corridor. Bike clubs are active in many of the larger cities in the Corridor. Club members regularly participate in planned rides many of which travel through portions of the Loess Hills. There are a number of communities and events that organize and sponsor bike rides in the Corridor such as the Onabike Annual Bicycle Ride in Onawa. RAGBRAI, the largest annual bike event in the world, often begins and travels through Loess Hills communities. Bicycling, as with other popular outdoor activities such as hiking and picnicking, provides opportunities for a relatively large and diverse group of people to experience and gain an appreciation for the unique resources of the Loess Hills National Scenic Byway corridor.

Even though there has been an increase in the number of off-road trails and facilities for bicycles in the Scenic Byway Corridor, most bicycling in the Loess Hills still takes place on ordinary roads and highways with no special treatment for bicycles. The safe and enjoyable co-existence of bicycles and motor vehicle traffic in the Scenic Byway Corridor requires that special consideration be given to the planning, selection, and management of preferred bicycle routes. In preparing the Corridor Management Plan, efforts were directed at developing guidelines for, and proposing, a series of bicycle routes in the Loess Hills National Scenic Byway Corridor.

The Lewis and Clark Multi-Use Trail Study, developed in 2011, also recommends designated bicycle routes along the Missouri River and Loess Hills Corridor from Woodbury County to Fremont County. This plan would utilize on-road, shared-use routes, as well as new paved trails and existing trails, to follow Lewis and Clark's expedition route through Iowa and Nebraska. Several counties and communities have planned and proposed trails that align with the trail and bicycle route designations. Pottawattamie and Mills Counties each have countywide trails plans and are in the implementation process. Several cities also have municipal trail plans that are slowly but surely being constructed.



Bicycle Route Features

One result of these efforts, which included the survey of close to 200 members of bicycle clubs, was the identification of the following important features of bicycle routes in the Loess Hills:

- Routes should begin and end in small communities or established public areas such as a state or county park;
- In terms of length, routes should require between one and three hours to complete;
- Amenities that add most to an enjoyable bicycle ride are drinking water, restrooms and stores with refreshments;
- Features that are most desirable along a bicycle route are forests, streams and lakes, rural communities, wildlife, pastureland, prairies, farms, and country churches;
- Bicycle route signs should advise motorists of the presence of bicyclists and warn bicyclists of hazardous conditions, e.g., dangerous intersections; and
- A map of bicycle routes in the Scenic Byway Corridor is preferred to bicycle route identification signs as a means of directing bicyclists along selected routes.

Bicycle Route Types

Three alternative bicycle route types have been identified for the Loess Hills National Scenic Byway Corridor. These are shared roadway routes, rural bicycle lanes and bicycle paths. Planning and design guidelines for the three bicycle route types are based on the Iowa DOT's Bicycle Facilities Network Identification Handbook (1995) and the American Association of State Highway and Transportation Officials' Guide for the Development of Bicycle Facilities (1991). The three alternative route types are described below:

Shared Roadway - Defined as any roadway upon which a bicycle lane is not designated and which may be legally used by bicycles. These should be on existing roadways with traffic lanes of at least 12 feet in width but no greater than 14 feet wide and on roadways that meet the traffic volumes and speeds in the Iowa DOT's Bicycle Facilities Network Identification Handbook.

Rural Bicycle Lanes (Roadway Shoulders) - Defined as the portion of the roadway outside the edges of the traveled way and extending to the top of the front slopes. These lanes should have a minimum width of 4 feet or 5 feet minimum width with curbs. Roadways with shoulders less than 4 feet and a speed of 35 miles per hour or greater should not be designated as a rural bicycle lane. Lanes should be delineated from the road by a solid pavement

edge line that is a minimum of 6 inches wide. The use of different pavement textures and rumble strips should be avoided. Lanes should be identified on roadways that meet the traffic volumes and speeds in the Iowa DOT's Bicycle Facilities Network Identification Handbook.

Bicycle Path - Defined as a bicycle route physically separated from motor vehicle traffic by an open space or barrier. Bicycle paths are most frequently located within the highway right of way, public areas such as parks, and abandoned railroad right of way. Paths with two-way traffic should be a minimum of 8 feet wide with 10 feet wide preferred. For one-way traffic the path should have a minimum width of 5 feet. Shoulders should be a minimum of 2 feet wide with 3 feet wide being preferred. The separation between the road edge and the bike path should be as wide as possible with a minimum width of 8 feet. For separation widths of 5 feet or less a 4.5 feet tall divider should be considered.

Touring Jacob's Ladder Trail by Bicycle or Car prepared by the Pioneer Valley Planning Commission, 1994.

SAMPLE DISCLAIMER:

The information presented in this book is intended to assist in the selection of rides which exemplify the natural and scenic beauty of the Jacob's Ladder Trail area. In no way does the suggestion of these routes guarantee the safety of the rider. With the exception of one flat tour, these rides are designed to be used by those individuals who are experienced in bike safety and are recreational to experienced riders. As with any recreational or sporting activity, the individual assumes a certain level of risk in participating in that activity. The Pioneer Valley Planning Commission assumes no liability for any individual using these suggested tours.

Western Wisconsin Bicycle Map by the Wisconsin Division of Tourism, 1992

SAMPLE IMPORTANT NOTICE:

The bicycle is classified as a vehicle under Wisconsin state law (Wisconsin Statutes 346.02 (4) and has the same rights and responsibilities as motor vehicles, including the right to use public roads unless specifically prohibited. The safety of bicycling depends on the conscientious efforts of bicyclists and motorists to obey traffic laws and act with mutual consideration when sharing the roadway.

The Wisconsin's Bicycle Map is published as an aid to bicyclists by the Wisconsin Division of Tourism. The Division in no way warrants the safety of the roads recommended to bicyclists for shared bicycle/motor vehicle use. The recommended roads are suggested only as routes that are more suited than others based on available data and evaluation criteria.

All routes shown on these maps, other than Bicycle Touring and Off-Road Bicycle Trails are on regular roads of state, county, local and national forest road systems used by automobiles, trucks, buses, bicycles, motorcycles and farm machinery; they have no special provisions for bicyclists unless otherwise indicated. Bicyclists using these maps assume the responsibilities and risks for their own safety when cycling on the indicated recommended routes or other roads.

Bicycle Route Action #2

Monitor bicycling activities in the Scenic Byway Corridor to ensure that route conditions, support facilities, signs and information in maps are satisfactory.

Bicycle Route Action #3

Maintain communication with bicycle clubs to keep up-to-date on their needs as well as promote current events and activities.

Bicycle Route Action #4

Identify and develop new or modify existing routes including connections to existing or new trails.

Bicycle Route Action #5

Use regional events, such as Onabike and RAGBRAI to promote bicycling opportunities in the Loess Hills National Scenic Byway Corridor.

Maps

Proposed Bicycle Routes

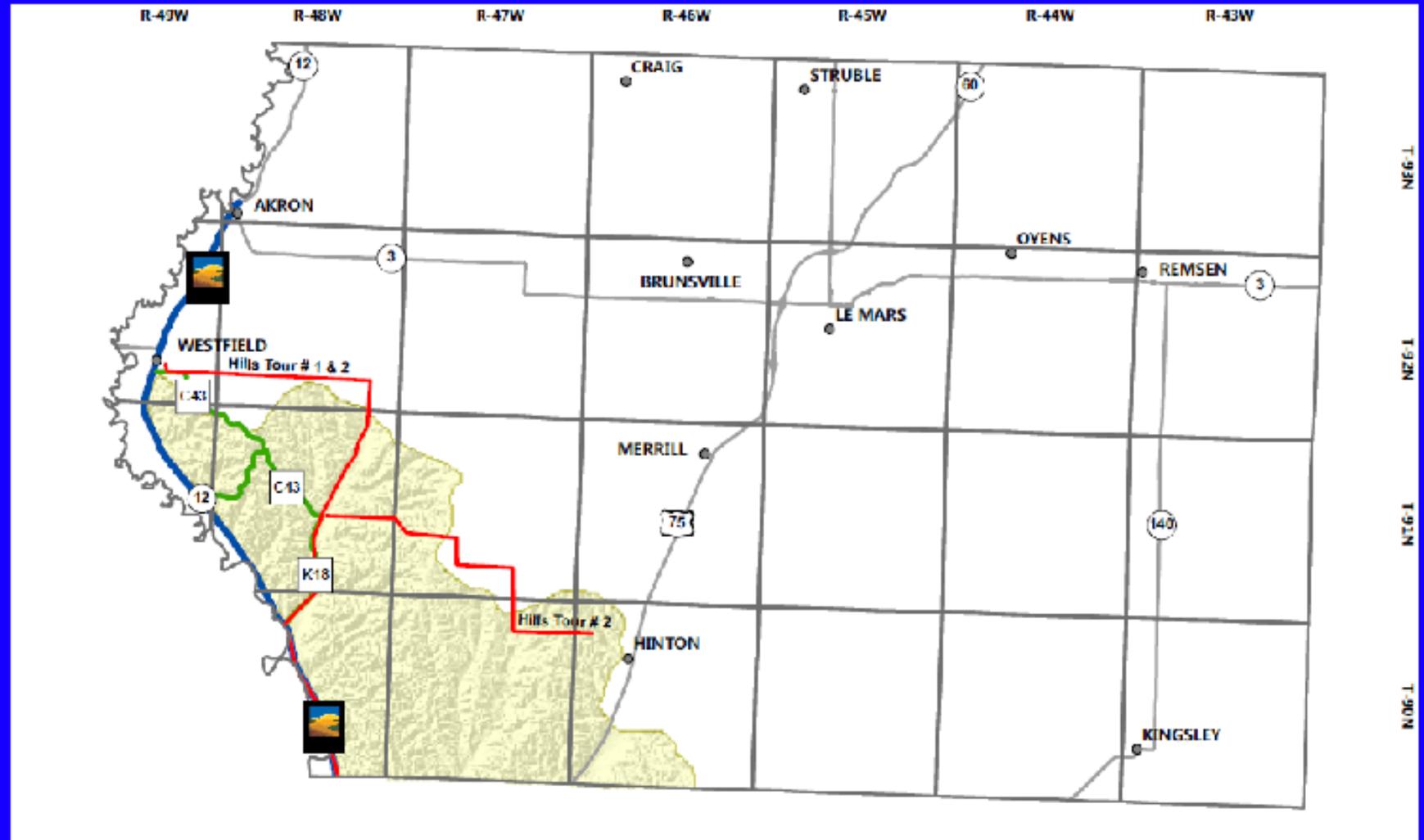




Proposed Bicycle Routes Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Hills Tour Bicycle Route
- Highways
- Township Line
- Loess Hills Landform Region

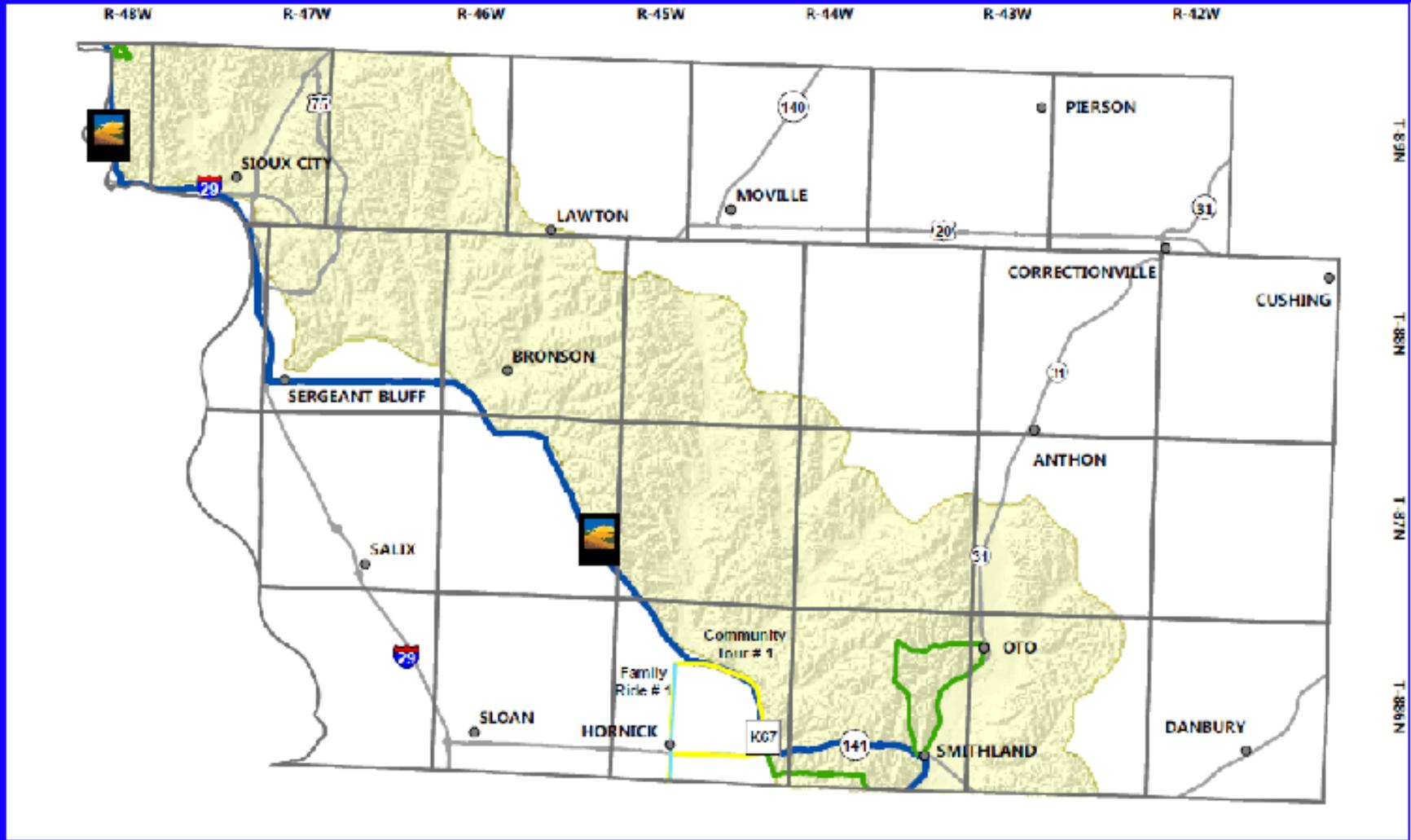




Proposed Bicycle Routes Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Family Ride Bicycle Route
- Community Tour #1
- Township Line
- Loess Hills Landform Region

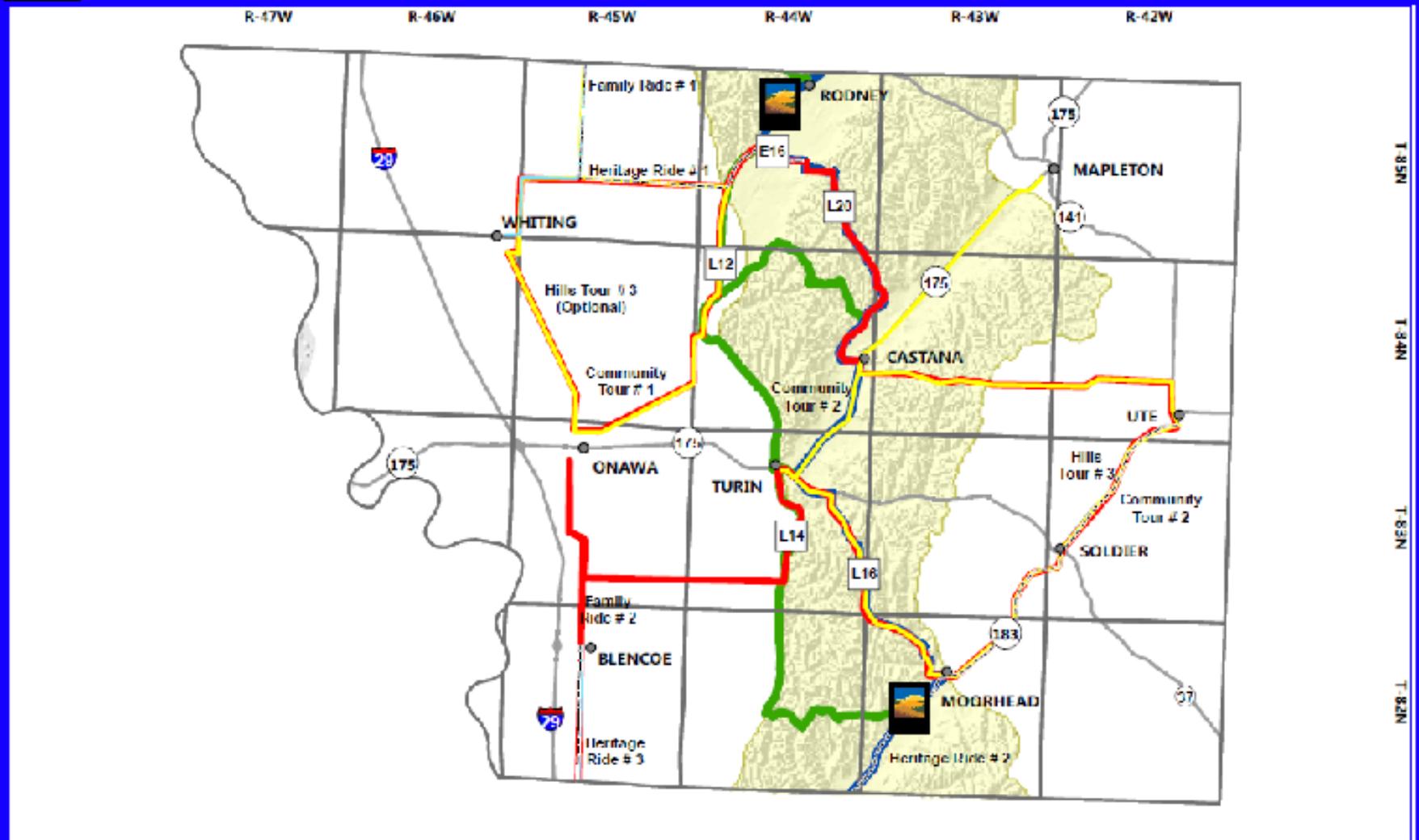




Proposed Bicycle Routes Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattawie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- Heritage Ride Bicycle Route
- Family Ride Bicycle Route
- Community Tour Bicycle Route
- Hills Tour Bicycle Route



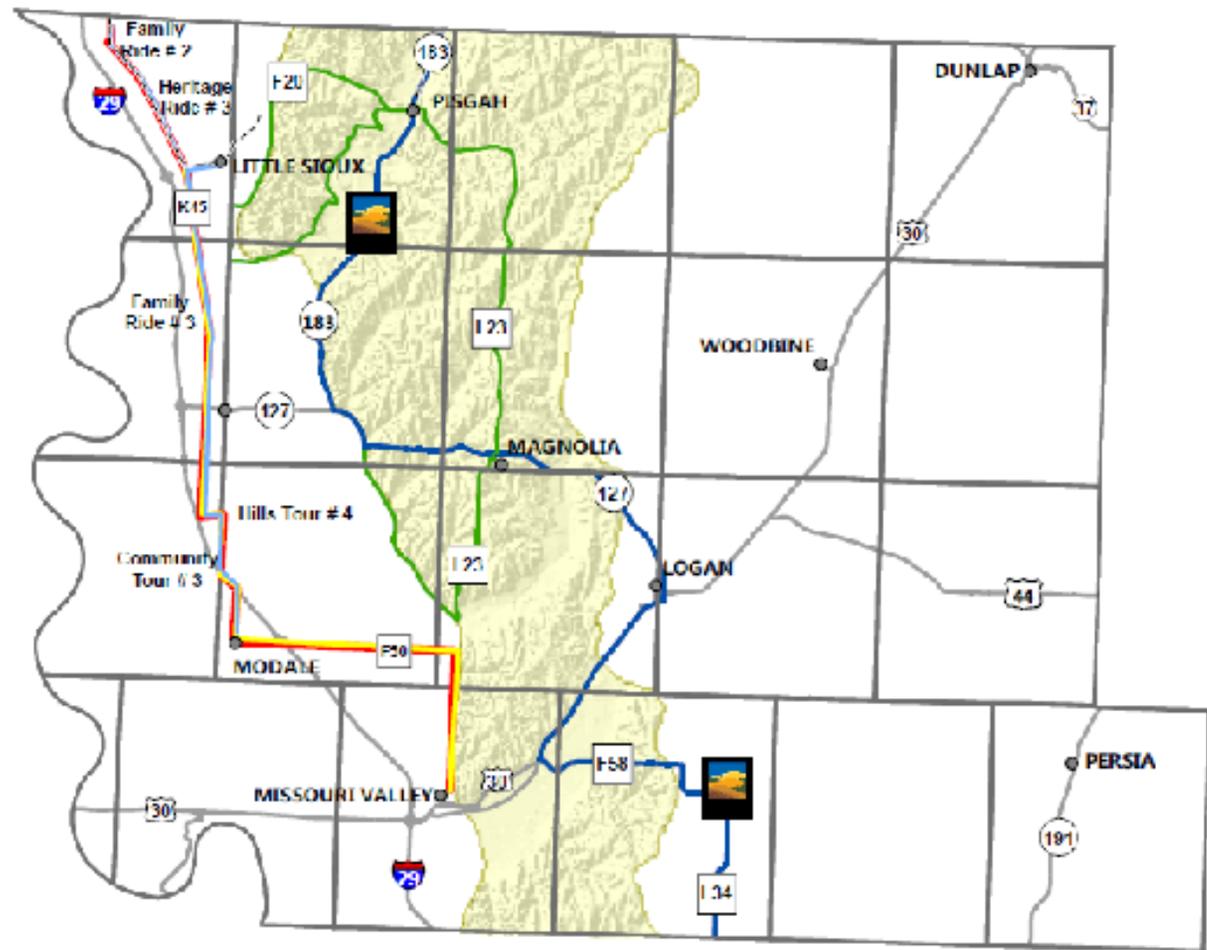


Proposed Bicycle Routes Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department

R-46W R-45W R-44W R-43W R-42W R-41W



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Township Line
-  Loess Hills Landform Region
-  Heritage Ride Bicycle Route
-  Family Ride Bicycle Route
-  Community Tour Bicycle Route
-  Hills Tour Bicycle Route



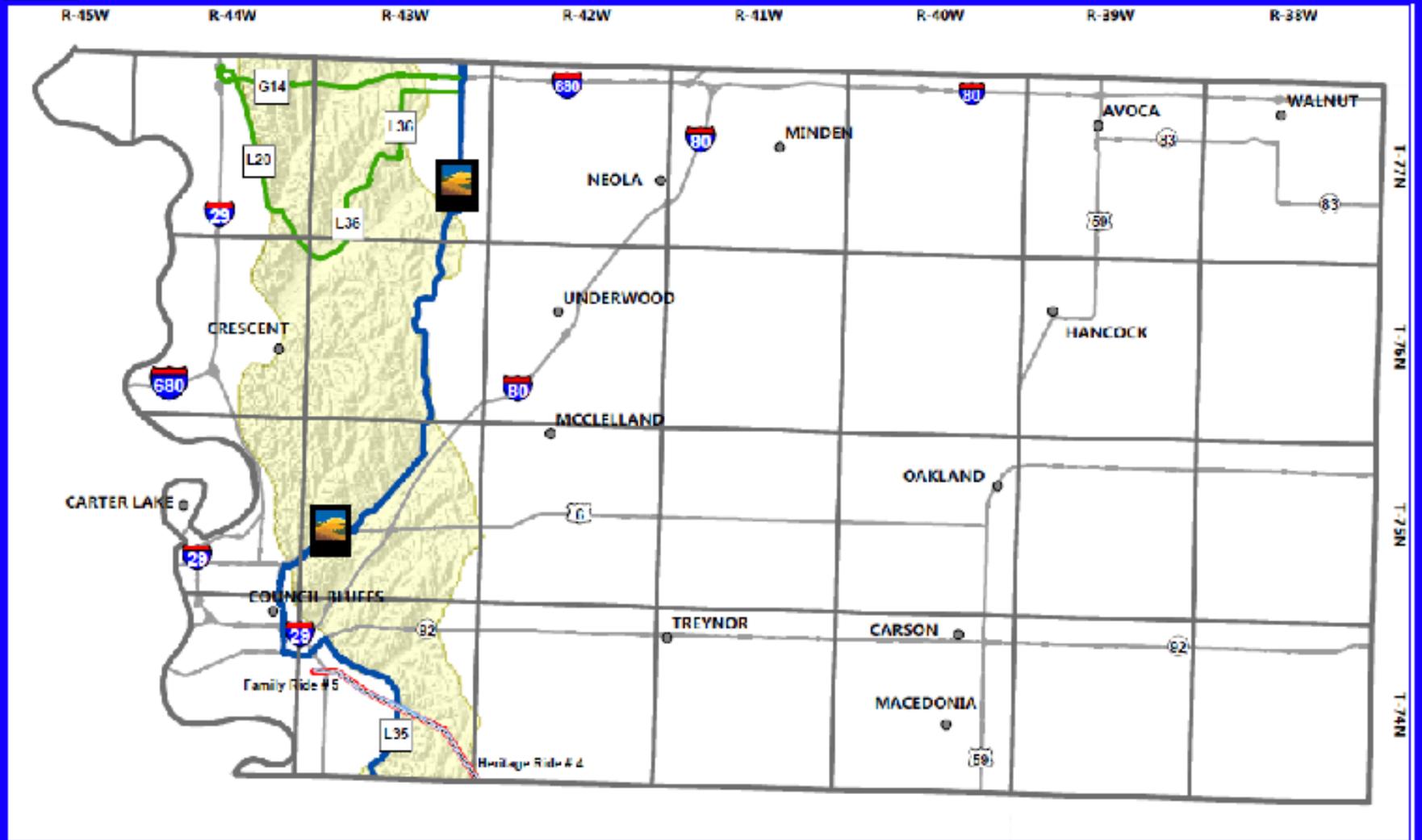


Proposed Bicycle Routes

Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- Heritage Ride Bicycle Route
- Family Ride Bicycle Route
- Hills Tour Bicycle Route
- Highways

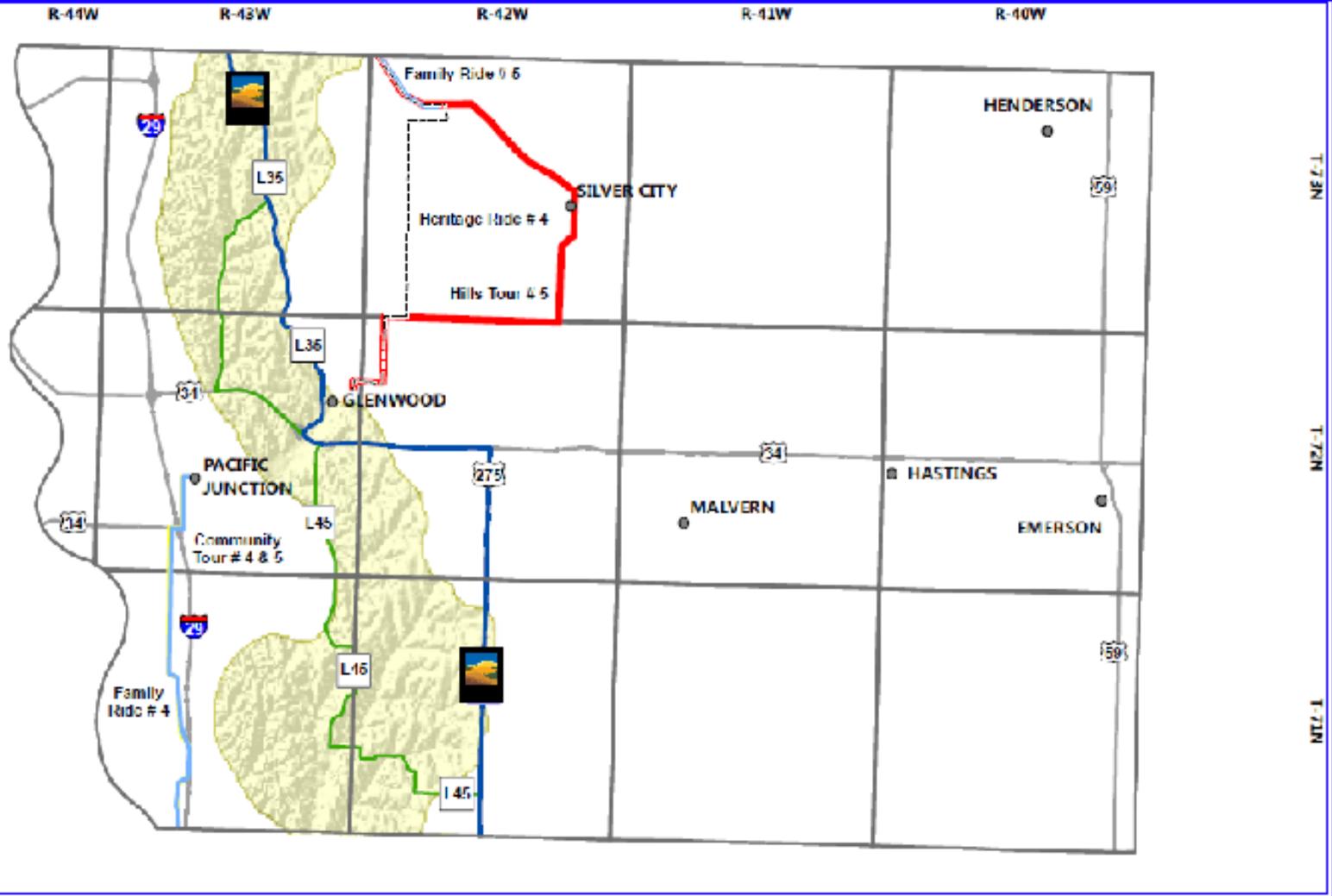




Proposed Bicycle Routes Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattawie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Heritage Ride Bicycle Route
- Family Ride Bicycle Route
- Community Tour Bicycle Route
- Hills Tour Bicycle Route
- Township Line
- Loess Hills Landform Region

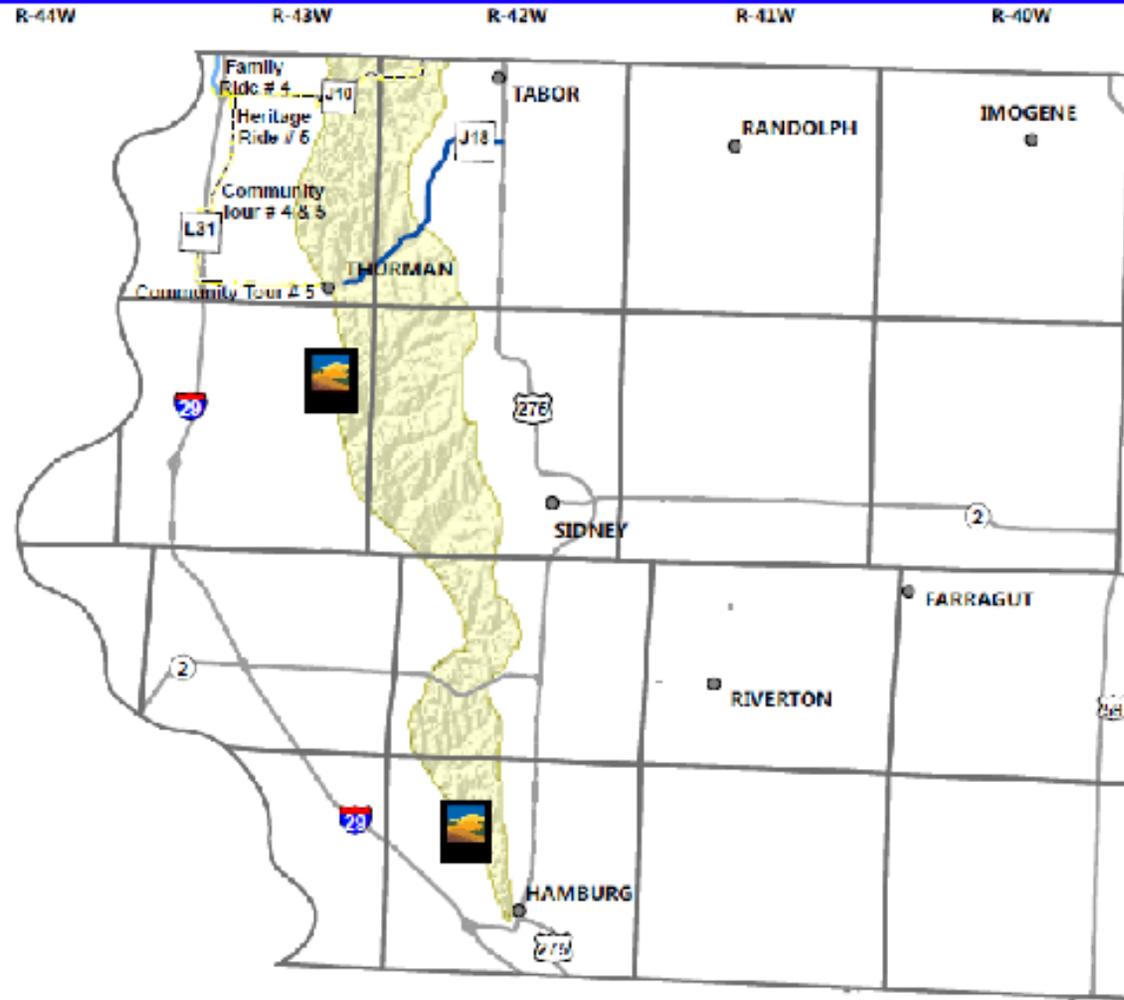




Proposed Bicycle Routes Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattomie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Heritage Ride Bicycle Route
- Family Ride Bicycle Route
- Community Tour Bicycle Routes
- Township Line
- Loess Hills Landform Region



Interpretive Programs and Activities

Interpretive programs and activities effectively share the stories of the Loess Hills in ways that will encourage interest, relate and reveal information, and present unified messages. Brochures, interpretive signs at attractions and self-guided auto tours are some of the ways travelers can learn about and enjoy the intrinsic qualities of the Loess Hills National Scenic Byway Corridor.

There are fundamentally two ways to present materials to the visitor: informational style or interpretive style. The difference between the two styles is not what is presented but how it is presented. Informational styles simply dispense the facts, the way a field guide lists and describes species. The interpretive style, on the other hand, communicates a story or larger message and provokes a desired response by the viewer.

Interpretation is a communication process designed to reveal meanings and relationships of our cultural and natural heritage to the public (visitors) through first-hand experiences with objects, artifacts, landscapes or sites (Veverka 1994, 19).

What is an Interpretive Program?

The main goal of an interpretive program is to translate information from the technical language of experts to the “everyday” language of the visitor.

Visitors to the Loess Hills should receive information in a way that they can understand and take away with them. An interpretive program for the Loess Hills National Scenic Byway Corridor should strive for the following principles of interpretation (Veverka 20, 1994):

- Provoke the attention or curiosity of the audience;
- Relate the message to the everyday life of the audience;
- Reveal the essence of the subject through a unique viewpoint;
- Address the whole--show the logical significance of an object to a higher level concept or story line; and
- Strive for message unity--use a sufficient but varied repetition of cues to create and accentuate a particular mood, theme, aura or atmosphere.

Interpretive programs should enhance the experience and understanding of the visitor. An interpretive program for the Scenic Byway Corridor should communicate the goals and objectives of the Scenic Byway, tell the Loess Hills story and reveal meanings of and relationships between the intrinsic qualities of the Corridor.



Dorothy Pecaut Nature Center, Woodbury County

Developing an Interpretive Program

Establishing a steering committee of Scenic Byway stakeholders should be the first step in developing an interpretive program. Committee members will be the primary participants in the interpretive planning process. The steering committee will determine responsibilities for the interpretive program, secure the necessary funding and establish the time frame for implementation.

The following model should guide the interpretive program for the Loess Hills National Scenic Byway Corridor (Veverka 32, 1994):

WHAT - Determine the resource, object, or concept that will be interpreted to visitors. Research information that will provoke the visitor.

WHY - Develop objectives for interpretive programs and projects. Determine the objectives for the interpretive message(s). These should include at least one of the following:

- Learning Objective;
- Behavioral Objective; and
- Emotional Objective.

WHO - Analyze the visitor. Who is the audience? Determine How/When/Where to use interpretive signs, activities, brochures and other types of media considering:

- Site location;
- How many signs to use;
- What size signs;
- Permanent or seasonal;
- Signs versus other interpretive activities or media;
- Brochure types;
- Location for distribution of brochures; and
- Interpretive programming sites.

SO WHAT - Evaluate effectiveness of the message.

Implementation and Operations - Who is responsible for going from plan to reality?

In addition to the above planning process, some complementary tasks may be:

- Research and review sign plans and related activities of other scenic byways and similar attractions;
- Integrate interpretive plan signage into Sign Plan for the entire Scenic Byway; and
- Research current sign design, construction, and maintenance practices as well as laws and regulations governing the design, construction, and placement of signs.

Drawings

Prototype Interpretive Signs - Drawing

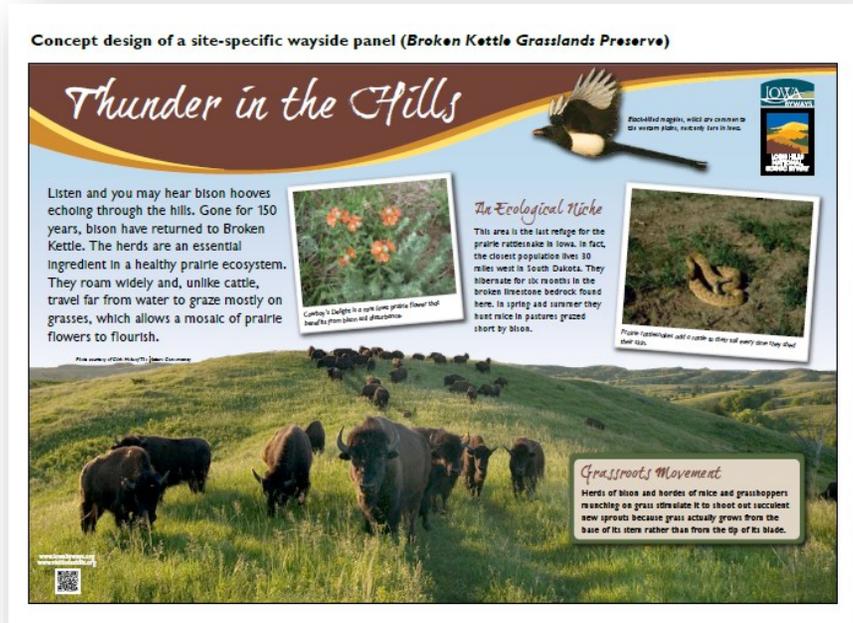
Interpretive Program Actions

Interpretive Program Action #1

Establish an Interpretive Program Steering Committee with representatives of Scenic Byway stakeholder organizations.

Interpretive Program Action #2

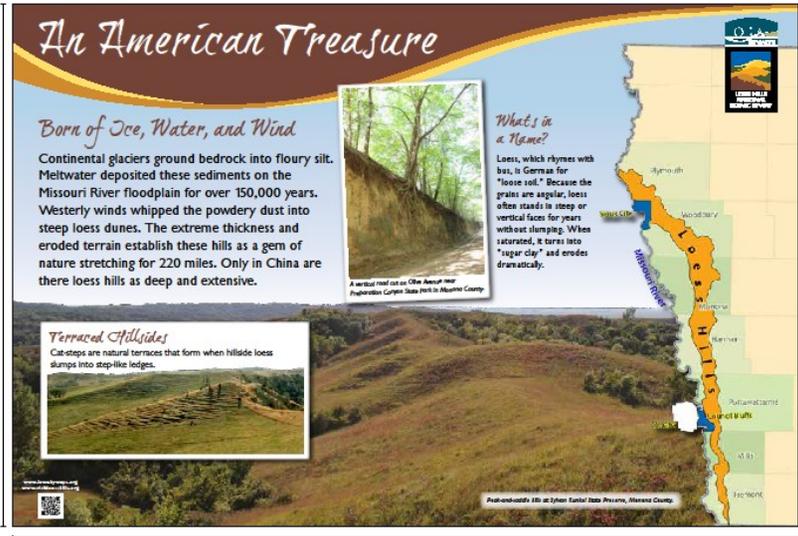
Prioritize and implement an interpretive plan and program for the Loess Hills National Scenic Byway Corridor based on the Interpretive Master Plan (2015).





Wayside Exhibit Panel and Support Concept Design

Concept design of "An American Treasure" replacement wayside panel



34"



Site Orientation Sign Concept Design (front view)

Land Use Strategies

Land-use decisions in the Scenic Byway Corridor should be sensitive to impacts on the intrinsic qualities or resources that make the Loess Hills of western Iowa unique in the world. The construction of houses and roads, expansion of urban areas, mining and agriculture have dramatically changed the natural features of the Loess Hills in many areas of the Scenic Byway Corridor. More than any other activity, land-use decisions will determine the future condition of resources in the Loess Hills National Scenic Byway Corridor. In order to preserve the intrinsic qualities of the Scenic Byway Corridor, public officials responsible for overseeing land use in the Loess Hills must exercise their authority. Local governments should take the lead in working with land owners, private entities and public agencies to protect the resources of the Loess Hills National Scenic Byway Corridor.

Assessment of Land Use Regulations

Of the seven counties in the Loess Hills National Scenic Byway Corridor, six have some type of land use regulations in place. Mills County is the only county that does not utilize zoning or other forms of land use regulation. The six counties that do have comprehensive plans and zoning ordinances have not updated these documents in recent years.

In the six counties with land use regulations, the most widely applied zoning district in the Loess Hills region is agricultural. This district allows a broad range of agricultural activities such as crop production, feedlots, and one and two family dwellings and non-agricultural activities such as schools, churches and cemeteries. Minimum lot sizes for this zoning district range from one-half acre to ten acres. Another common zoning district in the Loess Hills is conservation or open space. Permitted uses in this district include agricultural activities (excluding feedlots), production of woodland products, and private and public recreational areas.

None of the counties has any form of land use regulation in place that specifically address the issues affecting the resources of the Loess Hills region. Existing comprehensive plans and ordinances do not adequately address development pressures near urban areas, rural residential development, excavation and mining practices or protection of scenic resources in the Loess Hills. When the potential impact of these activities are not considered in making land use decisions in the Loess Hills there is a risk that resources in the Scenic Byway Corridor will be destroyed and lost forever.

Purpose and Value of Land Use Regulation

Land use regulations can guide the direction, speed and quality of land development. Zoning is the principal means in the United States to direct and manage land use. Zoning divides a county or community into districts (zones) that specify the different land use controls on each district. Zoning originated in part as a means of protecting the health and safety of inhabitants in major cities. Today, zoning is a tool to direct land use at the local level all across the country. Zoning requirements are laid out in two documents: the zoning map and the zoning ordinance (So 254-255, 1988).

According to the Standard State Zoning Enabling Act of the 1920s, zoning shall be in accordance with a comprehensive plan (So 78. 1988). Comprehensive plans are a reflection of a community's or county's values and vision for the future. The following components are usually part of a comprehensive plan:

- Demographics;
- Land use - current and future;
- Infrastructure; and
- Facilities.

Comprehensive plans can address housing, social services, economic development, open space and other issues related to local conditions or needs. Comprehensive planning establishes a record of existing conditions, projects future needs and presents local goals and objectives which provide a guide for making land use decisions.

Model Ordinances for the Loess Hills National Scenic Byway Corridor

Model ordinances have been developed which can be applied by counties and communities in the Loess Hills National Scenic Byway Corridor. These ordinances are presented in a separate section “Conservation Strategies for Intrinsic Qualities” at the end of this chapter. The model ordinances developed include:

- Overlay District Ordinance;
- Sign Ordinance;
- Ridge and Hillside Ordinance;
- Subdivision Ordinance;
- Planned Unit Development (PUD) Ordinance;
- Mining/Mineral Extraction Ordinance; and
- Telecommunications Towers and Antennas Ordinance.

In the case of the Loess Hills National Scenic Byway Corridor, the Corridor Management Plan can function as a comprehensive plan. The Corridor Management Plan defines specific boundaries of the Loess Hills landform region in the same manner as a comprehensive plan. The Loess Hills landform region is described in writing and illustrated on a series of maps at the end of this chapter.

For governments without comprehensive plans, adopting the Corridor Management Plan can be the only step necessary in implementing the model ordinances. For governments with existing comprehensive plans and ordinances, the Corridor Management Plan can be adopted as an amendment to the existing regulations and the model ordinances can then be established and implemented.

The Overlay District Ordinance provides counties and communities with the means to identify and protect specific resources not currently protected under existing regulations (Institute 70, 1993). The Overlay District lays “on top” of existing regulations and supersedes any present zoning regulations. Local governments can determine where the boundaries of any Overlay District in the Loess Hills.

Counties and communities should cooperate in establishing Overlay District boundaries. Common boundaries will make enforcement of, and compliance with, land use regulations easier for officials and property owners. Cooperation in determining regulations and the area they cover in the Loess

Hills will also aid in providing continuity of character in the Scenic Byway Corridor.

The model Sign Ordinance and Ridge and Hillside Ordinance address the need to protect the scenic resources of the Loess Hills National Scenic Byway Corridor. These ordinances provide guidelines for counties and communities to control signage and regulate the construction of structures on ridgetops and hillsides in the Corridor. The model Subdivision Ordinance and the Planned Unit Development Ordinance will help counties and communities regulate residential development to protect resources in the Loess Hills. The model Mineral Extraction/Mining Ordinance will allow mining in the Loess Hills, but provide restrictions regarding location of operations and guidelines for reclamation. The model Telecommunications Towers and Antennas Ordinance regulates the installation of towers and antennas needed for cellular phones and other uses.

In addition to land use regulations such as ordinances, counties and communities can make use of non-regulatory tools to encourage the protection of resources on private land in the Loess Hills National Scenic Byway Corridor. Among the tools available to local governments is their ability to provide property tax exemption to land owners for forest and fruit tree plantings and native prairie and wetland areas. Descriptions of these property tax exemptions are included following the model ordinances section at the end of this chapter.



Sylvan Runkle
State Preserve,
Monona County

Land Use Actions

Land Use Action #1

Counties and communities in the Loess Hills National Scenic Byway Corridor should adopt the Corridor Management Plan as a comprehensive plan, or amendment to an existing comprehensive plan, for the Loess Hills landform region.

Land Use Action #2

Counties and communities in the Loess Hills National Scenic Byway Corridor should evaluate the need for, make the necessary modifications to and adopt applicable model land use ordinances contained in the Corridor Management Plan.

Land Use Action #3

Local governments in the Loess Hills National Scenic Byway Corridor should cooperate in the development and enforcement of land use regulations. In Iowa, 28E Agreements provide a means for government entities to share resources and services. Counties and communities may be able to structure such an agreement to effectively implement the land use regulations needed to protect resources in the Scenic Byway Corridor.

Land Use Action #4

Local governments in the Loess Hills National Scenic Byway Corridor should encourage the protection of resources on private land in the Scenic Byway Corridor through the use of property tax exemptions.

Land Use Action #5

Scenic Byway stakeholder organizations should plan and conduct annual workshops for public officials, agency personnel and residents in the Corridor on the development and use of regulatory and voluntary land use tools that can protect resources in the Loess Hills.

Maps and Tables

Loess Hills Landform Definition - Map

Example Overlay District - Map

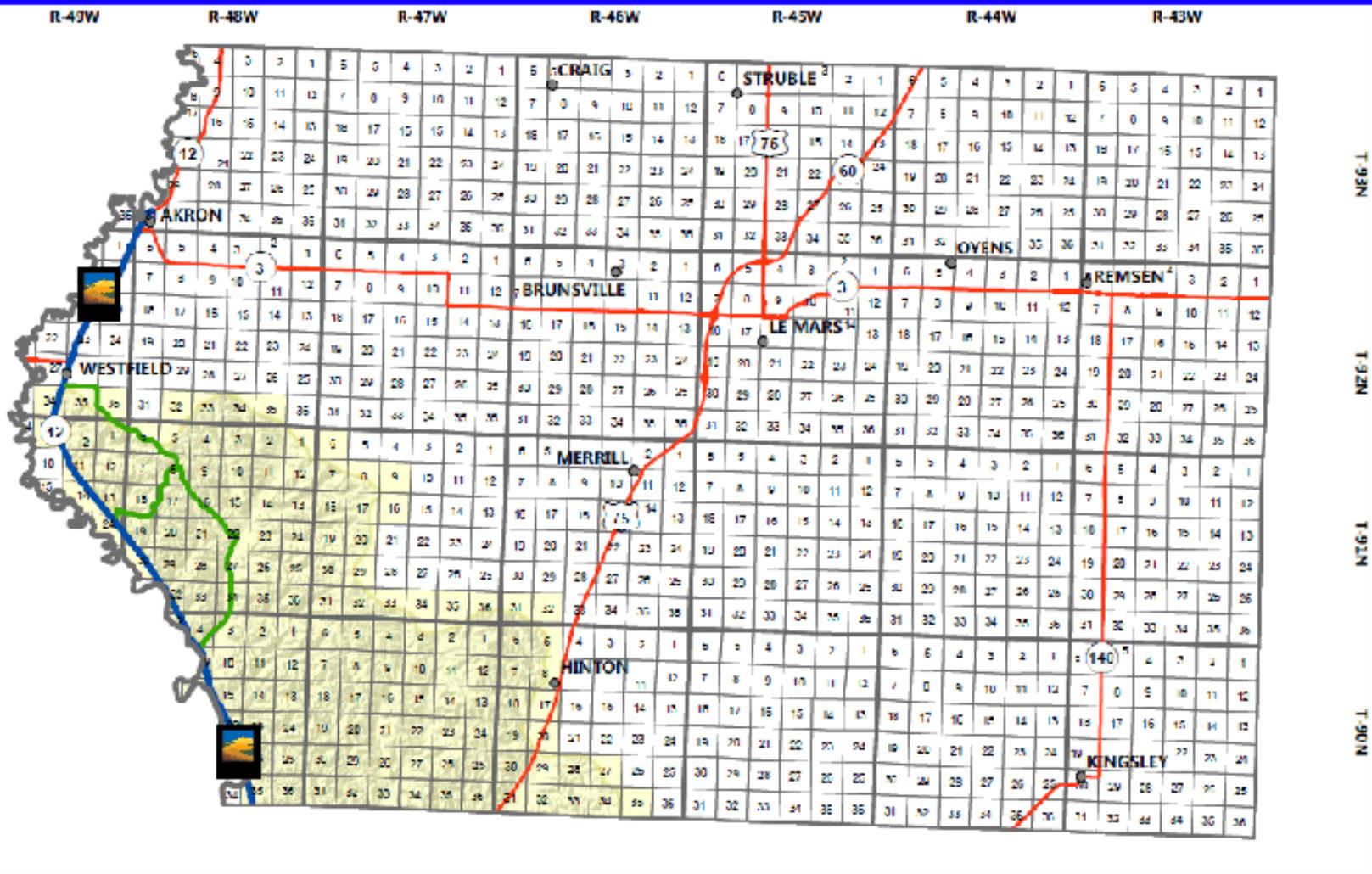
Land Use Land Cover - Map



Landform Definition Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Loess Hills Landform (boundary definition)
- Township Line
- Section Line

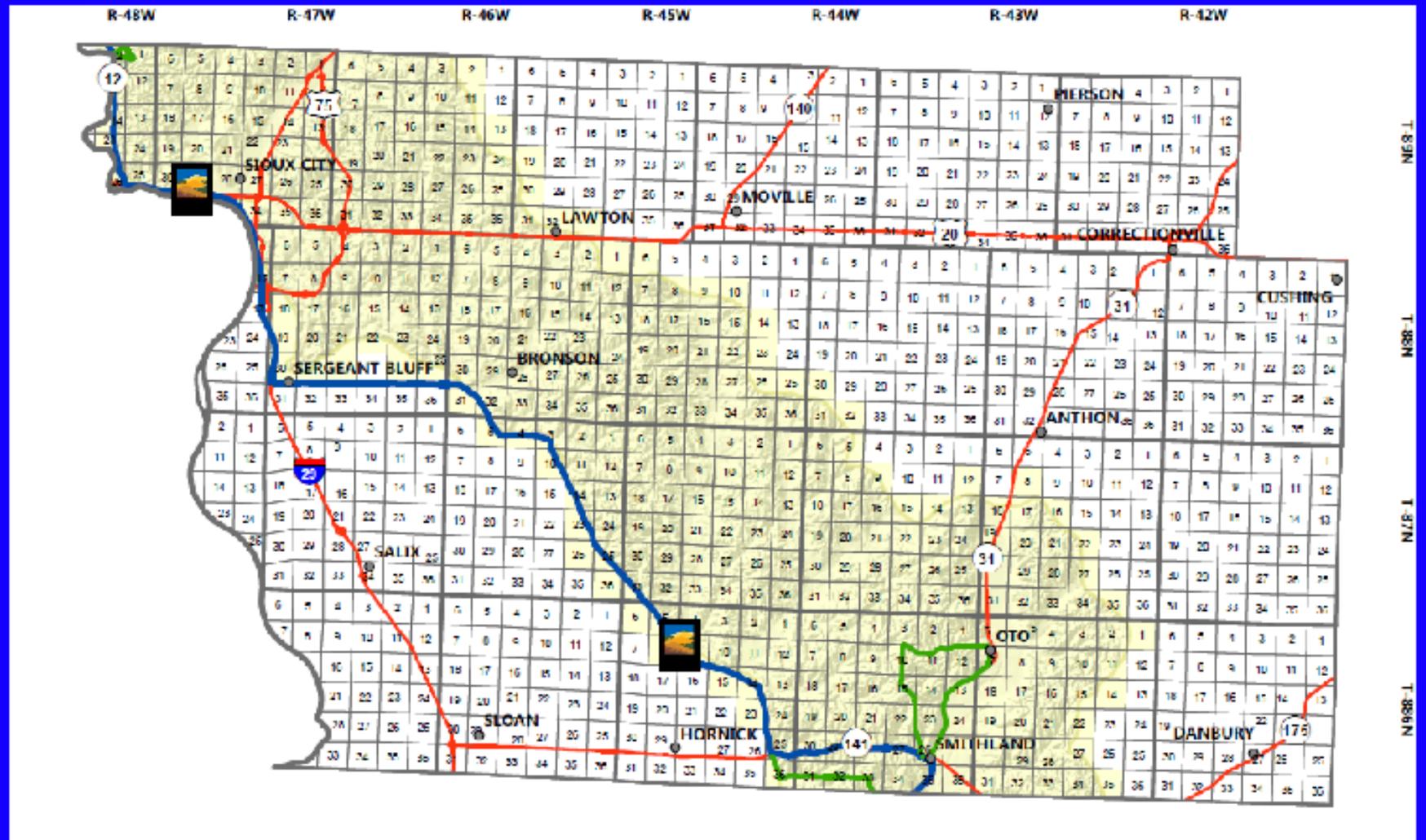




Landform Definition Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



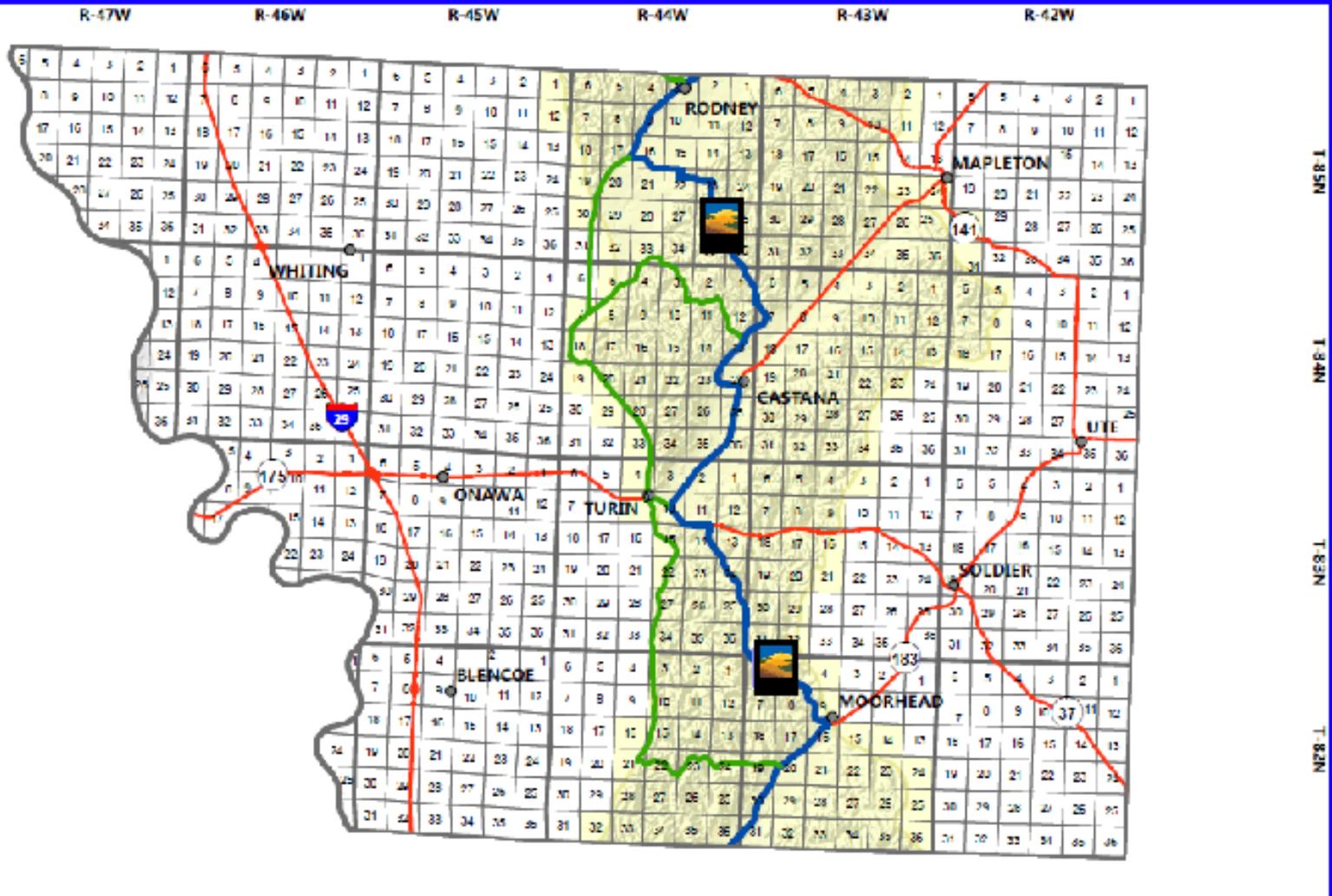
-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Loess Hills Landform Region
-  Loess Hills Landform (boundary definition)
-  Township Line
-  Section Line





Landform Definition Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan
Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Loess Hills Landform (boundary definition)
- Township Line
- Section Line

0 1.25 2.5 5 7.5 Miles

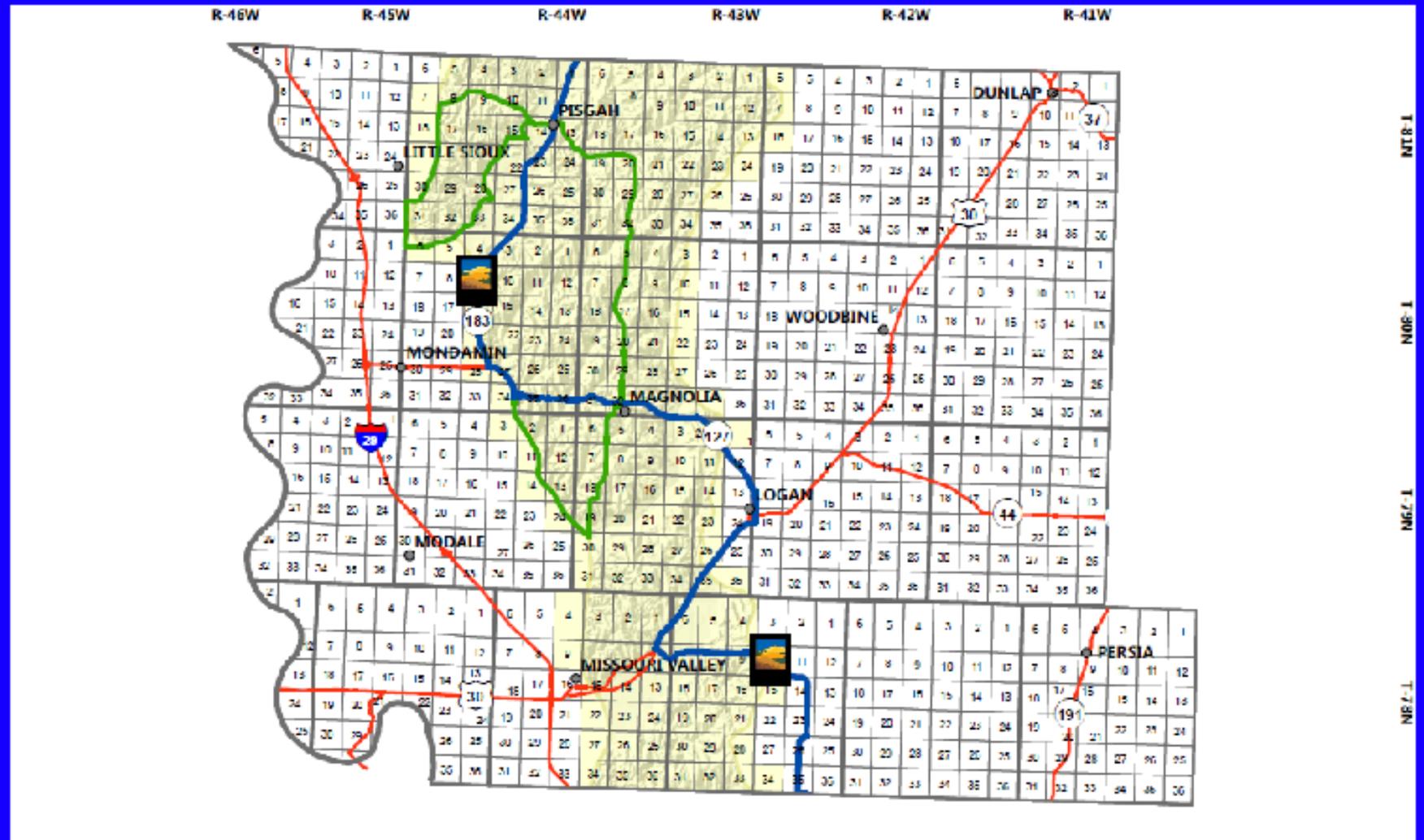




Landform Definition Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattawmie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Landform (boundary definition)
- Loess Hills Scenic Byway Loop
- Township Line
- Loess Hills Landform Region
- Section Line

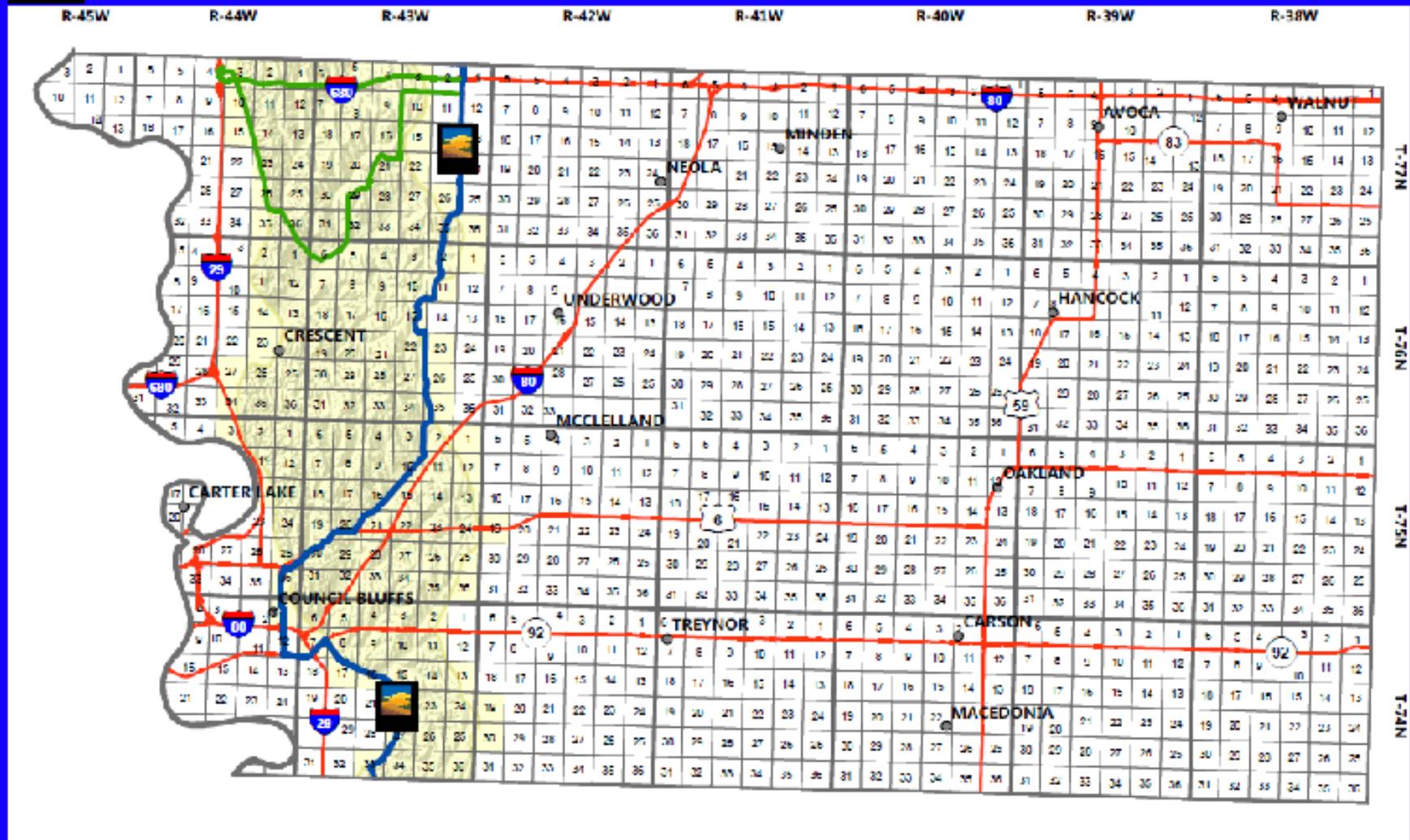




Landform Definition Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform Region
- Loess Hills Landform (boundary definition)
- Township Line
- Section Line

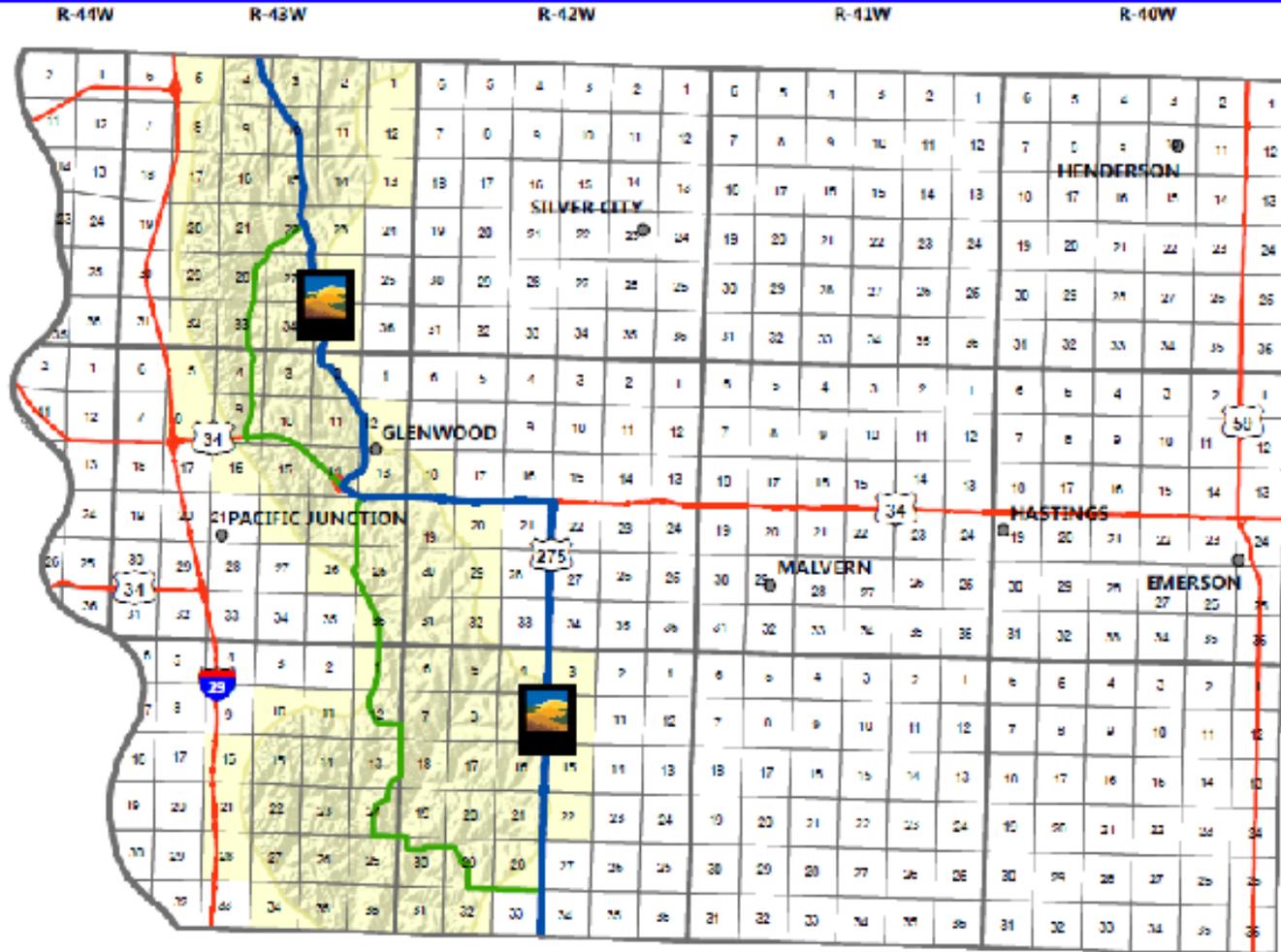




Landform Definition Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- Loess Hills Landform (boundary definition)
- Loess Hills Landform Region
- Township Line
- Section Line

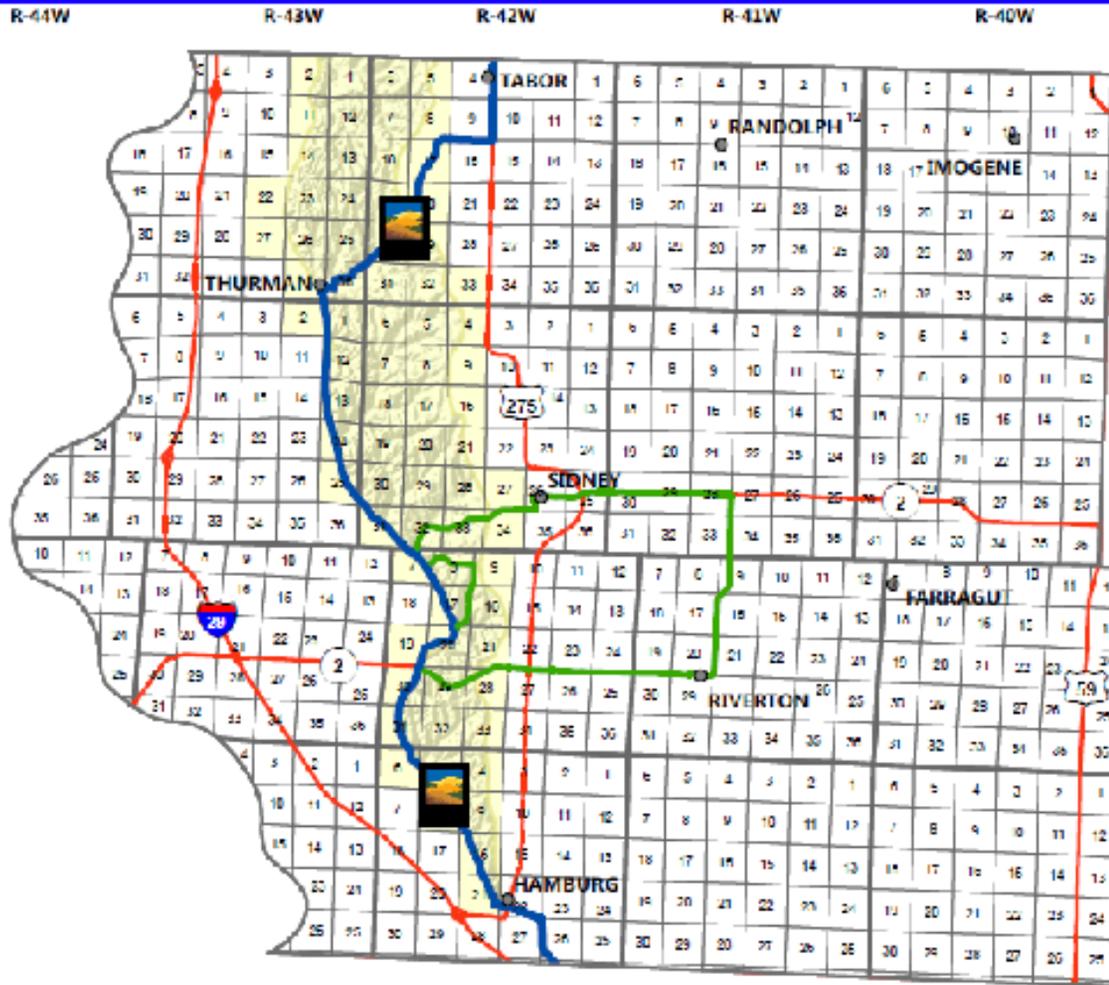




Landform Definition Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



-  Loess Hills Scenic Byway Spine
-  Loess Hills Scenic Byway Loop
-  Loess Hills Landform Region
-  Loess Hills Landform (boundary definition)
-  Township Line
-  Section Line

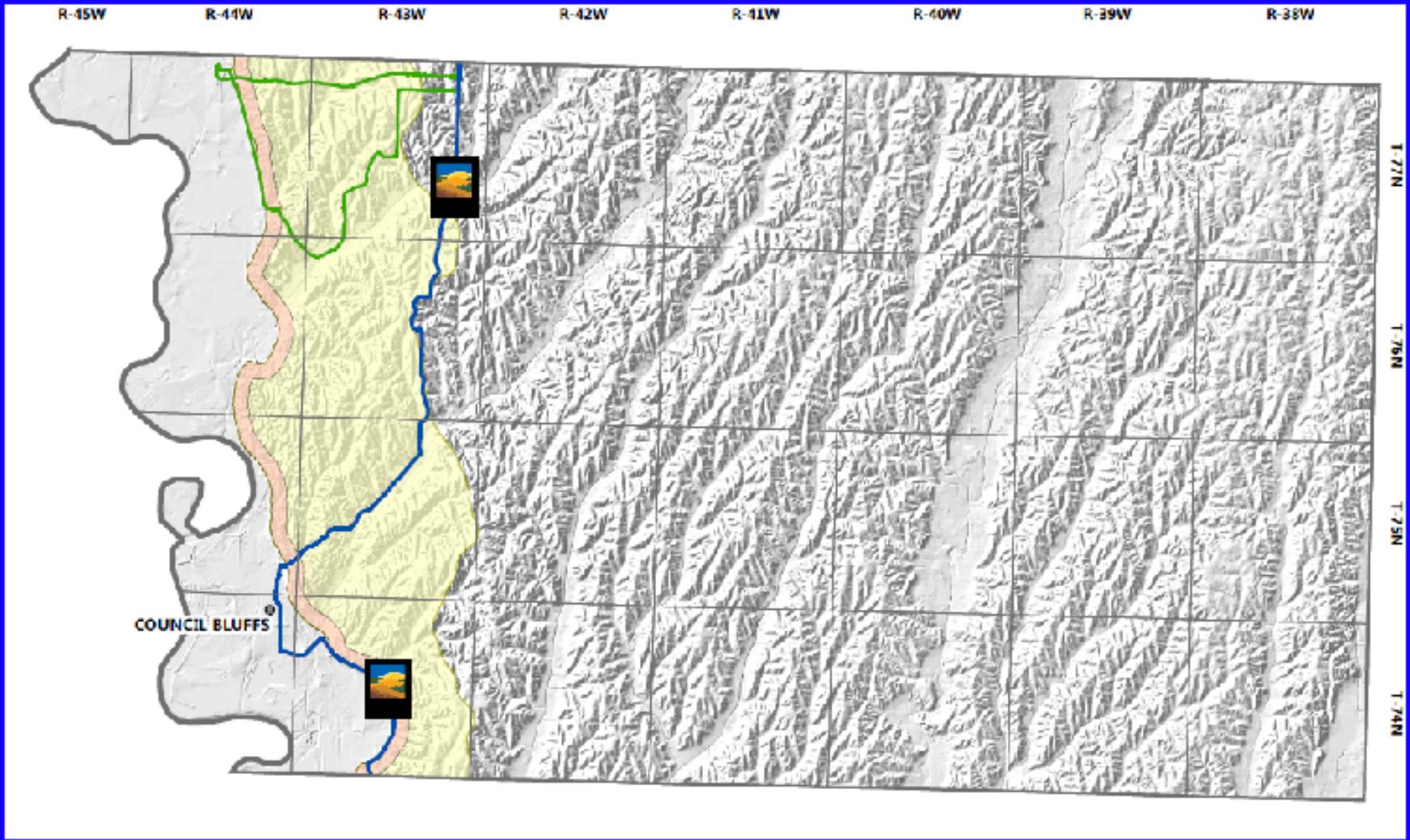




Example Overlay District
 West-facing Bluff, Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
 Prepared by: Pottawattamie County GIS Department



- Township Line
- Overlay District
- Loess Hills Landform Region
- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop

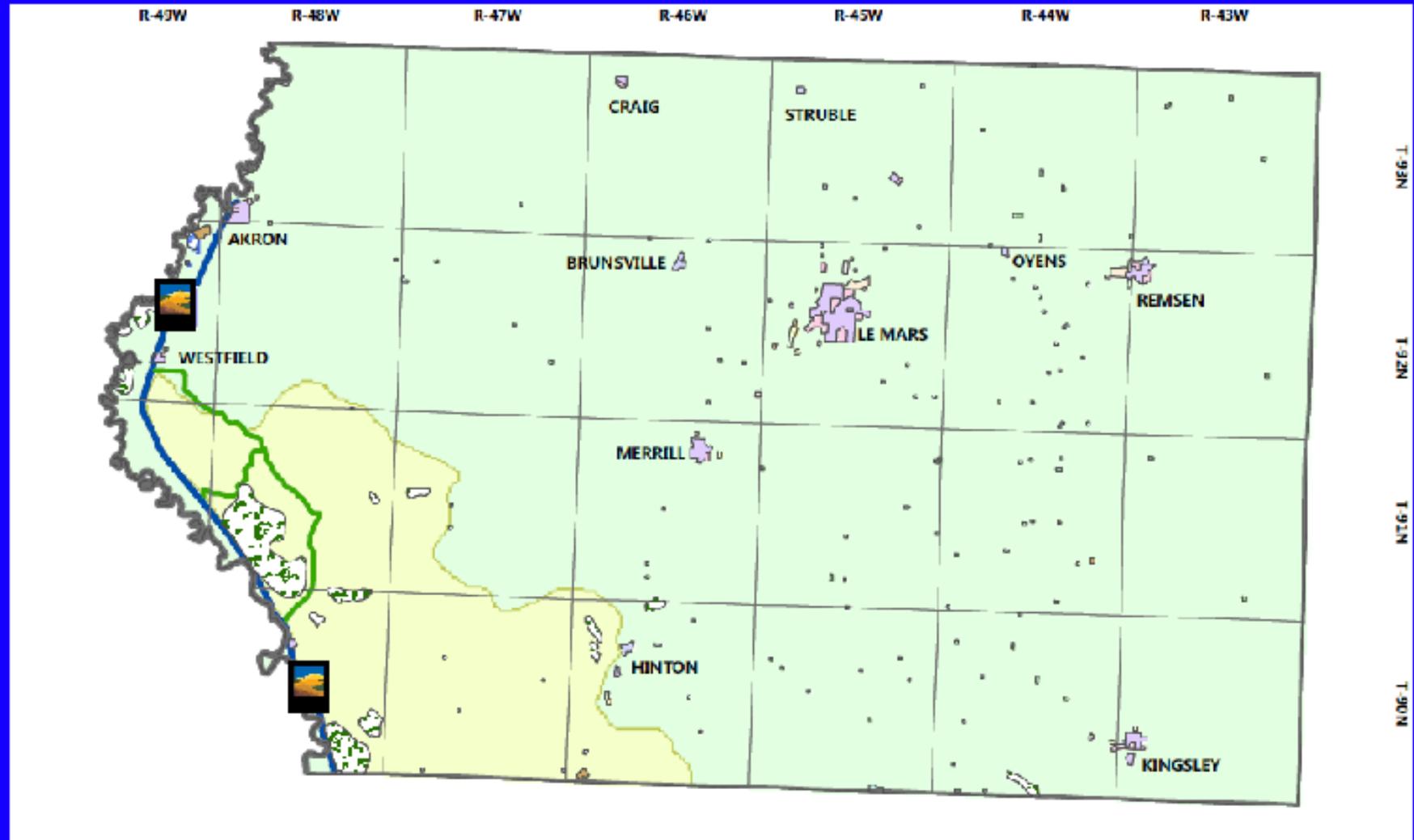




Land Use Land Cover Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Sources: Golden Hills Resource Conservation & Development
Prepared by: Pottawattomie County GIS Department



Loess Hills Scenic Byway spine	Loess Hills Scenic Byway loop	Reservoir
Commercial & Services	Industrial	Pastureland
Crop/Ranch Feedlot Operations	Mixed Urban or Built-Up Land	Strip Mines Quarries Gravel Pits
Cropland & Pasture	Other Agricultural Land	Transportation-Communication-Utilities
Pastureland	Other Urban or Built-Up Land	Unknown

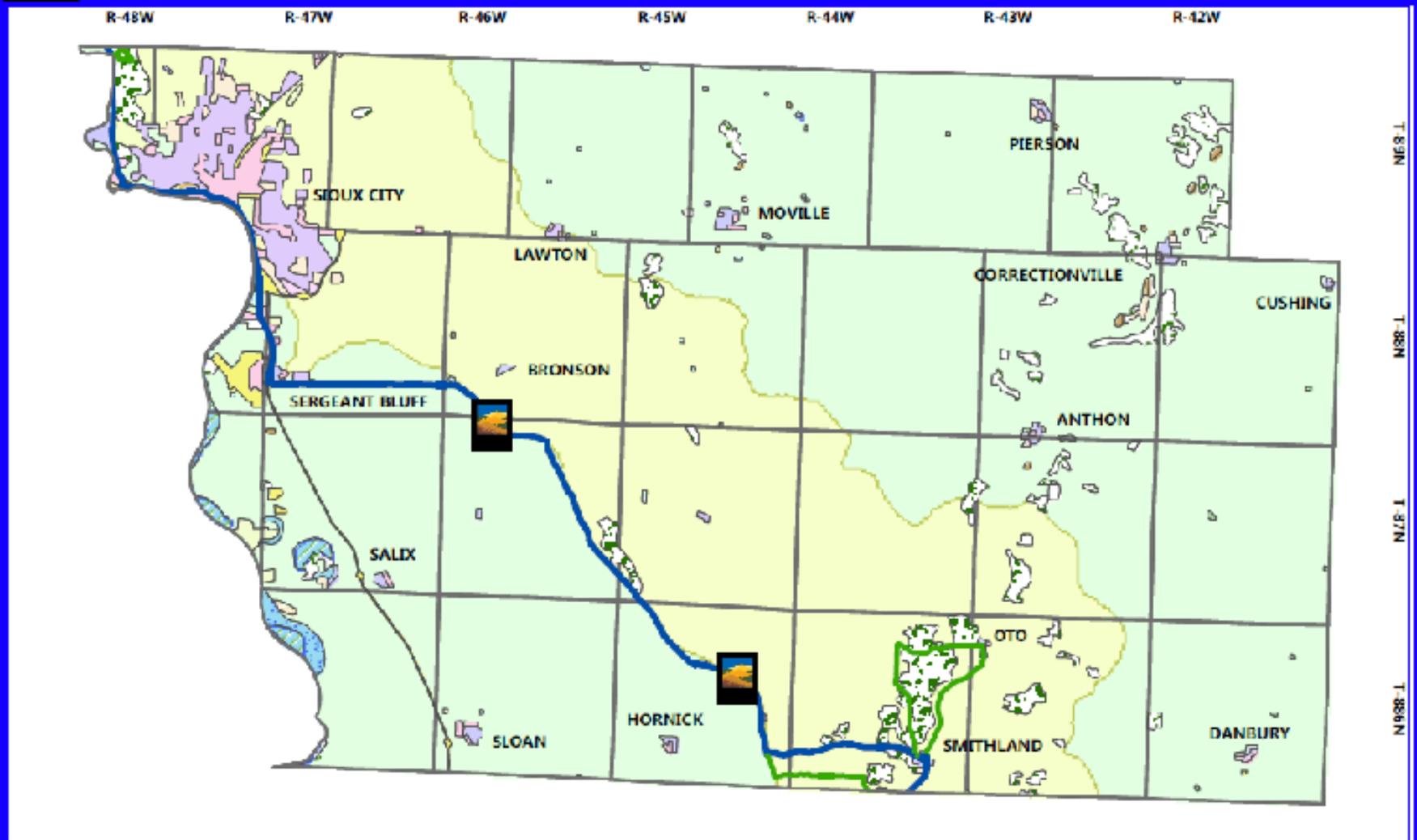




Land Use Land Cover Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- | | | | |
|---------------------------------|------------------------------|--------------------------------|--|
| Loess Hills Scenic Byway Epline | Forested Wetlands | Other Agricultural Land | Divis & Bush Rangeland |
| Loess Hills Scenic Byway Loop | Industrial | Other Agricultural Land | Steep Slope/Quarries/Drain Pits |
| Cemetery & Burial | Industrial & Commercial | Other Urban or Built-Up Land | Traditional Area |
| Contract Heating Appliances | Lakes | Reservoirs | Transportation-Communication-Utilities |
| Cropland & Pasture | Mixed Urban or Built-Up Land | Residential | Unknown |
| Deciduous Forest/Land | Nonforested Wetlands | Sandy Areas Other Than Beaches | |

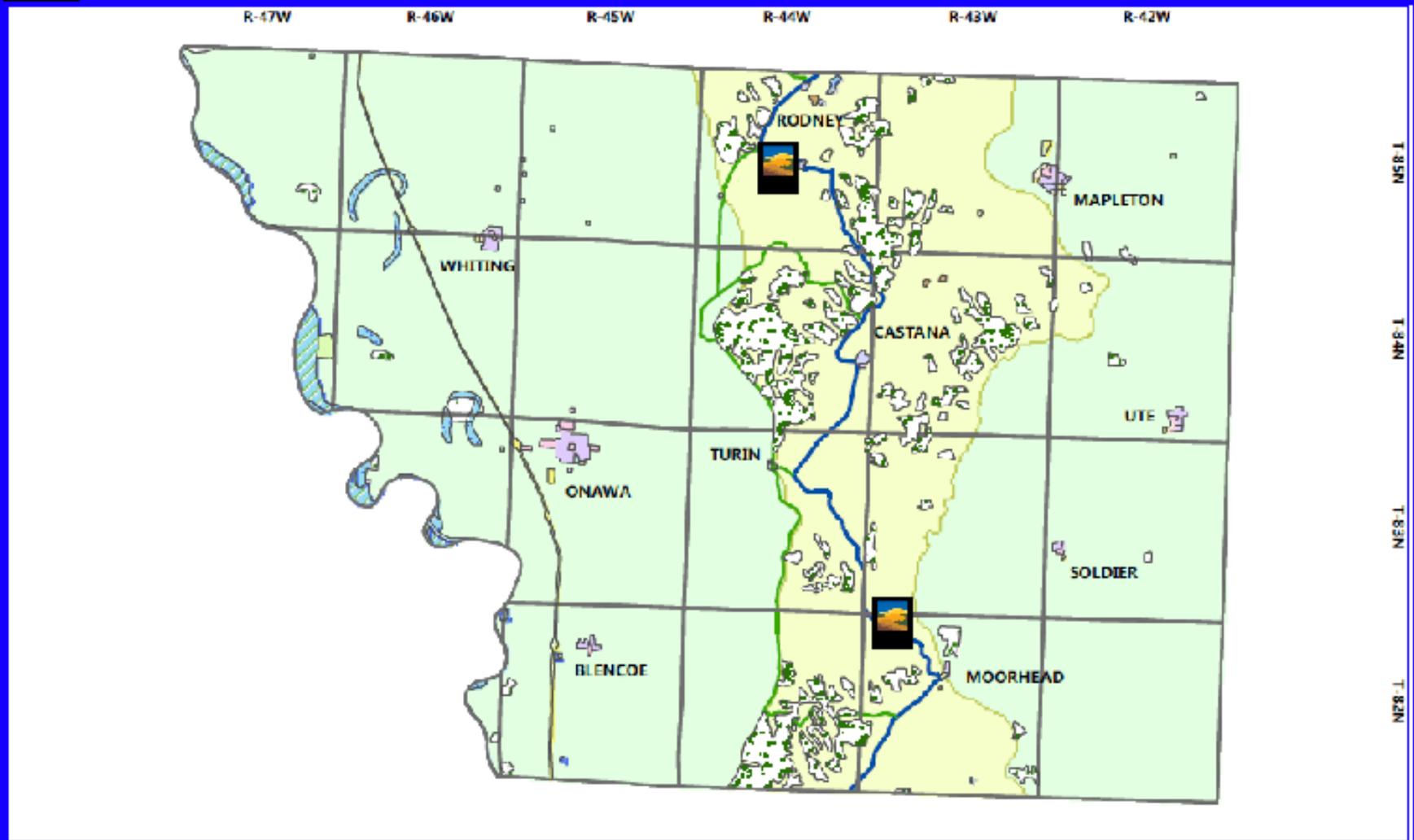




Land Use Land Cover Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Loess Hills Scenic Byway Loop	Deciduous Forest Land	Mixed Urban or Built-Up Land	Residential
Commercial & Services	Herbaceous Rangeland	Forested Wetlands	Nonforest Wetlands	Street & Roadway
Confined Feeding Operations	Industrial	Other Agricultural Land	Other Urban or Built-Up Land	Transportation/Communication/Utilities
Pasture or Pasture	Lakes	Barrenlands		

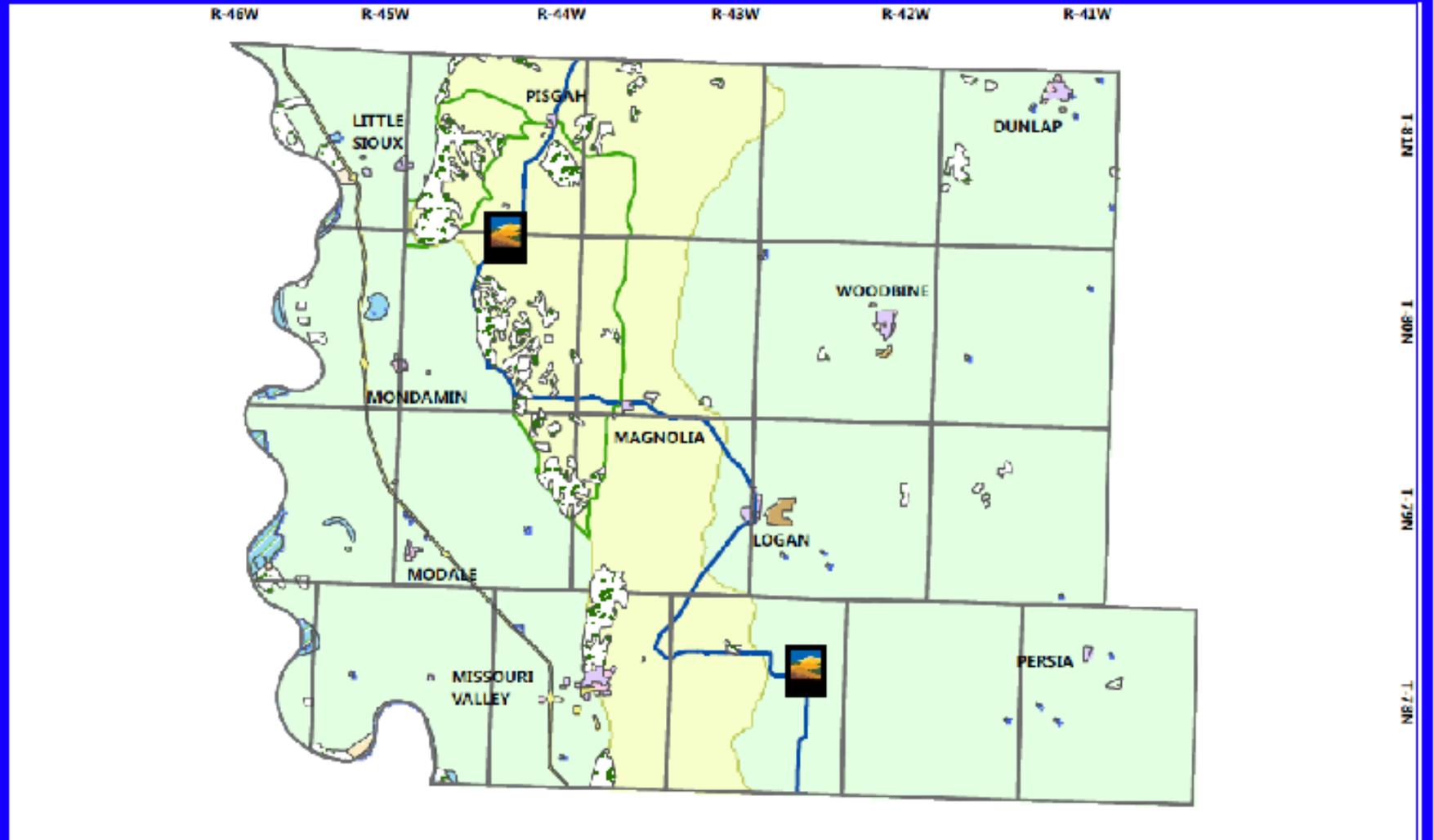




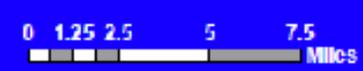
Land Use Land Cover Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



Loess Hills Scenic Byway	Forest Wetlands	Corn and Soybean Cropland	Wetlands (more than 1000 ft)
Loess Hills Scenic Byway Loop	Industrial	Other Agricultural Land	Streams & Canals
Commercial & Services	Lakes	Other Urban or Built-Up Land	Strip Mine-Coalbed-Quarry Pits
Cropland & Pasture	Woodlands or Wet-Up Land	Highways	Transportation Corridor (Interstate)
Wetlands (less than 1000 ft)	Nonforested Wetlands	Railroads	

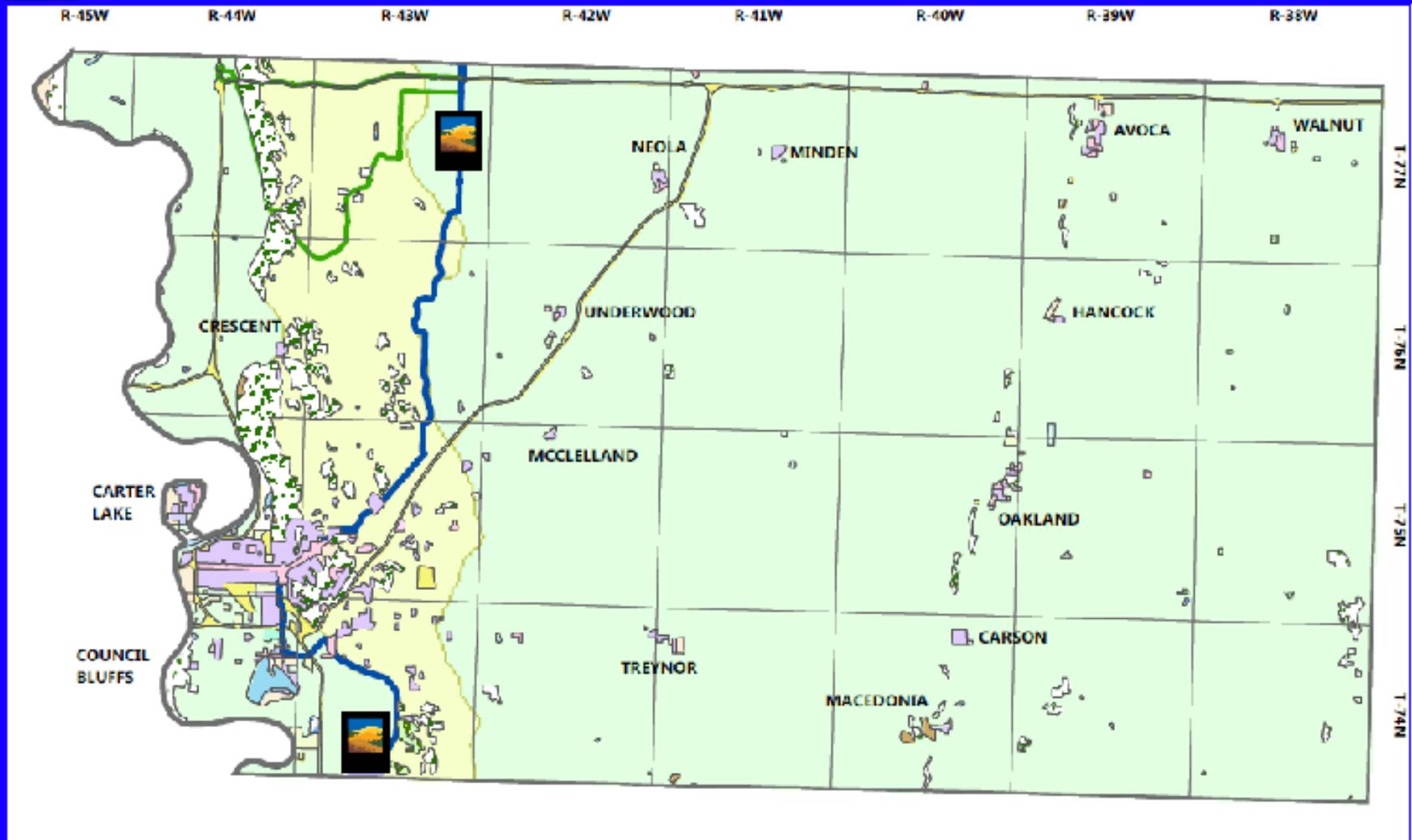




Land Use Land Cover Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



Loess Hills Scenic Byway Spine	Deciduous Forest Land	Mixed Urban or Built-Up Land	Residential
Loess Hills Scenic Byway Loop	Industrial	Orchard/Grove/Vineyards	Streets & Canals
Commercial & Services	Intermediate/Commercial/Corporate	Other Agricultural Land	Strip Mining/Open-Pit Mines
Contracting/Specimen	Lakes	Other Urban Built-Up Land	Transportation-Communication-Utilities
Cropland & Pasture	Mixed Forest Land	Reserve	Unknown

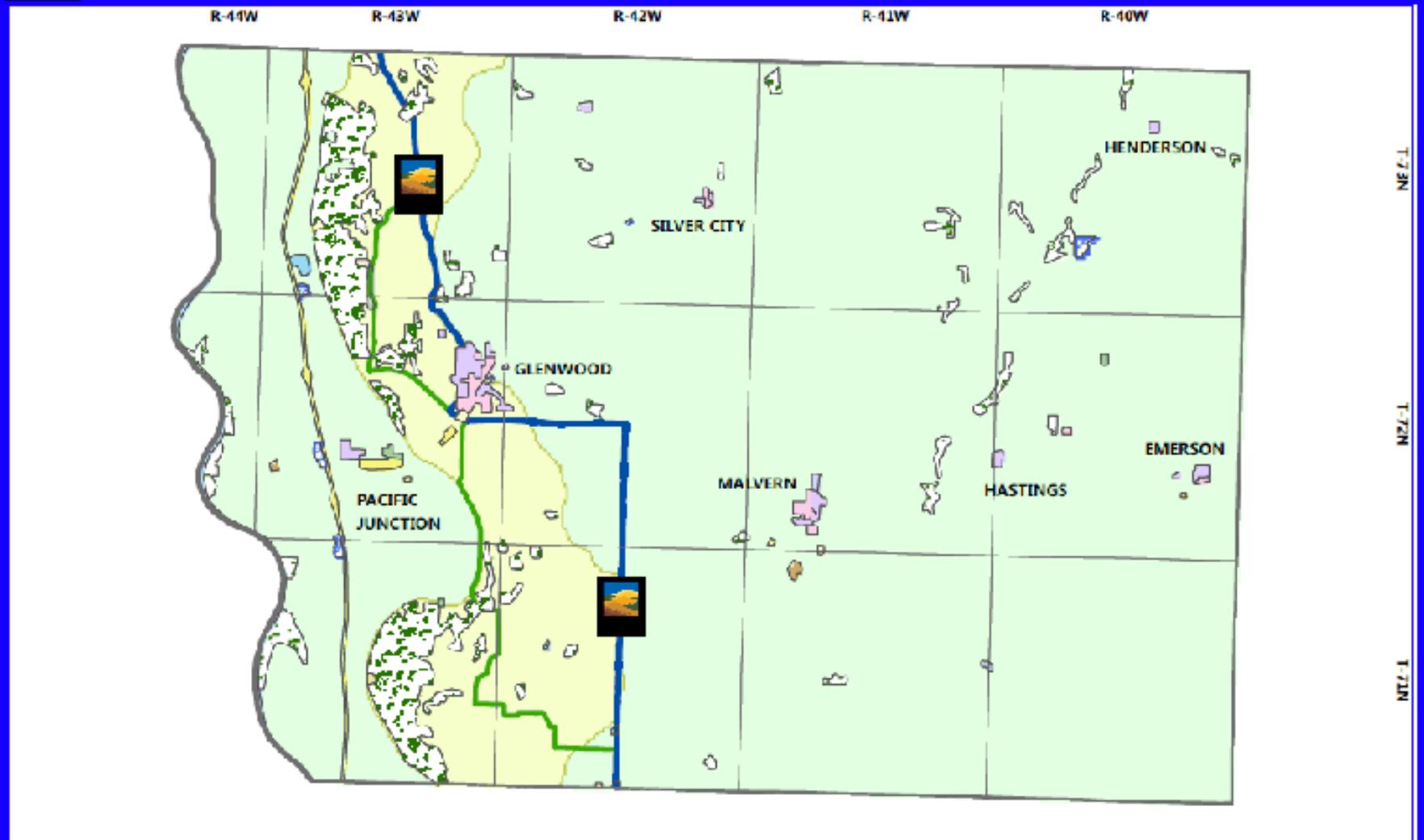




Land Use Land Cover Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattawie County GIS Department



Loess Hills Scenic Byway Spine	Wetlands	Other Agricultural Land	Very Mesic Prairie/Forest Wet
Loess Hills Scenic Byway Loop	Industrial & Commercial	Other Urban or Built-Up Land	Transportation-Construction Utilities
Unimproved Pasture	Lakes	Reservoirs	Unknown
Cropland & Pasture	Mixed Urban or Built-Up Land	Wetland	
Deciduous Forest Land	Corridor/Stream/Drainage	Streams & Canals	

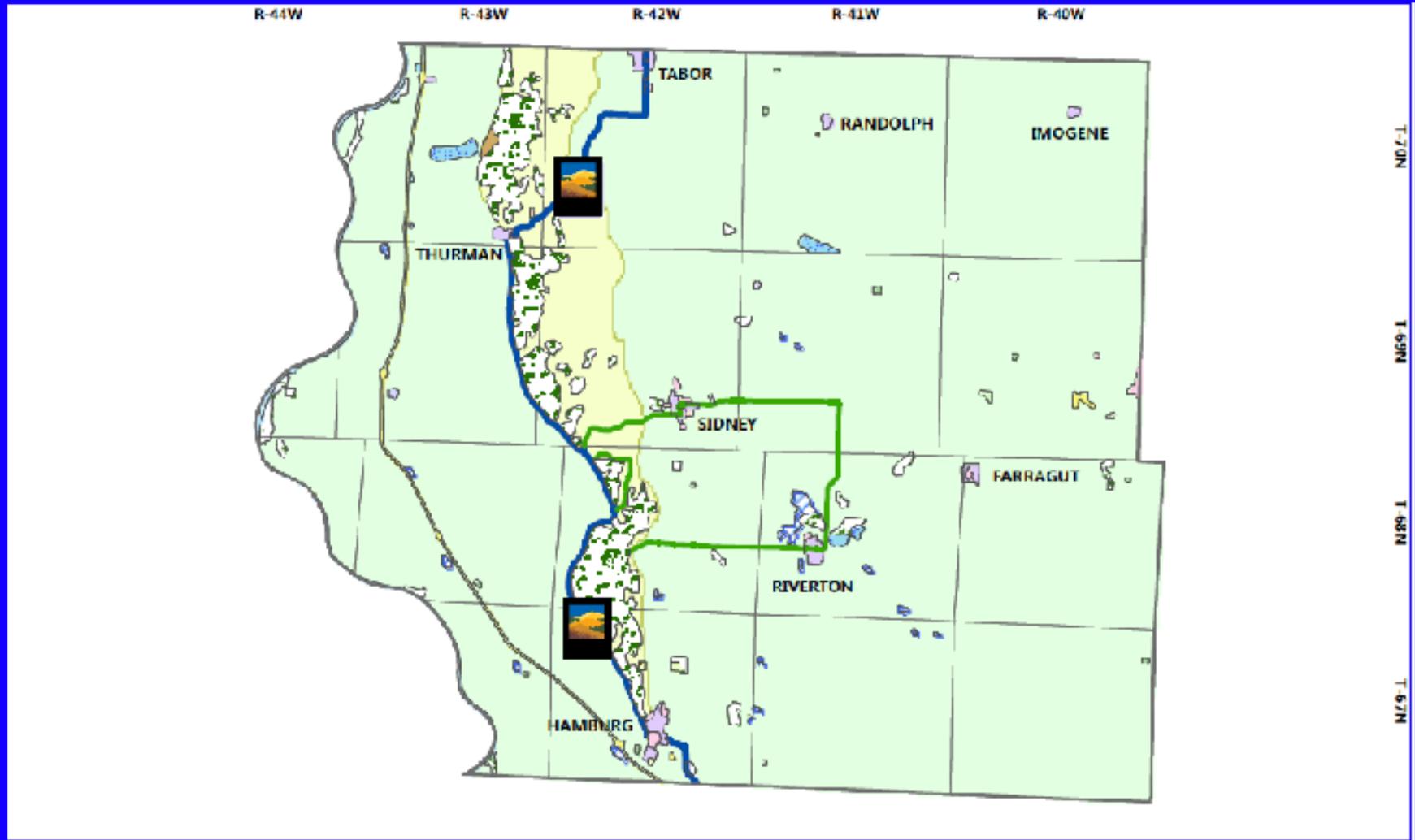




Land Use Land Cover Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- | | | | | |
|--------------------------------|---------------------------------|-----------------------|------------------------------|--|
| Loess Hills Scenic Byway Spine | Loess Hills Scenic Byway Loop | Evergreen Forest Land | Orchards-Groves-Woodlands | Streams & Canals |
| Commercial & Services | Lakes | Barren/Idle Land | Other Agricultural Land | Steep Slope/Quarries/Gravel Pits |
| Cropland/Acres | Mixed (Urban or Multi-Use) Land | Pasture | Other Urban or Built-Up Land | Transitional |
| Traditional Forest Land | Pastureland/Woodland | Barren/Idle | Reservoirs | Transportation/Communication/Utilities |
| | | | Industrial | Wetlands |



Assessing Future Impacts

Conditions in the Loess Hills National Scenic Byway Corridor are dynamic. Rural housing development, urban and industrial expansion, highway construction, mining operations and agriculture are ongoing activities that can significantly impact the intrinsic qualities of the Scenic Byway Corridor. Impacts caused by these activities could greatly diminish the area's attractiveness to travelers. Eventually, the negative impacts of these activities could result in irreparable damage to the Loess Hills, a region of recognized state, national and world significance.

A Resource Assessment Tool for the Loess Hills National Scenic Byway Corridor

Maintaining the intrinsic qualities of the Corridor requires that Scenic Byway stakeholders understand the impacts of certain activities and effectively work to influence the manner in which they take place. In order to assist stakeholders with these tasks, a corridor resource assessment tool has been developed as part of the Corridor Management Plan.

Development of the corridor resource assessment tool consisted of dividing the Loess Scenic Byway into 91 segments of between 2 to 7 miles in length and side of road designations "A" and "B". The segment breaks were determined primarily by landscape changes. Road, stream or railway intersections provided a landmark for segment breaks in areas of little change in landscape. An extensive inventory of resources and features in the Scenic Byway Corridor associated with each segment was completed. This information has been used in geographic information system (GIS) to create a comprehensive database and accompanying maps. A description of the information collected during the inventory is presented at the end of this chapter. Maps of the Scenic Byway segments used in the corridor resource assessment tool are also included at the end of this chapter.

The corridor resource assessment tool can be used to:

- Summarize resources and features present along segments of the Scenic Byway;
- Determine the relative rarity or commonality of resources and features in the Corridor;
- Assess land use management alternatives and changes in the Scenic Byway Corridor;

- Identify Scenic Byway segments with desirable features for special programs such as Integrated Roadside Vegetation Management; and
- Identify and rank the relative importance of segments with features that contribute to the quality of the travel experience in the Scenic Byway Corridor.

The database and mapping system are maintained by Golden Hills Resource Conservation and Development (RC&D). Assistance in applying the corridor resource assessment tool is available from Golden Hills RC&D, Inc. to all Byway stakeholder organizations.



Travel Experience Application

The corridor resource assessment tool contains information on resources and features present along segments that contribute to the quality of the travel experience in the Loess Hills National Scenic Byway Corridor. The use of this information to rate travel experience in the Corridor reflects the results of visual perception, recreational preference and landscape resource attitude studies conducted with more than 700 visitors and residents in the Loess Hills. The tool uses information in the corridor resource assessment database to assign relative ratings to each segment of the Scenic Byway with respect to the

quality of travel experience. For the purpose of this travel experience application, a relative rating of high is defined by a given segment of the Scenic Byway having the features and associated conditions described listed below. Maps of the travel experience application by county is included at the end of this chapter.

Route Assessment Rating System

The Loess Hills National Scenic Byway was divided into 91 segments of 2 to 7 miles in length; attributes have been mapped for each side of all 91 segments for use in route assessment, analysis and decision-making. The goals of Assessment Rating are to:

- Summarize resources and attributes present along a route segment; including vegetation, slope, recreation and other public use areas, travel experience
- Allow for a frequency calculation to determine rarity or commonality of an attribute within the system; most probable attributes include: travel experience, prairie and desirable woody vegetation, r.o.w. width, CRA presence, elevation
- Provide information to assist with land management and development changes within a segment, or between segments; e.g. to test for new commercial development suitability, a segment should not have the following attributes: > 20% slopes, desirable woody vegetation or prairie vegetation in foreground, w/o commercial development presently, landform enclosure present,
- Identify segments with good qualifications for IRVM seeding; sort to identify those with desirable woody vegetation, existing prairie land cover in ROW., lack of commercial development, non-mown ROW.
- Identify segments to protect roadway experience such as discouragement of roadway widening that includes ROW. regrading, overhead power line modifications; sort by: narrow row width, native vegetation present, sinuous alignment, most variable vertical alignment, either landform or vegetative enclosure, road cuts present, combinations with a view of the flood plain

The Loess Hills national Scenic Byway was evaluated according to the following attributes to determine a **Travel Experience Rating**. A **Travel Experience Rating** is defined by having a majority of the following attributes and equates somewhat to scenic quality

Within the Viewshed:

1. Percentage of undeveloped natural landscape,
2. Presence of earthwork changes,
3. Development present: residential - single housing, residential - housing development, commercial, agricultural/farm site, urban,
4. Forested land cover: deciduous, deciduous & evergreen, evergreen
5. Agricultural land cover: pasture, rowcropped
6. Water present: no, stream/river, lake, wetland
7. Visible quarry or landfill
8. Visible soil excavation
9. Predominant slope in viewshed: >20%, 9-20%, 2-9%, 0-2%
10. Predominant elevation of segment: baseline, mid-level or ridgetop
11. Predominant landcover within typical viewshed (including major classifications of row-cropped, forested, grazed, prairie, and development): > 80% rowcropped, more than 3 land covers present, 2 or 3 land covers present with no view of floodplain, 2 or 3 land covers present with view of floodplain
12. Significant resources within/close to viewshed: CRA, public recreation area, historic or cultural site
13. Eyesores present: none, some, a lot
14. Ridgeline condition: natural, obstructed

General Segment Information:

1. Horizontal alignment: straight, geometric, sinuous
2. Vertical alignment: no variation, moderate, most variation
3. pavement width: narrow, typical
4. ROW width: narrow, typical
5. Road shoulders: none, narrow, typical, extra-wide
6. road surface: paved, rock, dirt

Foreground View Information

1. Foreground land cover: housing, commercial development, rowcrop, pasture, desirable woody vegetation, prairie
2. Sense of enclosure: none or enclosed, by vegetation or landform or both
3. Roadside vegetation: % where native prairie species likely, desirable woody, unmown/mown
4. Road cuts with exposed soil: none, 1, 2, 3, >3

Additional Applications of the Corridor Resource Assessment Tool

Additional applications of the tool include the assessment of impacts to resources in the Corridor from roadway construction and land use changes. Roadway construction that can potentially impact resources in the Corridor include roadway and shoulder widening, vertical or horizontal roadway realignment, and the installation of bridges and drainage systems. These activities can impact desirable prairie and woodland land cover, roadway enclosure by the landform or vegetation, and natural landscape features such as wetlands and rivers.

Land use changes that can impact resources in the Corridor include residential, commercial and industrial construction, new or upgraded utility lines, and mining and soil excavation activities. These changes can impact land cover, the percentage of undeveloped landscape, number of eyesores, ridgeline condition, sense of enclosure, and natural landscape features.

Future Impact Actions

Future Impacts Action #1

Application of the corridor resource assessment tool to evaluate the impact from a particular activity will be helpful in planning and influencing change in the Loess Hills. The rating system will enable local governments, public agencies and private organizations to anticipate the consequences of proposed activities in the Scenic Byway Corridor. As a result, the tool can be used to identify the need for, and select, alternative courses of action that avoid or minimize negative impacts on resources in the Corridor. Byway stakeholders should familiarize themselves with the corridor resource assessment tool and apply the tool to evaluate and avoid any negative effects from all major activities that could potentially impact the Loess Hills.

Maps and Tables

Corridor Resource Assessment Segments - Map

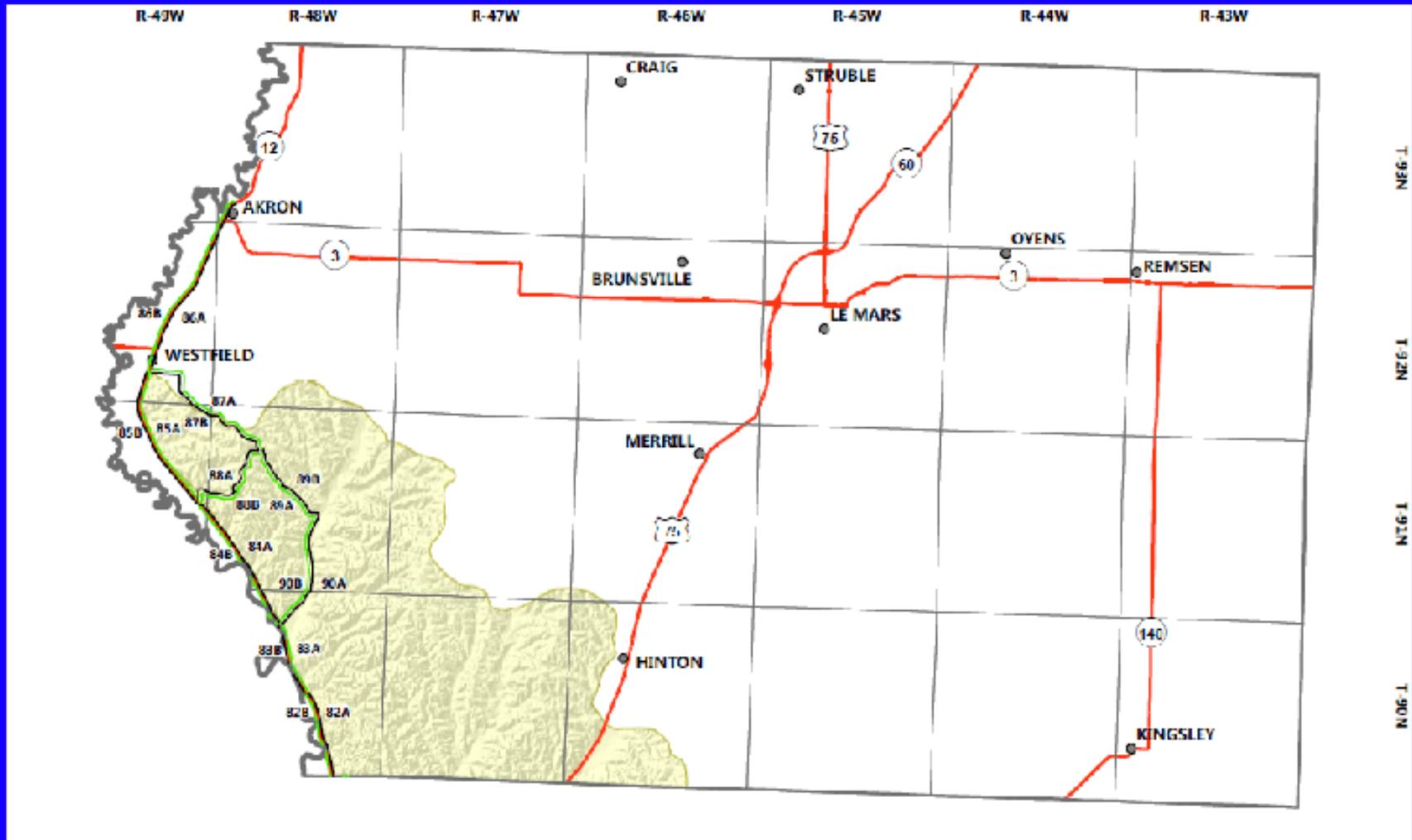
Corridor Resource Assessment - Quality of Travel Experience - Map



Byway Assessment Segments Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



81A Byway Segment Identification #

- Township Line
- Loess Hills Landform Region

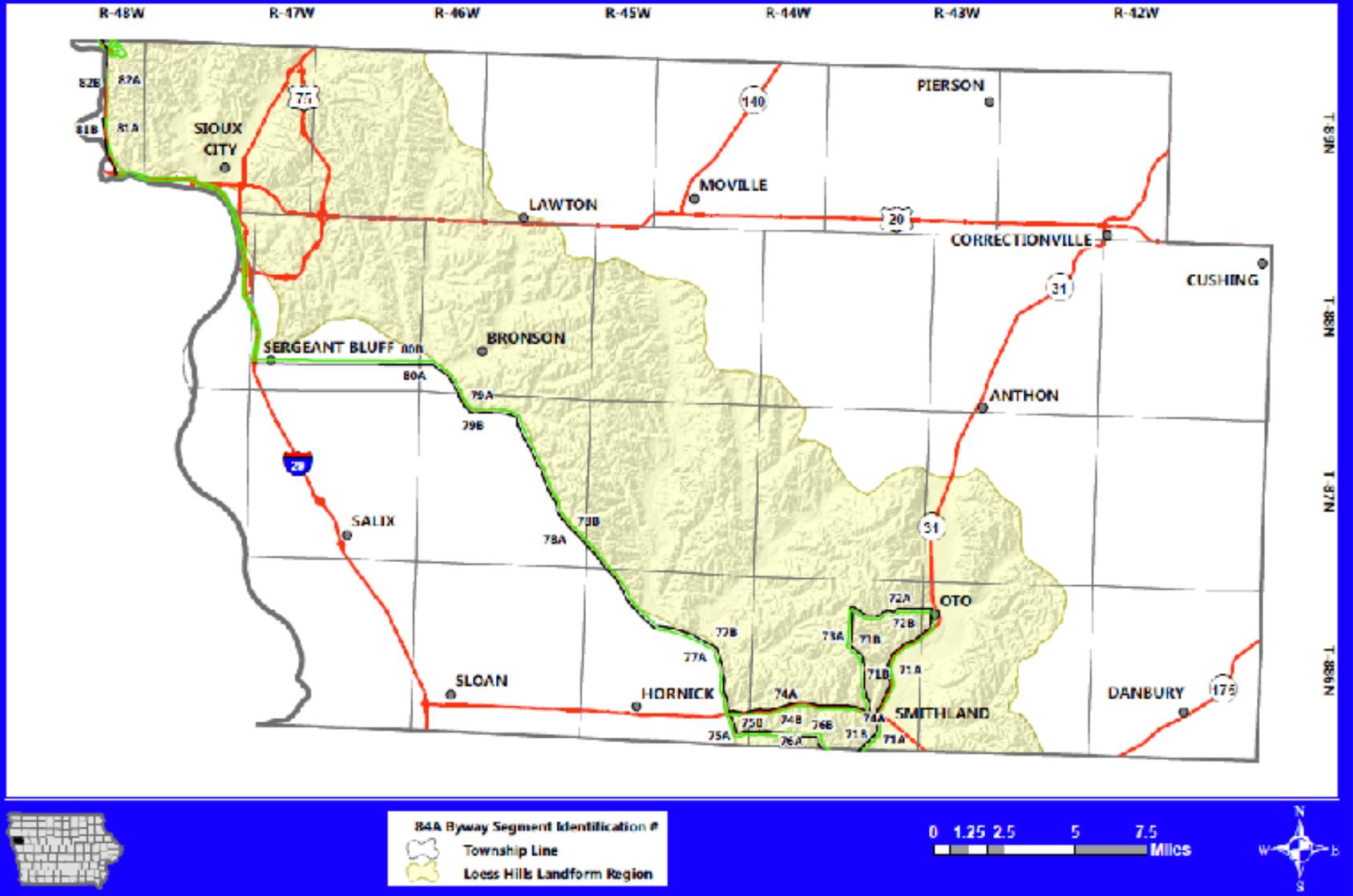




Byway Assessment Segments Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattomie County GIS Department

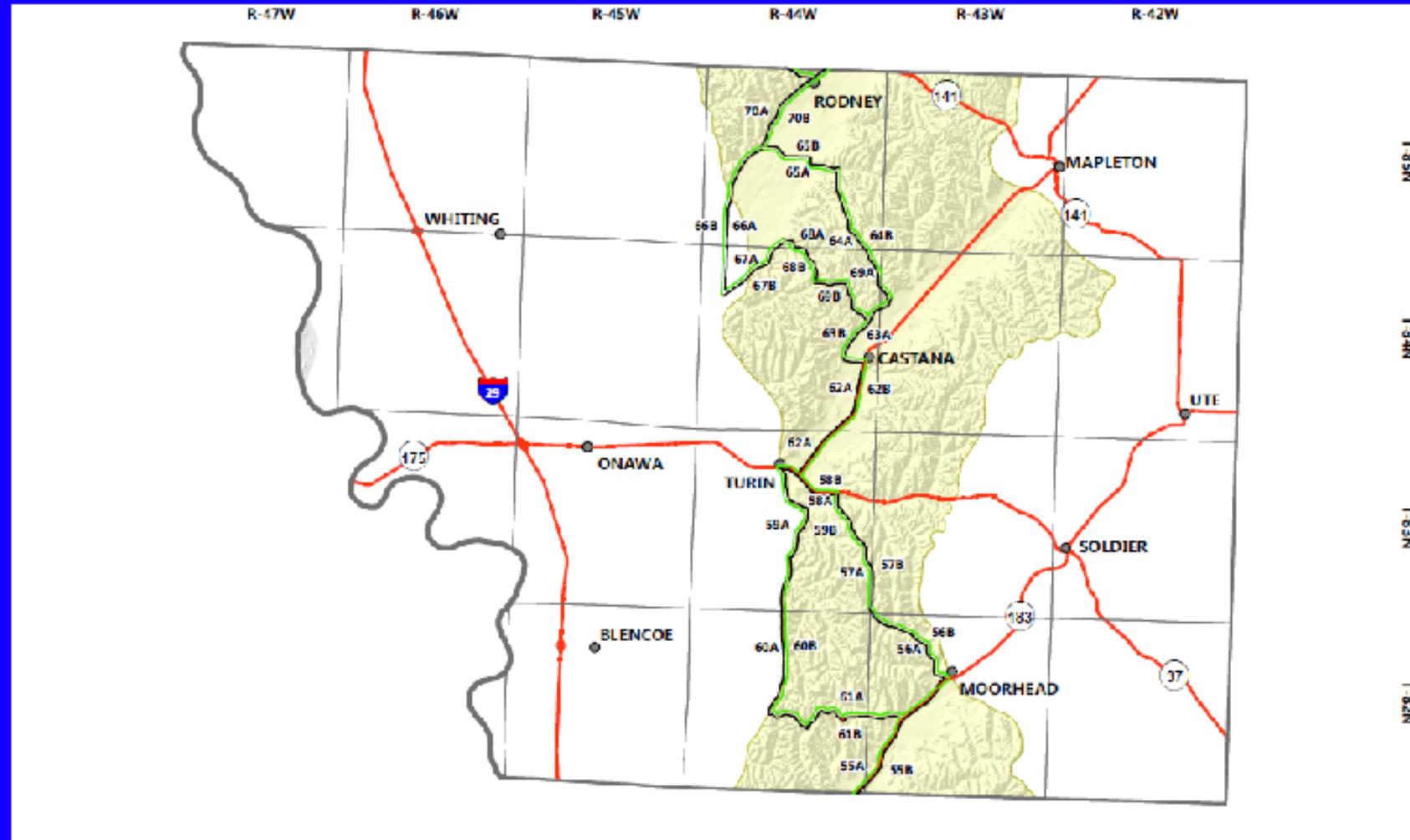




Byway Assessment Segments Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



84A Byway Segment Identification

- Township Line
- Loess Hills Landform Region

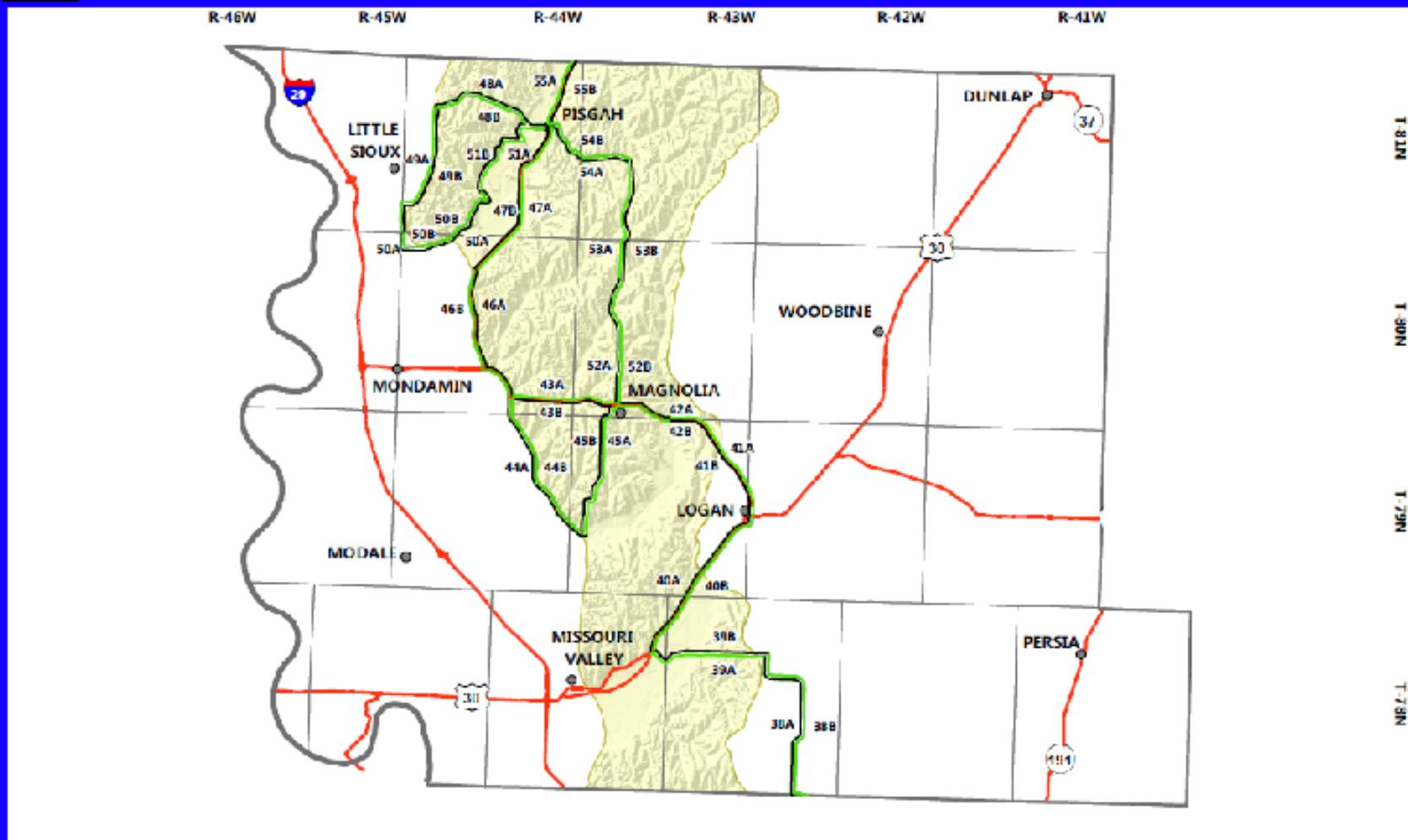




Byway Assessment Segments Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattawie County GIS Department



84A Byway Segment Identification #
Township Line
Loess Hills Landform Region

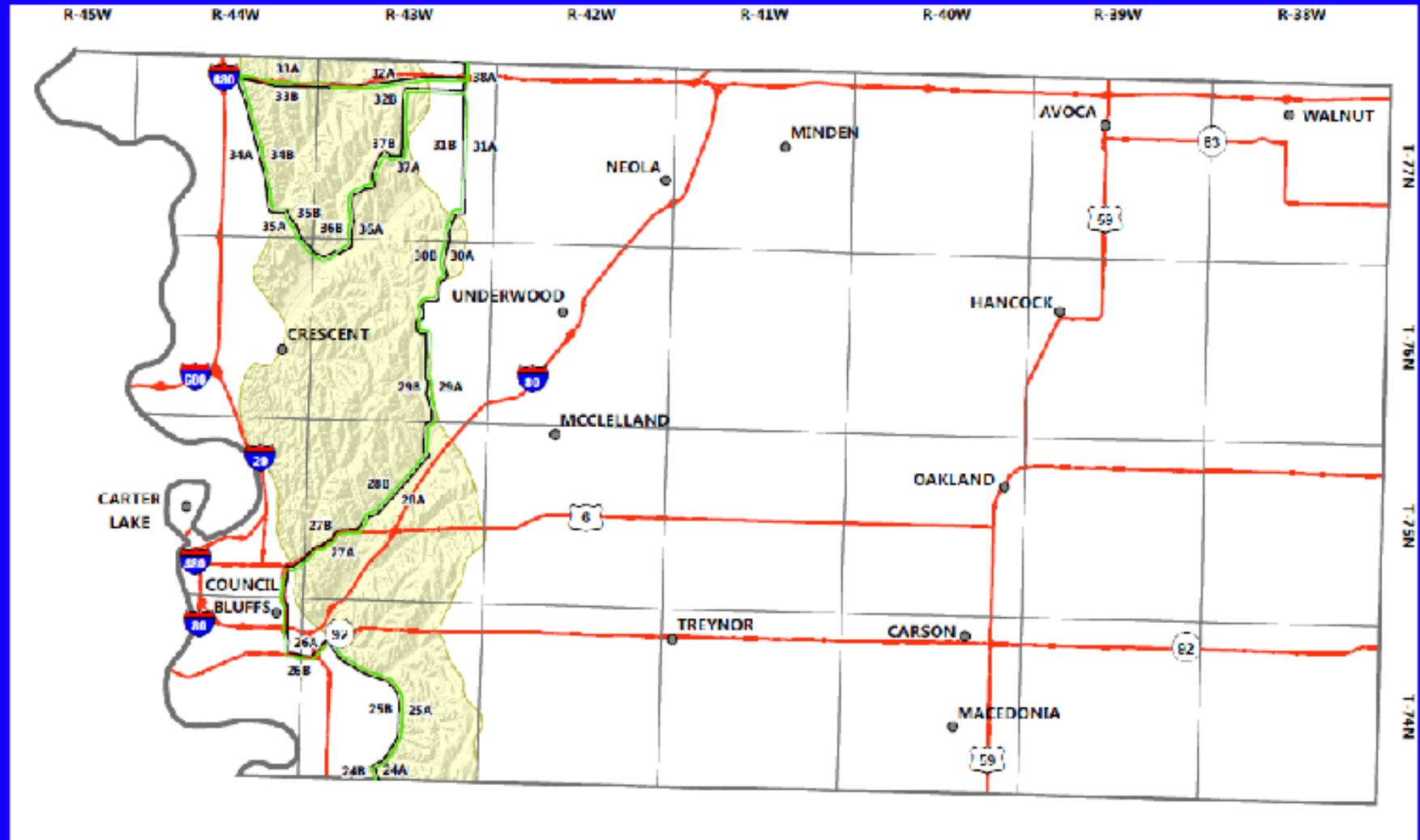




Byway Assessment Segments Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



81A Byway Segment Identification #

Township Line

Loess Hills Landform Region

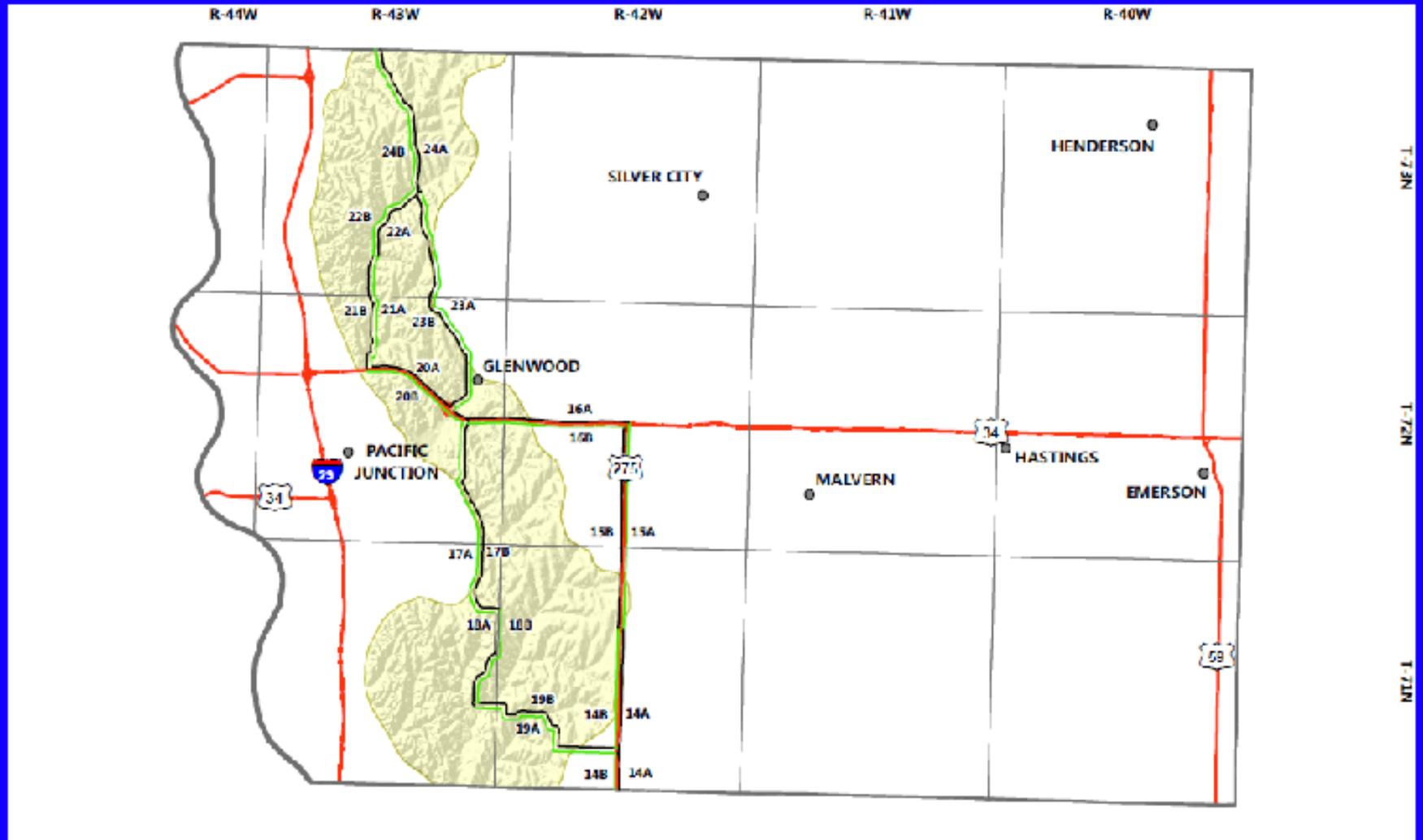




Byway Assessment Segments Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



84A Byway Segment Identification #

Township Line

Loess Hills Landform Region

0 1 2 4 6 Miles

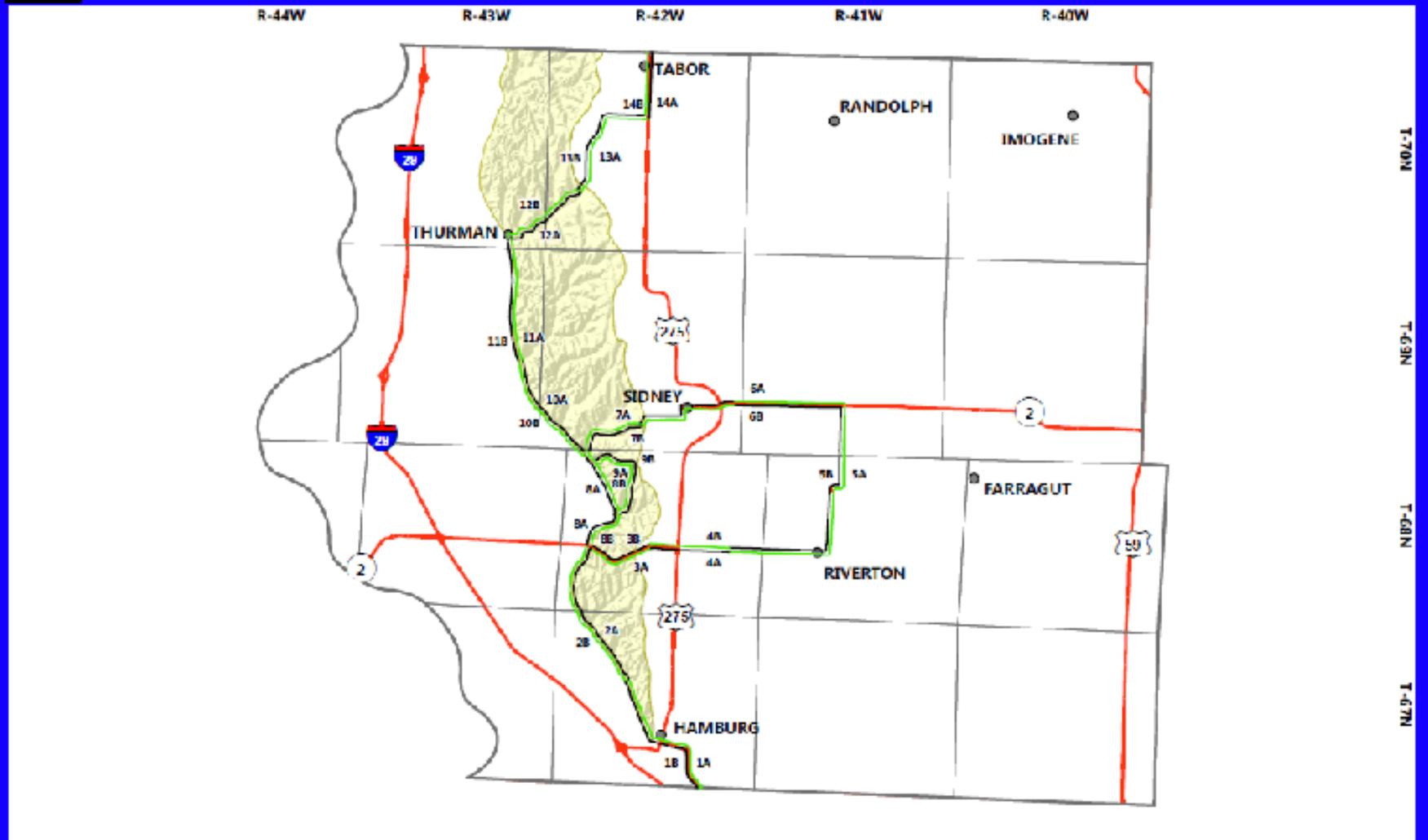




Byway Assessment Segments
Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pettawattamie County GIS Department



84A Byway Segment Identification #

- Township Line
- Loess Hills Landform Region

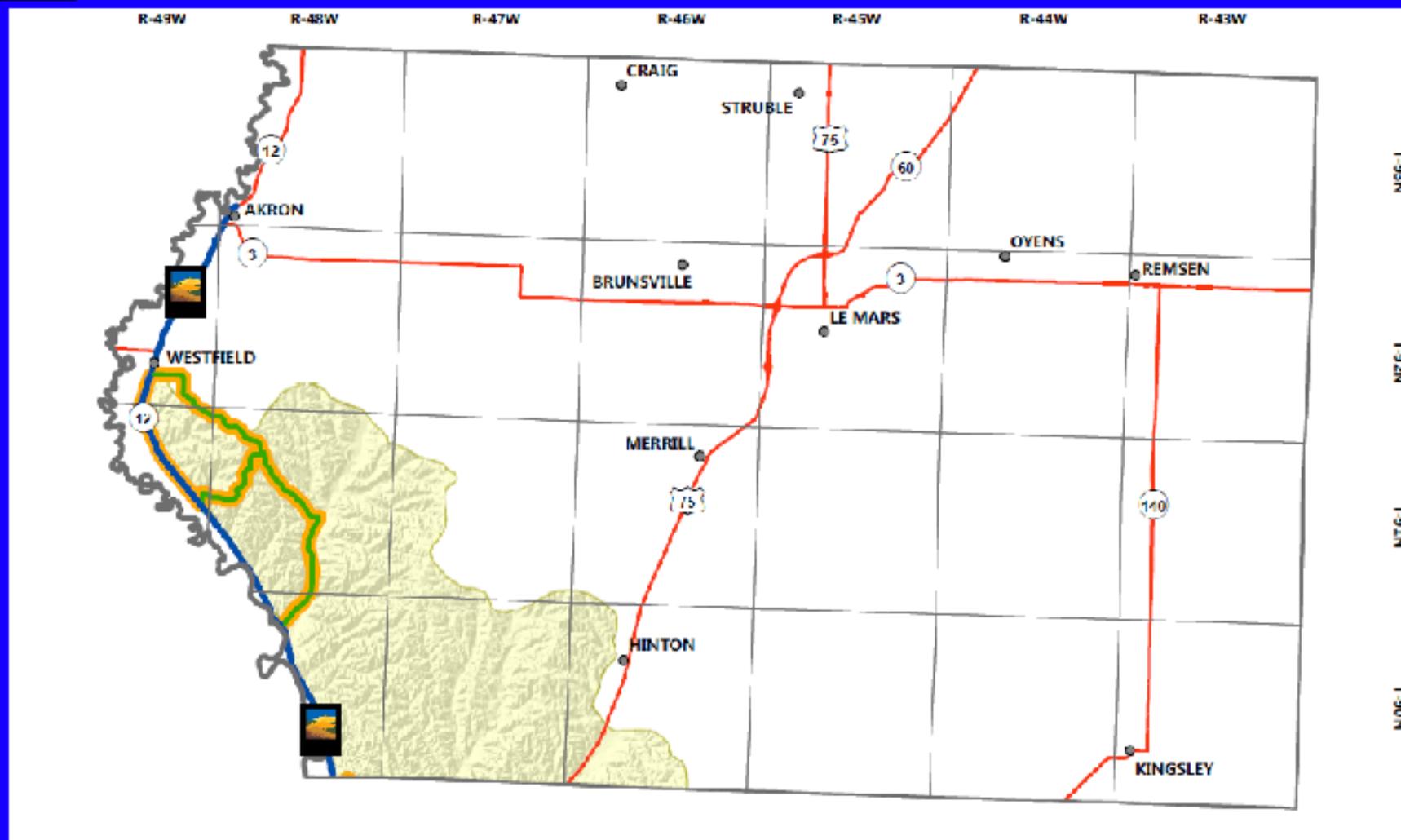
0 1.25 2.5 5 7.5 Miles



Quality of Traveler Experience Plymouth County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattomie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- High Quality Travel Experience
- Highways
- Township Line
- Loess Hills Landform Region

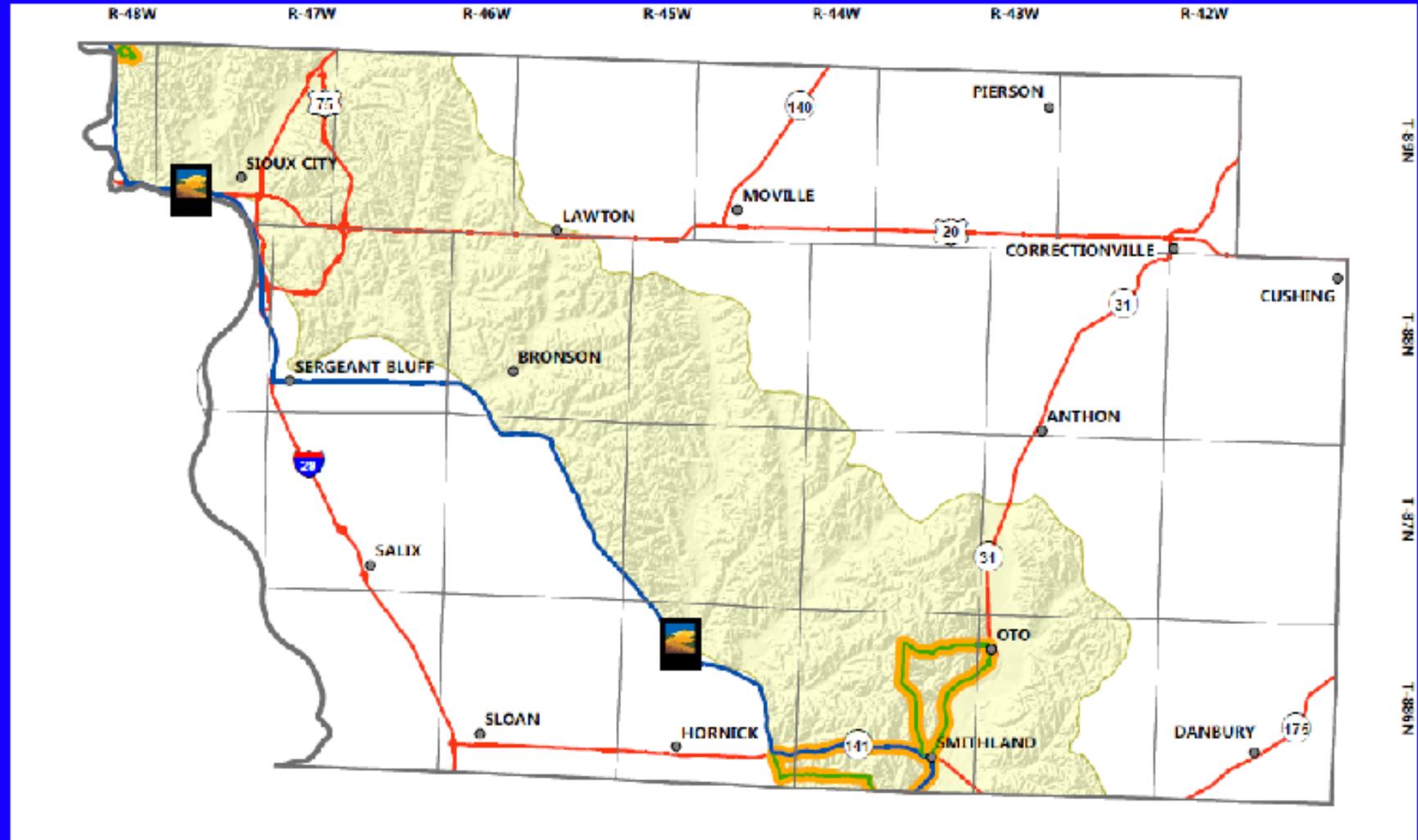




Quality of Traveler Experience Woodbury County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- High Quality Travel Experience
- Highways
- Township Line
- Loess Hills Landform Region

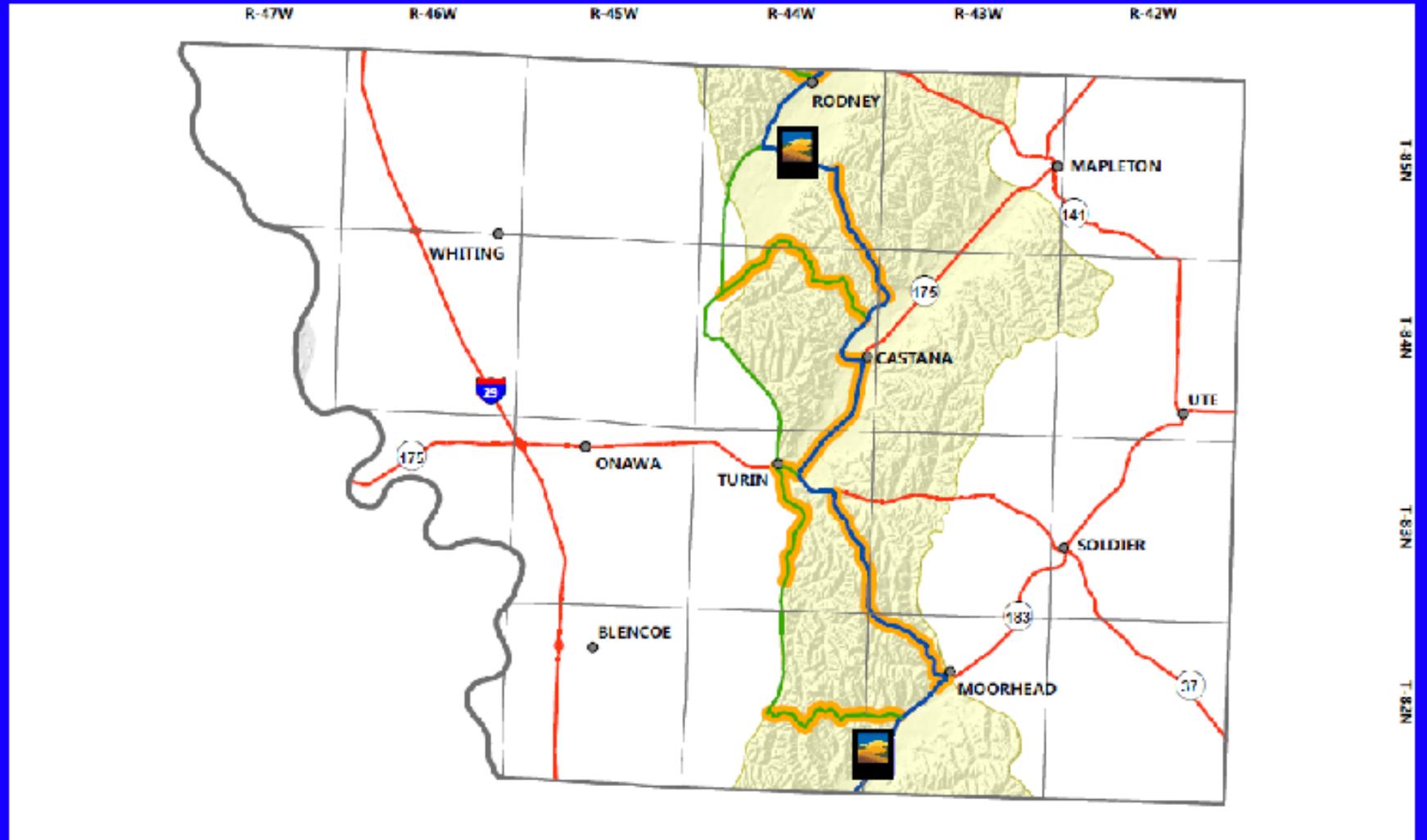




Quality of Traveler Experience Monona County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- High Quality Travel Experience
- Highways
- Township Line
- Loess Hills Landform Region

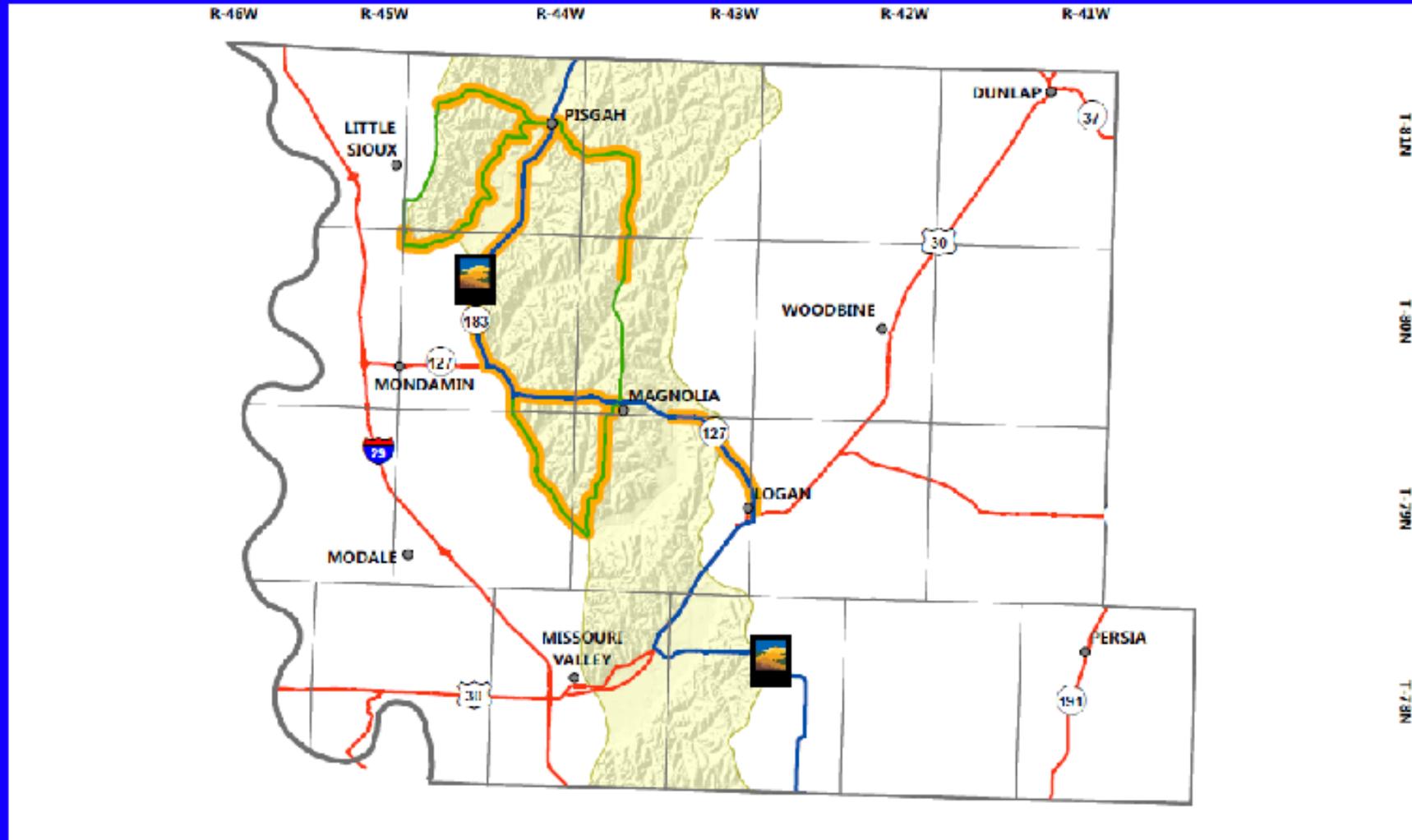




Quality of Traveler Experience
Harrison County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattamie County GIS Department



 Loess Hills Scenic Byway Spine	 Highways
 Loess Hills Scenic Byway Loop	 Township Line
 High Quality Travel Experience	 Loess Hills Landform Region

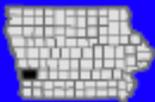
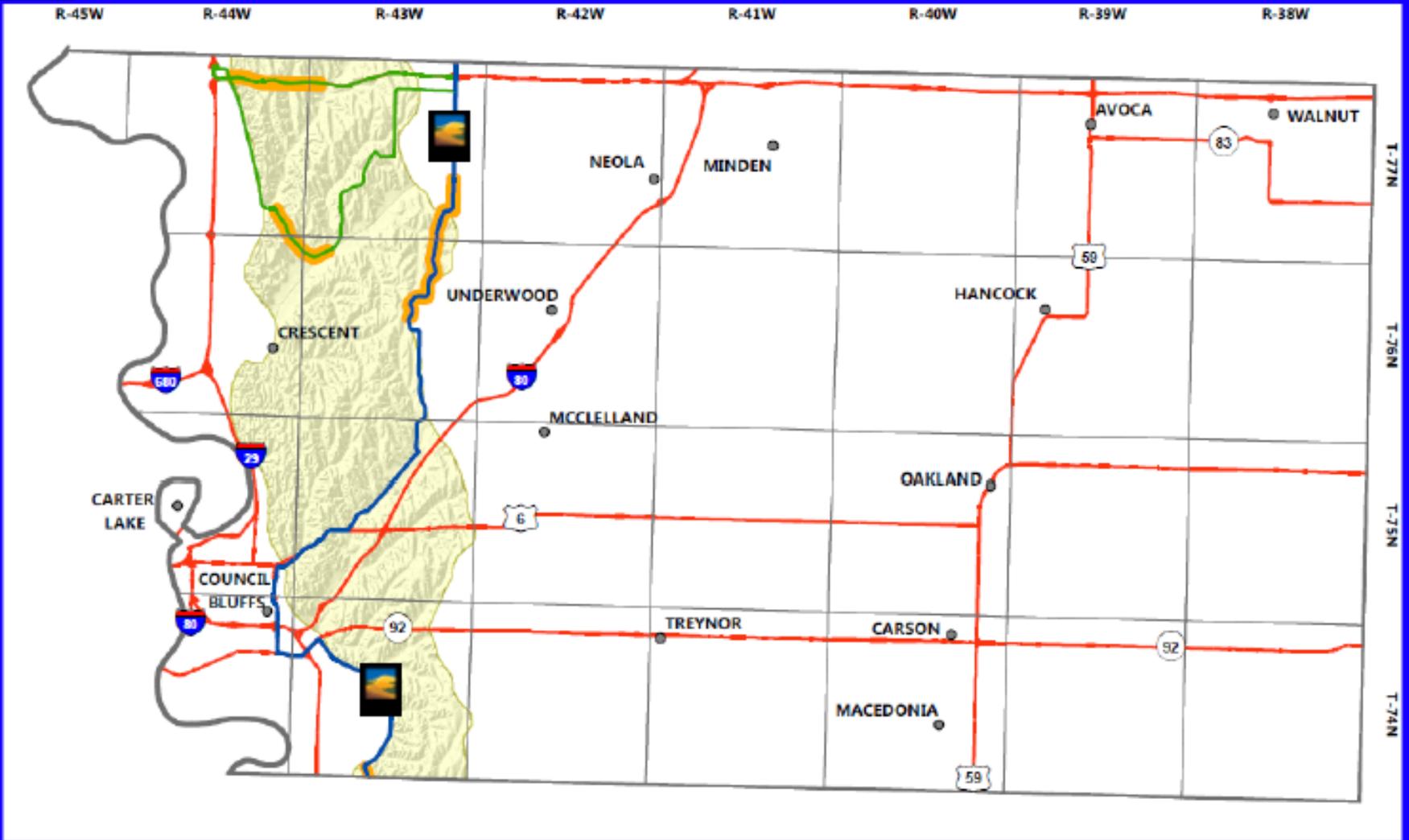




Quality of Traveler Experience Pottawattamie County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- High Quality Travel Experience
- Highways
- Township Line
- Loess Hills Landform Region

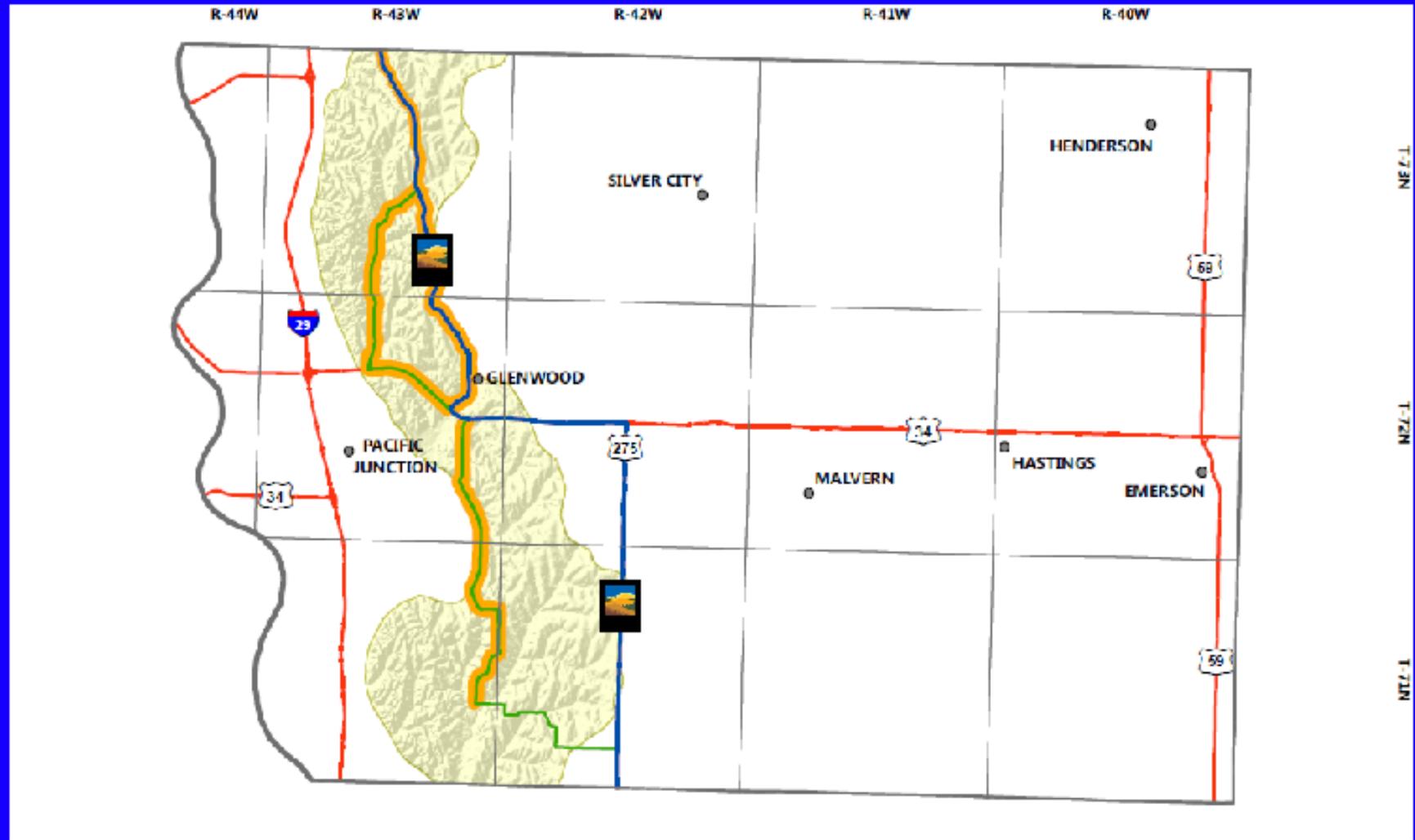




Quality of Traveler Experience Mills County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared by: Pottawattawie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- High Quality Travel Experience
- Highways
- Township Line
- Loess Hills Landform Region

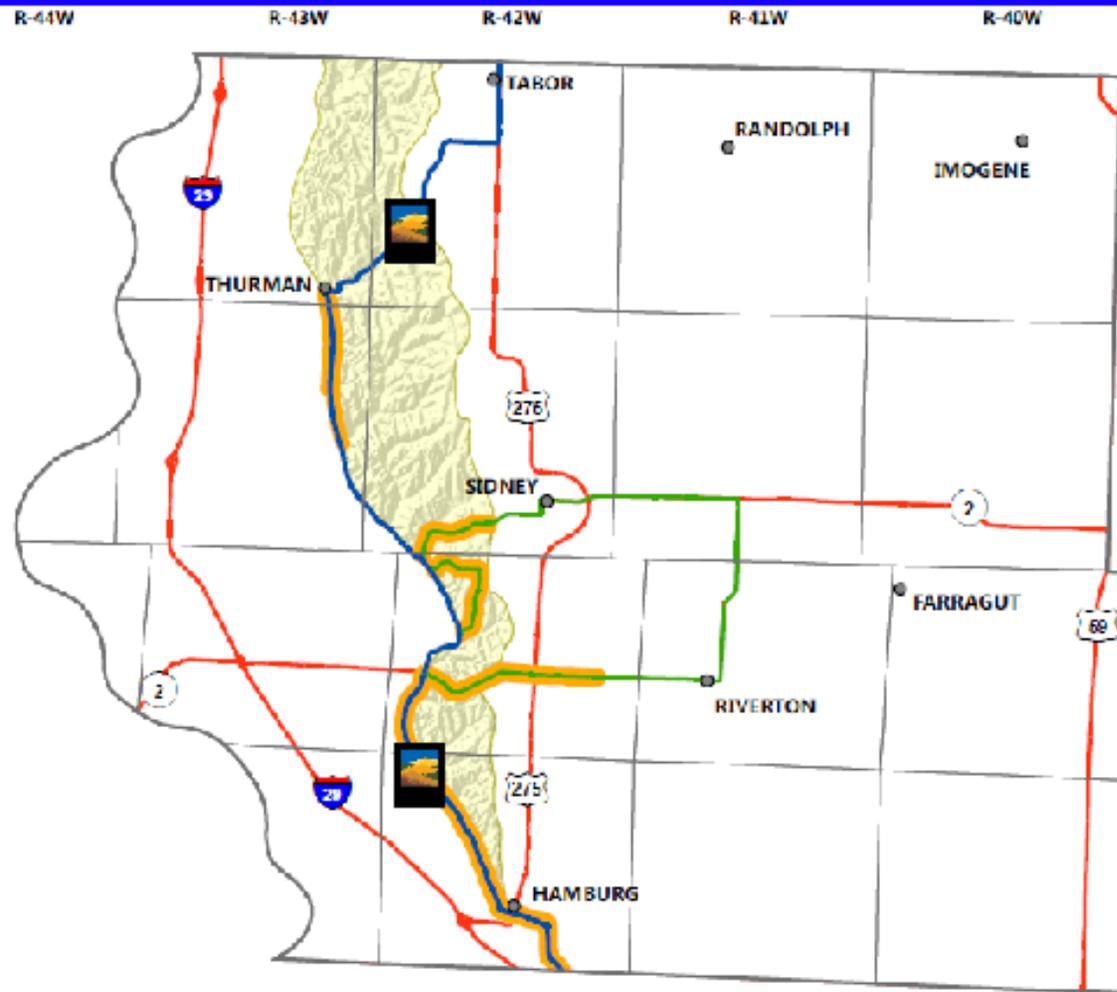




Quality of Traveler Experience Fremont County, IA

Loess Hills Scenic Byway Corridor Management Plan

Source: Golden Hills Resource Conservation & Development
Prepared By: Pottawattamie County GIS Department



- Loess Hills Scenic Byway Spine
- Loess Hills Scenic Byway Loop
- High Quality Travel Experience
- Highways
- Loess Hills Landform Region
- Township Line



Managing Roadsides and Entryways

Roadside management activities in the Loess Hills National Scenic Byway Corridor should be directed toward establishing and maintaining safe, stable and low maintenance community entryways and roadsides that are attractive to residents and visitors. The Iowa DOT numerous counties and communities cooperate in the implementation of a state-wide Integrated Roadside Vegetation Management (IRVM) program.

The IRVM program combines state and local resources and expertise to improve the cost effective management, environmental benefits, safety, and attractiveness of roadsides. IRVM practices focus on the use of native vegetation, integrated weed control, and soil conservation measures to improve the condition of roadsides. Currently, five of the seven counties in the Loess Hills National Scenic Byway Corridor participate in the IRVM program. Harrison and Plymouth Counties are not actively involved with the program at this time.

An important application of roadside management practices is the enhancement of community entryways. A community entryway is the land that is visible from a highway which connects the countryside with a community. It can also include important places associated with major thoroughfares within a community which connect one neighborhood or land use with another. These highways, county roads or streets provide the physical and visual environments for communities to make first impressions on visitors and lasting memories for residents.

Entryways provide opportunities to express the image or character of communities in the Loess Hills National Scenic Byway Corridor. The unique features of the Loess Hills should be integrated into each community in the Corridor. One way of doing this is by enhancing community entryways with native vegetation. Using native vegetation at the entryway of a community can create and reinforce its association with the Loess Hills. Adding other elements to the entryway design can then express each community's individual character. In addition to the resources available through the IRVM program, communities can seek professional assistance in designing entryways from landscape architects and other designers.

Managing Roadsides and Entryways Actions

Roadside Management Action #1

Counties and communities in the Loess Hills National Scenic Byway Corridor should work together with Iowa DOT to more fully develop the IRVM program in the region. Particular emphasis should be placed on the application of IRVM practices on roadsides along the Loess Hills National Scenic Byway.

Communities should be encouraged to assess their aesthetic appeal, especially at their entryways. Entryways should convey the message to travelers that a community is an integral part of the Loess Hills National Scenic Byway Corridor.



Marketing the Intrinsic Qualities

Tourism and Marketing Plan

Preparation of a marketing plan is an essential step in achieving the tourism related goals and objectives of a business, community, or region. Participation in developing a marketing plan enables private and public partners to identify and package their tourism product, assess and select tourist markets with the greatest potential, coordinate strategies and actions for reaching tourists and explore opportunities to capitalize on the economic benefits generated by tourism.

Several of the more important features of an effective tourism oriented marketing plan are the following:

- Developed through a cooperative effort between private businesses and organizations and public agencies;
- Recognizes and addresses travelers' interests and motivations, potential tourism growth, travel trends and niche markets, and spending habits and related behavior of tourists;
- Recommends product development and promotional activities that satisfy the needs of both travelers and tourism goods and service providers as efficiently as possible;
- Identifies themes around which attractions and events can be centered and that are of greatest interest and appeal to tourists;
- Identifies ways to present and interpret information for tourists that are honest, accurate, intelligent and creative; and
- Recommends ongoing evaluation and research to better focus future tourism related marketing and promotional efforts.

Success in developing a tourism marketing plan requires an understanding of the definitions of marketing and promotion. Often used interchangeably, these terms and the actions they define have distinct roles in tourism development. While both marketing and promotion deal with products and consumers, marketing focuses on the process of planning and executing the concept, pricing, promotion, distribution and exchange of goods and services. Marketing directs the flow of goods and services from the provider to the traveler. Promotion, consists of activities related to advertising, public relations and sales. It is the function of informing, persuading and influencing travelers regarding the purchase of goods and services

A Marketing Plan for the Loess Hills National Scenic Byway Corridor

The Western Iowa Tourism Region has coordinated the development of a marketing plan for the Loess Hills National Scenic Byway Corridor. Representatives of the organizations primarily responsible for marketing the Loess Hills and Scenic Byway cooperated with the Tourism Region in the plan's preparation. The contents of the plan were developed during a series of meetings among representatives of these major marketing organizations. Participants identified significant tourism resources, evaluated current marketing activities and reviewed market research in developing the plan. The plan puts forth important goals for successfully marketing the Loess Hills National Scenic Byway Corridor. The marketing plan also describes a series of specific actions to be taken to achieve these goals.

Marketing Plan Goals

The following goals are included in the marketing plan for the Loess Hills National Scenic Byway Corridor:

- Encourage the active participation of local businesses and communities in the Loess Hills National Scenic Byway Corridor in providing goods, services, and attractions for travelers;
- Enhance the experience of travelers in the Loess Hills National Scenic Byway Corridor by maintaining a comprehensive sign system, ensuring the availability of trip planning information, and providing on-site interpretation at welcome centers and major attractions;
- Facilitate cooperation between the state, counties, cities and businesses as well as development, conservation, tourism and community groups in tourism activities related to the Loess Hills National Scenic Byway Corridor;
- Achieve a more balanced approach to the use of resources directed toward the group and consumer travel markets; and
- Continually improve marketing activities for the Loess Hills National Scenic Byway Corridor by monitoring and evaluating the number, behavior, needs and economic impact of travelers as well as the effectiveness of marketing efforts.

Marketing Plan Actions

The following actions are included in the marketing plan for the Loess Hills National Scenic Byway corridor:

Marketing Action #1

Create and maintain a standing committee within the organizational structure of the Western Iowa Tourism Region that will actively pursue the implementation of marketing activities for the Loess Hills National Scenic Byway Corridor.

Marketing Action #2

Publish and distribute Loess Hills National Scenic Byway brochures that include easy to read maps and describe major attractions, identify visitor facilities and explain the sign system. The brochure will be distributed through visitor information centers in Iowa, major attractions in western Iowa, tourism service businesses and during marketing activities.

Marketing Action #3

Ensure adequate supplies of promotional materials about attractions and events in the Loess Hills National Scenic Byway Corridor for use in regional and state marketing activities.

Marketing Action #4

Include the Loess Hills and Scenic Byway in the Iowa Division of Tourism's Iowa Travel and Outdoor Guides and the Iowa DOT's Iowa Transportation Maps.

Marketing Action #5

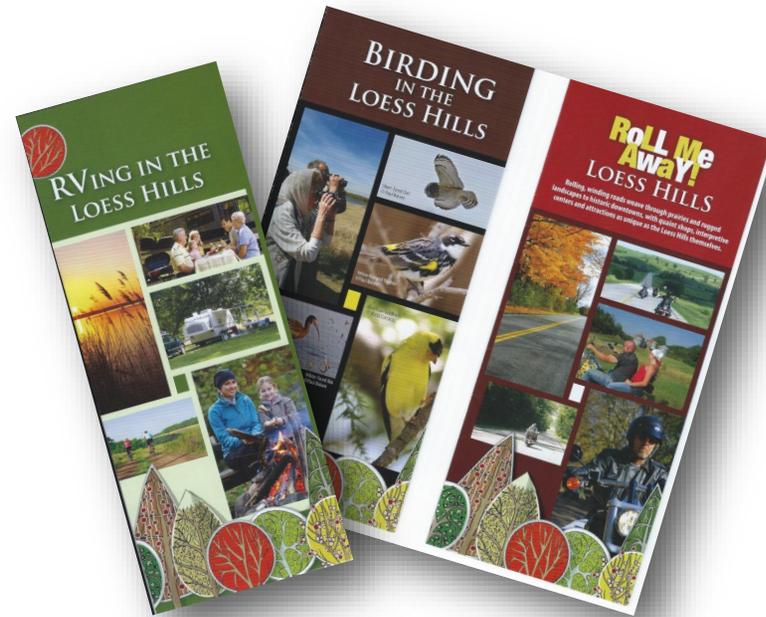
Develop and distribute press releases for Loess Hills and Scenic Byway related activities, attractions, and events to media within 150 miles of the Byway Corridor and in major markets.

Marketing Action #6

Create and maintain a Hospitality Program for communities and attractions in the Loess Hills National Scenic Byway Corridor that will include employee and resident training, distribution of visitor information, and the placement of Loess Hills Community and Loess Hills Attraction recognition signs.

Marketing Action #7

Market the Loess Hills and Scenic Byway for group and consumer travel in the following major market places: Kansas City, Quad Cities, Minneapolis, St. Louis, Des Moines, Omaha, Chicago, Milwaukee, Sioux Falls, Denver, Salt Lake City, National Tour Association, American Bus Association, Ontario and Pow Wow International.



Marketing Action #8

Conduct annual familiarization tours of selected attractions and events in the Loess Hills National Scenic Byway Corridor for travel writers and group travel companies.

Marketing Action #9

Participate in the Iowa Department of Tourism's cooperative marketing programs, including newspaper, magazine and radio advertising.

Develop and place cooperative advertisements promoting the Loess Hills and Scenic Byway in the Iowa Travel Guide, Omaha World Herald vacation/travel section, Des Moines Register vacation/travel section, Kansas City Tribune vacation/travel section, AAA Home and Away magazine, Midwest Living magazine, Iowan magazine, and specialty publications for targeted market segments including nature, outdoor recreation, and history enthusiasts.

Marketing Action #10

Develop cooperative marketing efforts between attractions in the Loess Hills National Scenic Byway Corridor and other major attractions in western Iowa to encourage visitors to travel between these attractions.

Marketing Action #11

Participate in programs that recognize the uniqueness and importance of resources in the Loess Hills National Scenic Byway Corridor, including the scenic byway programs at the state and national levels as well as those of AAA, the National Geographic Society and Scenic America and special designation programs such as the National Register of Historic Places.

Marketing Action #12

Publish and distribute a series of Loess Hills Discovery Guides that will describe the significant natural, scenic, historical, archeological, cultural and recreational resources in the Scenic Byway corridor. Discovery guides will be made available for purchase through visitor information centers in Iowa and major attractions in the Loess Hills National Scenic Byway Corridor.

Marketing Action #13

Develop a cooperative tourism marketing effort with organizations, agencies, businesses, attractions, and events on the Nebraska side of the Missouri River.

Marketing Action #14

Incorporate the tourism potential of the Loess Hills National Scenic Byway into the economic development, business planning and marketing activities of counties, communities and businesses in the Corridor.

Marketing Action #15

Track, analyze and make available information related to visitor interests, activities and needs in the Loess Hills National Scenic Byway Corridor including research conducted by the Iowa Division of Tourism and Iowa DNR.

Marketing Action #16

Monitor and evaluate the effectiveness of marketing activities for the Loess Hills and Scenic Byway by collecting, analyzing and making available information on the marketing activities of the Iowa Department of Tourism, Western Iowa Tourism Region, convention and visitors bureaus, welcome centers, major attractions and tourism service businesses.

Involving and Communicating With the Public

Local residents possess extensive knowledge about the special resources, or intrinsic qualities, of a scenic byway corridor. Similarly, they are frequently the first to recognize actual and perceived threats to these resources. Residents are keenly aware of the community and economic development benefits that travel on scenic byways can generate. The creation of a scenic byway is a means that residents can pursue to preserve a corridor's intrinsic qualities. A scenic byway also provides residents an opportunity to capitalize on the attractiveness of a region to tourists.

Integrating the Byway With Local Business

Providing quality goods and services to travelers that come to enjoy the Loess Hills National Scenic Byway Corridor not only increases the positive experience of the tourist, but also provides opportunities for communities and rural areas to develop new businesses and sustain or increase revenue for existing businesses. In order to reap the benefits of potential increases in tourism local businesses need to integrate the needs of travelers into their business plans. This applies not only to businesses directly associated with tourism needs, but also those businesses that support tourism businesses with supplies and services.

Providing Needs for Tourism

Businesses in the Loess Hills National Scenic Byway Corridor need to provide the products and services that will enrich the tourist's visit to the Scenic Byway. There are nearly one million visitors a year to the Loess Hills National Scenic Byway Corridor that need to eat, sleep, travel to another location and be entertained. Observations suggest, however, that many tourist-oriented businesses in the Loess Hills could more fully realize the benefits of making the Scenic Byway a key to their success.

Public involvement is essential to building support, developing a vision and preparing and implementing a management plan for a scenic byway. It is important to the success a scenic byway that all stakeholders have the opportunity to express their opinions about, and participate in, the byway's establishment, development and management.

The Public's Role in the Loess Hills National Scenic Byway

The Loess Hills National Scenic Byway is a product of the efforts of the residents in the counties and communities through which it travels. Local residents have been actively involved in the selection of Scenic Byway routes; design, fabrication and installation of signs; preparation and distribution of marketing materials; and the planning, development, and improvement of amenities in the Corridor. In addition, extensive input has been solicited from visitors to the Loess Hills that has helped guide the establishment and operation of the Scenic Byway.

Public involvement will continue to be an important part of the success of the Loess Hills National Scenic Byway. Scenic Byway stakeholder organizations should invest the time, effort and resources to encourage the participation of residents and visitors in the Scenic Byway. Committees that have contributed to the Scenic Byway's establishment can provide the structure to help ensure continued public participation. Public involvement activities, preference testing procedures and survey techniques applied during the Scenic Byway's development provide the means of gathering additional input from residents and visitors in the Corridor.

Public Involvement Actions

Public Involvement Action #1

Adoption of the Corridor Management Plan should include the formal establishment of a Loess Hills National Scenic Byway Management Team. The Byway Management Team should consist of representatives appointed by each of the principal Byway stakeholder organizations. These representatives should include elected officials from county and city governments in the Scenic Byway Corridor together with county and city engineers, conservation officers and planning and zoning officials.

The Byway Management Team should also include interested residents selected by each of the counties and communities through which the Scenic Byway travels. The primary responsibility of the Byway Management Team will be the implementation and periodic review and revision of the Corridor Management Plan.

Public Involvement Action #2

Surveys of visitor and resident travelers in the Loess Hills National Scenic Byway Corridor would be conducted annually. These surveys would help determine the adequacy of Scenic Byway amenities, signs, interpretive activities and marketing efforts. The surveys would also provide a measure of the economic impact of travel in the Corridor. Results of surveys conducted by other entities, including the Iowa DED's Division of Tourism and Iowa DNR should also be used to better address the needs and estimate the impact, of travelers in the Scenic Byway Corridor.

Public Involvement Action #3

Byway stakeholder organizations should organize, sponsor and conduct an annual conference. This conference or Loess Hills National Scenic Byway Summit, would be an opportunity for entities and individuals interested in all aspects of the Loess Hills to exchange information about their respective plans, activities and accomplishments. Specifically, the conference will provide feedback on the current status and needs of the Loess Hills National Scenic Byway. Representatives from other scenic byways and historic highways in Iowa and the United States should be invited to participate in the conference.



Implementation

Much work on the Loess Hills National Scenic Byway has already begun as a result of the Corridor Management Plan. A number of other activities are ongoing and have been incorporated into the Plan. In order to realize the full resource protection and economic development potential of the Loess Hills National Scenic Byway, Stakeholders must continue to work together to implement the actions identified in the Corridor Management Plan.

One of the first and most important steps in implementing the Corridor Management Plan will be for Primary Stakeholders identified on page 1-14 to adopt the Plan as a management and development guide for the Loess Hills National Scenic Byway Corridor. Each of the Supporting and Constituent Stakeholders should also adopt the Plan as a guide to their involvement in managing and developing the Scenic Byway Corridor.

A matrix of Corridor Management Plan Actions follows. Each Action is a summary of the more detailed Actions presented in the “Corridor Development Actions” section. The matrix identifies Stakeholders primarily responsible for completing each Action. In most cases, the assignment of responsibilities is the result of the many meetings and discussions that have

taken place between Stakeholders during preparation of the Plan. In some cases, responsibilities are assigned based on the close relationship between Actions and the activities normally carried out by Stakeholders. Stakeholders identified in the matrix are expected to take the lead in completing assigned Actions. It is anticipated that the remaining Stakeholders will actively support and participate in implementing Actions. Each Action has also been assigned a priority ranking of first, second, or third that suggests the relative and logical progression of their implementation.

Stakeholders should conduct a regular review of the Corridor Management Plan to celebrate completed Actions, determine the status of uncompleted Actions, and add new Actions that address future needs. Regular reviews will provide Stakeholders an opportunity to share their accomplishments, encourage the participation of others, and exchange ideas regarding implementation of the Loess Hills National Scenic Byway Corridor Management Plan.

Implementation Plan

Action	Responsible Stakeholders	Priority	Reference Page
Implementation Action #1 Adopting the Loess Hills National Scenic Byway Corridor Management Plan.	<ul style="list-style-type: none"> Counties Cities 	FIRST	137
Amenity Action #1 Address recommendations for existing amenities.	<ul style="list-style-type: none"> Counties Cities Iowa DNR 	FIRST	138
Site Amenity Action #2 Address recommendations for amenity additions.	<ul style="list-style-type: none"> Counties Cities Iowa DNR 	SECOND	143
Sign Action #1 Develop a licensing program that will ensure the appropriate use and protection of the Loess Hills National Scenic Byway logo.	<ul style="list-style-type: none"> Western Iowa Tourism Region Golden Hills RC&D 	FIRST	162
Sign Action #2 Install and maintain Scenic Byway route signs.	<ul style="list-style-type: none"> Counties Cities Iowa DOT 	FIRST	164
Sign Action #3 Install and maintain signs for amenities in the Scenic Byway Corridor.	<ul style="list-style-type: none"> Counties Cities Iowa DNR Iowa DOT 	SECOND	164
Sign Action #4 Pursue the placement of Interstate signs for qualifying amenities.	<ul style="list-style-type: none"> Counties Cities Iowa DNR Iowa DOT 	SECOND	165
Sign Action #5 Evaluate the need for and apply to receive approval to install tourist oriented directional signs.	<ul style="list-style-type: none"> Private businesses and attractions Iowa DOT 	THIRD	165
Sign Action #6 Design, fabricate, install and maintain the recommended interpretive signs.	<ul style="list-style-type: none"> Counties Cities Iowa DNR Iowa DOT Western Iowa Tourism Region Golden Hills RC&D 	SECOND	166
Sign Action #8 Provide bicycle route directional signs in accordance with the Sign Plan for the Loess Hills National Scenic Byway Corridor .	<ul style="list-style-type: none"> Counties Cities Iowa DOT Golden Hills RC&D 	SECOND	167

Action	Responsible Stakeholders	Priority	Reference Page
Bicycle Route Action #1 Produce and distribute maps of the bicycle routes.	<ul style="list-style-type: none"> • Golden Hills RC&D • Western Iowa Tourism Region • Counties • Iowa DOT 	FIRST	200
Bicycle Route Action #2 Monitor bicycling activities to ensure number and types of signs are adequate.	<ul style="list-style-type: none"> • Golden Hills RC&D • Counties • Iowa DOT 	SECOND	200
Bicycle Route Action #3 Maintain communication with bicycle clubs to keep up-to-date on their needs and promote Scenic Byway events and activities.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Golden Hills RC&D 	SECOND	200
Bicycle Route Action #4 Identify and develop new or modify existing bicycle routes.	<ul style="list-style-type: none"> • Counties • Cities • Iowa DOT • Golden Hills RC&D 	THIRD	200
Bicycle Route Action #5 Use regional events to promote bicycling opportunities in the Loess Hills.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Golden Hills RC&D 	SECOND	200
Interpretive Program Action #1 Establish a Steering Committee of Scenic Byway stakeholders to develop an interpretive program.	<ul style="list-style-type: none"> • Counties • Cities • Iowa DNR • Western Iowa Tourism Region • Golden Hills RC & D, Inc. 	FIRST	209
Interpretive Program Action #2 Prioritize and implement an interpretive program for the Loess Hills National Scenic Byway Corridor based on the Interpretive Master Plan (2015).	<ul style="list-style-type: none"> • Counties • Cities • Iowa DNR • Western Iowa Tourism Region • Golden Hills RC&D 	SECOND	213
Land Use Action #1 Adopt the Corridor Management Plan as a comprehensive plan, or amendment to an existing comprehensive plan, for the Loess Hills National Scenic Byway Corridor	<ul style="list-style-type: none"> • Counties • Cities 	FIRST	213
Land Use Action #2 Evaluate the need for, make necessary modifications to and adopt applicable model ordinances.	<ul style="list-style-type: none"> • Counties • Cities 	SECOND	213
Land Use Action #3 Cooperate in the enforcement of land use regulations in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> • Counties • Cities 	THIRD	213

Action	Responsible Stakeholders	Priority	Reference Page
Land Use Action #4 Encourage and facilitate the use and development of voluntary tools and programs that protect resources in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> Counties Cities Iowa DNR Golden Hills RC&D 	SECOND	213
Land Use Action #5 Plan and conduct annual workshops on the development and use of regulatory and voluntary land use tools that can protect resources in the Loess Hills.	<ul style="list-style-type: none"> Counties Cities Golden Hills RC & D, Inc. 	THIRD	213
Assessing Future Impacts Action #1 Apply the corridor resource assessment tool to evaluate the impact from activities in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> Counties Cities Iowa DNR Iowa DOT Golden Hills RC&D 	FIRST	231
Roadside Management Action #1 More fully develop the IRVM program in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> Counties Cities Iowa DOT Golden Hills RC&D 	SECOND	246
Marketing Action #1 Create and maintain standing Byway committee within the Western Iowa Tourism Region.	<ul style="list-style-type: none"> Western Iowa Tourism Region 	FIRST	248
Marketing Action #2 Publish and distribute a Loess Hills National Scenic Byway brochure.	<ul style="list-style-type: none"> Western Iowa Tourism Region Counties Cities Convention and Visitors Bureaus Golden Hills RC&D 	FIRST	248
Marketing Action #3 Ensure adequate supplies of promotional materials about attractions and events in the Scenic Byway Corridor.	<ul style="list-style-type: none"> Western Iowa Tourism Region Counties Cities Convention and Visitors Bureaus Private Businesses and Attractions 	SECOND	248
Marketing Action #4 Include Loess Hills National Scenic Byway in State Travel Guide and Transportation Maps.	<ul style="list-style-type: none"> Western Iowa Tourism Region Iowa DED Iowa DOT 	FIRST	248
Marketing Action #5 Develop and distribute press releases about attractions and events in the Scenic Byway Corridor.	<ul style="list-style-type: none"> Western Iowa Tourism Region Convention and Visitors Bureaus Private Businesses and Attractions Golden Hills RC&D 	THIRD	248

Action	Responsible Stakeholders	Priority	Reference Page
Marketing Action #6 Market the Loess Hills and Scenic Byway to both group and consumer travel markets.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Convention and Visitors Bureaus • Iowa DED • Loess Hills Hospitality Association 	FIRST	248
Marketing Action #7 Conduct annual familiarization tours.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Convention and Visitors Bureaus • Loess Hills Hospitality Association • Private Businesses and Attractions 	FIRST	248
Marketing Action #8 Participate in cooperative marketing programs.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Convention and Visitors Bureaus • Loess Hills Hospitality Association • Private Businesses and Attractions 	SECOND	248
Marketing Action #9 Develop cooperative marketing efforts between attractions in the Loess Hills National Scenic Byway Corridor and other major attractions in western Iowa.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Convention and Visitors Bureaus • Loess Hills Hospitality Association • Private Businesses and Attractions 	SECOND	248
Marketing Action #10 Participate in programs that recognize the uniqueness of resources in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> • Counties • Cities • Private Businesses and Attractions • Golden Hills RC&D 	THIRD	248
Marketing Action #11 Publish and distribute a series of Loess Hills Discovery Guides.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Counties • Convention and Visitors Bureaus • Iowa DNR • Golden Hills RC&D 	THIRD	249
Marketing Action #12 Develop a cooperative tourism marketing effort with Nebraska.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Convention and Visitors Bureaus • Iowa DED 	THIRD	249
Marketing Action #13 Incorporate tourism potential of the Loess Hills National Scenic Byway into economic development, business planning, and marketing activities.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Iowa Economic Development Authority • Convention and Visitors Bureaus • Counties • Cities • Private Businesses and Attractions • Golden Hills RC&D 	SECOND	249

Action	Responsible Stakeholders	Priority	Reference Page
Marketing Action #14 Track, analyze and make available information related to visitor activities and needs in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Iowa DED • Iowa DNR • Golden Hills RC&D 	THIRD	249
Marketing Action #15 Monitor and evaluate effectiveness of marketing activities for the Loess Hills and Scenic Byway.	<ul style="list-style-type: none"> • Western Iowa Tourism Region • Convention and Visitors Bureaus • Iowa DED • Private Businesses and Attractions • Golden Hills RC&D 	THIRD	249
Public Involvement Action #1 Establish a Loess Hills National Scenic Byway Management Team.	<ul style="list-style-type: none"> • Primary Stakeholders 	FIRST	250
Public Involvement Action #2 Conduct annual surveys of visitor and resident travelers in the Loess Hills National Scenic Byway Corridor.	<ul style="list-style-type: none"> • Counties • Cities • Golden Hills RC&D 	SECOND	250
Public Involvement Action #3 Organize and sponsor an annual Loess Hills National Scenic Byway conference.	<ul style="list-style-type: none"> • Counties • Cities • Golden Hills RC&D • Western Iowa Tourism Region 	THIRD	250

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