

GLACIAL TRAIL SCENIC BYWAY INTERPRETIVE MASTER PLAN



April 2018

Front cover: The sun sets in June 2016 on County C16 in the southwestern corner of the byway.

Facing page: Gravel roads leading north of the byway make up the Archaeological Landscapes loop.

GLACIAL TRAIL SCENIC BYWAY INTERPRETIVE MASTER PLAN

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Downtown Sutherland



Downtown Peterson

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Peterson celebrates its history with many museums and historical attractions.



Glacial formations are prominent along the byway.



Rolling scenery along the Parks Path in the middle of the byway loop.

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CHAPTER 1

INTRODUCTION



Wind turbines share the landscape with agriculture as the primary economic enterprises within the corridor.

INTRODUCTION

The Glacial Trail Scenic Byway loops 36 miles through the four corners of O'Brien, Clay, Cherokee, and Buena Vista counties, encompassing the scenic Little Sioux River valley. This landscape, with its views of glacial-formed river bluffs and forested valleys is distinctive from the Northwest Iowa Plains. The route passes through the small communities of Peterson and Linn Grove, and its 5-mile-wide corridor (as defined in the Glacial Trail Corridor Management Plan) includes the town of Sutherland.

A Prairie Landscape

The byway immerses travelers in the prairie landscape of the Little Sioux River valley. The valley harbors native Iowa grasslands second only to those in the Loess Hills to the west. Remnant prairies and oak savannas dot the bluffs above the river. Native flora and fauna abound in more than a dozen public parks and preserves along the byway. These scenic and natural qualities distinguish Glacial Trail from other Iowa byways.

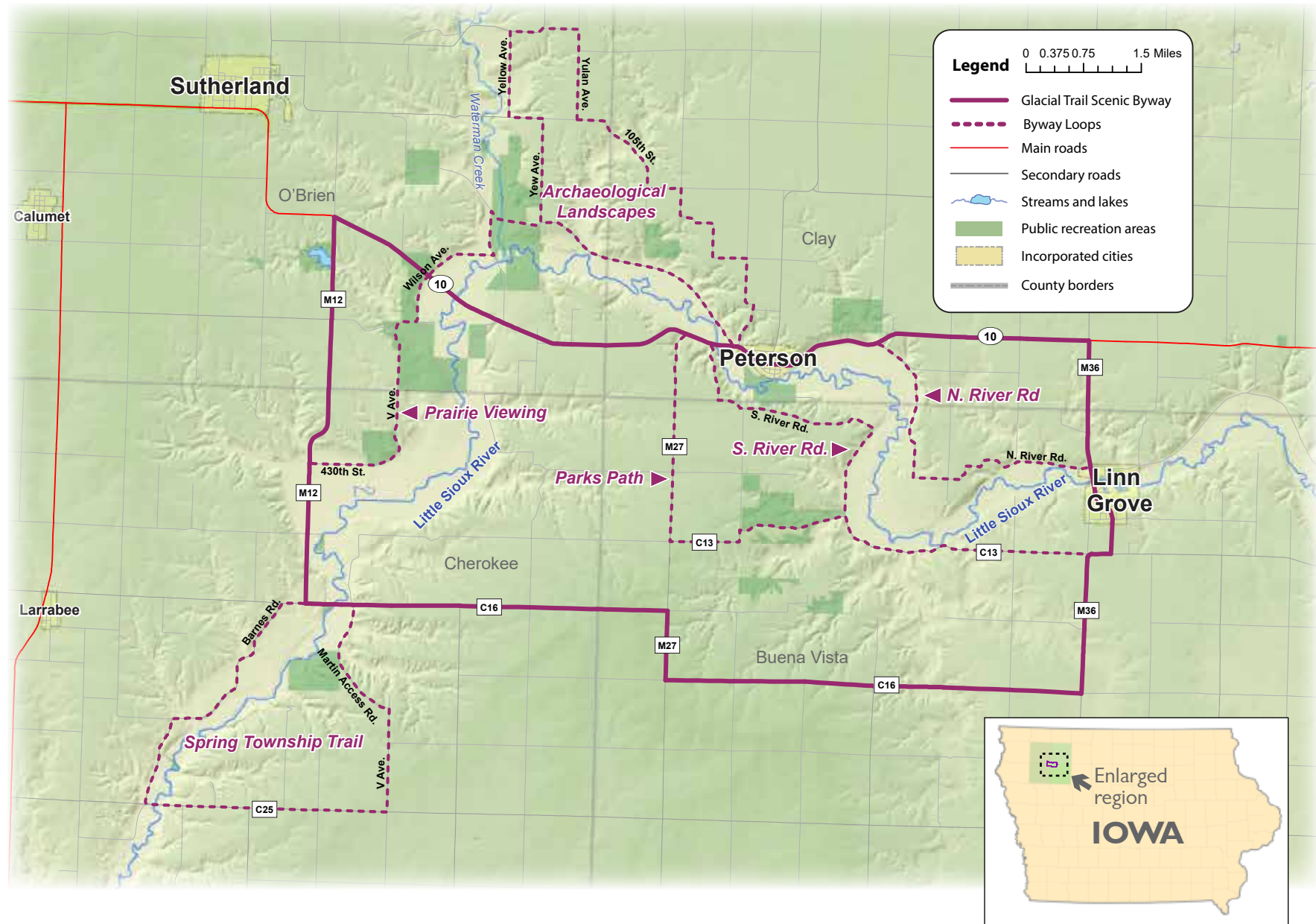
A Rich Cultural Heritage

Byway travelers value the human connections to the landscape. Tangible evidence of early settlement history and prehistory of the region are found in the seven sites listed on the National Register of Historic Places—four archaeological sites and three historic buildings. The Fort Peterson Blockhouse provides testimony to the early conflicts between settlers and Sioux and the story of Inkpaduta, the Wahpekute Sioux chief who led his band up the Little Sioux in the 1857 Spirit Lake Massacre. Several archaeological sites in the corridor are evidence of the Mill Creek Culture that lived here more than a thousand years ago.



The view from Waterman Prairie reveals bluffs cloaked in prairie and savanna along the meandering Little Sioux River.

GLACIAL TRAIL SCENIC BYWAY MAP





These uniform Iowa Scenic Byway signs marked the byways from 1993 to 2011.

ESTABLISHING THE BYWAY

The Iowa Byways program began in 1993 when the Iowa Department of Transportation designated four routes as Iowa Scenic Byways to encourage tourism. Nine additional byway routes were added between 1998 and 2016.

The current Iowa State Byways are:

- Grant Wood, 1993
- River Bluffs, 1993; additional segments, 2000
- Western Skies, 1993
- Historic Hills (originally named Woodlands), 1993
- Iowa Valley, 1998
- Loess Hills, 1998 (designated a National Scenic Byway, 2000)
- Driftless Area, 2000
- **Glacial Trail, 2000**
- Delaware Crossing, 2002
- Lincoln Highway Heritage Byway, 2006
- Covered Bridges, 2016
- White Pole Road, 2016
- Jefferson Highway Heritage Byway, 2016

Initially, uniform Iowa Scenic Byway signs were placed along these routes. However, the byways lacked local support and promotion, and there was little or no information provided to tourists about what to see and do.

The Iowa Byways Sustainability Project (IBSP) began in 2008 as a response to this need. The IBSP is a collaborative effort between the Iowa Department of Transportation (DOT) and Resource Conservation and Development Councils (RC&D) across Iowa to preserve, protect, interpret, and promote Iowa's scenic byways. Golden Hills RC&D in Oakland serves as the lead entity for Glacial Trail Scenic Byway. In the intervening years, much has been accomplished in this mission to interpret and promote the byways.

SCOPE OF WORK

In January 2012, Golden Hills RC&D, based in Oakland, Iowa, was awarded a Transportation Enhancement Grant through the Iowa Department of Transportation to complete interpretive master plans for ten Iowa byways. Additional funds were awarded for the Loess Hills National Scenic Byway plan and the Western Skies Scenic Byway plan through the Iowa West Foundation.

A request for proposals was issued in early 2013, seeking interest from firms to provide professional services to develop long-range interpretive master plans for Iowa's byways. Four firms were interviewed in August 2013. In February 2014, a professional services agreement for the ten interpretive master plans was entered into between Golden Hills RC&D and Schmeckle Reserve Interpreters, University of Wisconsin-Stevens Point.

Schmeckle Reserve Interpreters agreed to develop one interpretive master plan for each of the following scenic and historic Iowa Byways: Delaware Crossing, Driftless Area, Glacial Trail, Grant Wood, Historic Hills, Iowa Valley, Lincoln Highway, Loess Hills, River Bluffs, and Western Skies.

The work is divided into three phases, with Loess Hills and Western Skies completed in the first phase. Phase one interpretive master plans were delivered in 2015. Phase two included interpretive master plans for Driftless Area, River Bluffs, Grant Wood, Delaware Crossing, and Iowa Valley scenic byways. These plans were delivered in 2016 and 2017. Phase three includes plans for Historic Hills, Glacial Trail, and Lincoln Highway scenic byways. These were delivered in 2017 and 2018.

Each interpretive master plan is based on the following tasks:

- Task 1: Inventory and Analysis of Byway Resources
- Task 2: Stakeholder Coordination and Public Input Process
- Task 3: Development of Interpretive Themes and Conceptual Interpretive Plan
- Task 4: Finalize Interpretive Plans with Recommendations and Design of Interpretive Elements
- Task 5: Reporting



Updated Iowa Byway Glacial Trail signs, with a bison as the icon, mark the loop route.

THE PLANNING PROCESS

Interpretation is defined as a communication process that guides visitors in their search for meanings in objects, places, and landscapes. We adhere to the philosophy that interpretive planning is a process of consensus development—of achieving a shared perspective by all stakeholders of why interpretation is needed, who it will serve, and what significant stories it will tell. Effective planning answers the following questions, which can be illustrated by the Planning Triangle:

Who?

Determine who the byway visitors are and the experiences that they are seeking. This includes activities and visitor groups that are not currently being targeted.

Chapter 3: Byway Travelers

Why?

Confirm and/or further define the purpose, vision, and goals of developing a master plan for the Glacial Trail Scenic Byway.

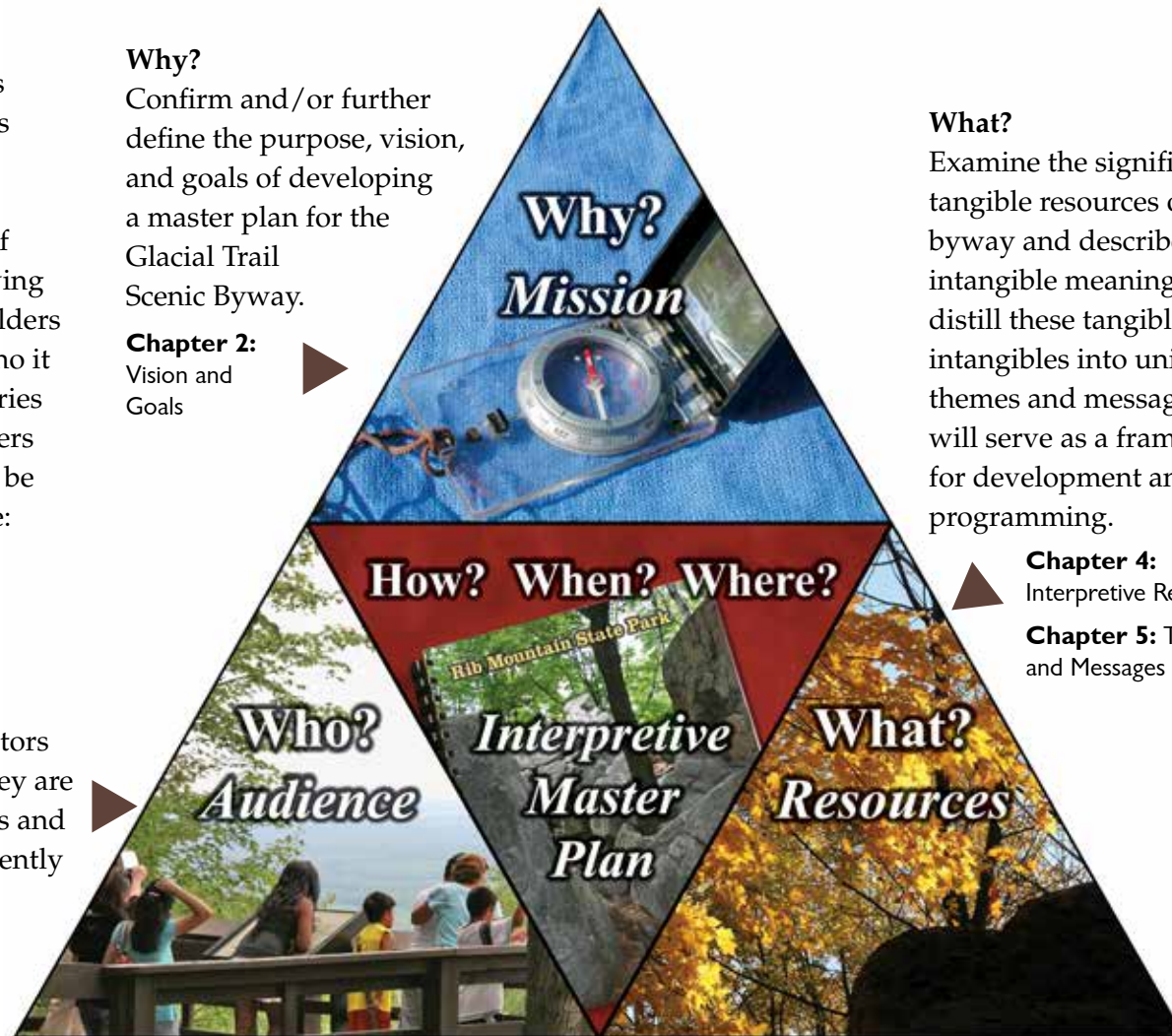
Chapter 2:
Vision and Goals

What?

Examine the significant tangible resources of the byway and describe their intangible meanings. Then, distill these tangibles and intangibles into unifying themes and messages that will serve as a framework for development and programming.

Chapter 4:
Interpretive Resources

Chapter 5: Themes and Messages



Where? When? How?

Based on the why, who, and what, develop a plan for interpretive facilities, media, and programs that best facilitate visitor-resource connections within the parameters of the mission and vision of the Glacial Trail Scenic Byway.

Chapter 6: Interpretive Media

REFERENCES

- ▶ *Glacial Trail Scenic Byway Corridor Management Plan* (2013). Iowa Lakes Resource Conservation and Development.

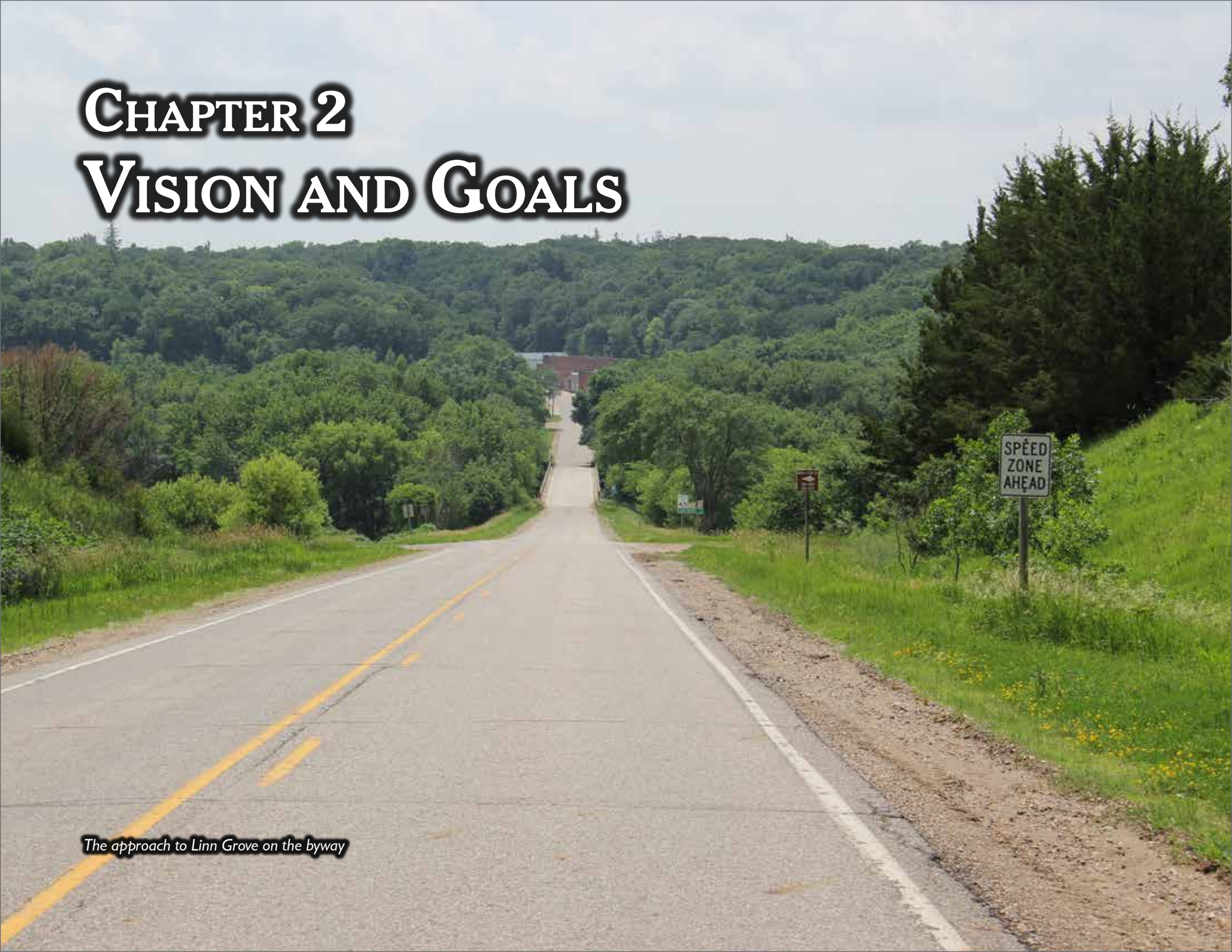


Agricultural enterprises such as cattle and crops are common in the rolling terrain of the byway.

CHAPTER 2

VISION AND GOALS

The approach to Linn Grove on the byway





Looking for grassland birds at Steele Prairie State Preserve in Cherokee County.

VISION AND GOALS

A strong vision and mission statement supported by established values and goals is necessary to guide the future planning, management, and implementation efforts for interpretation along the Glacial Trail Scenic Byway.

The Glacial Trail Scenic Byway Corridor Management Plan, published in June 2013, includes vision and mission statements. As part of the process for developing the interpretive master plan, a visioning meeting held in June 2016 provided additional insights into the

vision and mission (Appendix). The following vision, mission, and goals rely on both of these sources and also draw on statements from other Iowa Byways interpretive master plans.

Vision

A vision statement reflects the broad and sweeping aspirations that an organization has for its byway. It embodies the values of the byway's resources and its stakeholders.

A vision statement answers two fundamental questions:

1. What are the values or beliefs about the significance of this place that inform your work? Why should people visit?
2. What do you ultimately hope to accomplish through your efforts?

A vision statement related to interpretation for the byway can be found in the tint box at left.

Glacial Trail Byway Vision Statement

Surging glacial meltwaters carved deep into soft glacial drift to form the middle Little Sioux River valley. Today, steep, unplowed prairie-cloaked hills flank this meandering river and forested and farmed valley. Glacial Trail Scenic Byway showcases this unique landscape.

Nature, scenery, archaeology, and history intersect in the Glacial Trail Byway corridor, creating a **compelling experience for byway travelers**. This 36-mile corridor encompasses a landscape like no other in the region.

Through the collective efforts of the Glacial Trail Scenic Byway Committee and stakeholders in the byway corridor in implementing this Interpretive Master Plan, byway visitors will have meaningful, rewarding experiences that lead to increased visitation at byway attractions and economic development for byway communities.

Mission

The mission statement answers two questions:

1. How do you plan to work toward this broad vision?
2. For whose specific benefit does the organization exist?

Glacial Trail Byway Mission Statement

The Glacial Trail Scenic Byway committee and stakeholders will interpret the area's cultural and natural heritage; build awareness; and market the intrinsic natural, scenic, archaeological, and historic qualities of the byway to local, state, and national visitors.



Excellent prairies can be viewed along 430th Street, also called the Prairie Viewing Loop on the byway tear sheet map. This loop leads inside the byway loop just off County M12 or Highway 10.

Interpretive Goals and Actions

Goals support the vision and mission. They are ambitious, broad statements of desired conditions. The goals are meant to be translated into actions (programs and projects) that the byway organization, partners, and supporters will strive to implement.

Schmeckle Reserve Interpreters conducted an Interpretive Master Plan Visioning Meeting in June 2016 at the Prairie Heritage Center in Peterson. Fourteen Glacial Trail Scenic Byway board members, staff, and stakeholders attended.

At the meeting, Schmeckle Reserve Interpreters asked: “What is your vision of success for improving the visitor experience on your scenic byway?”

The responses to this question are grouped into interpretive goals with actions to achieve each goal.

Interpretive Goal 1

Develop effective interpretive media that guides visitors in their search for meaningful experiences on the byway.

Responses related to Goal 1:

- “Visitor center or kiosk in Peterson to orient people to byway”
- “Wayfinding signs to attractions along the byway”
- “More attractions specific to the byway, like pull-offs for scenic views or interpretation”
- “More interpretive signage”
- “Audiovisual apps using oral history”
- “Radio station interpretation”

Goal 1 Actions:

- Prioritize and seek funding for the interpretive media described in the Glacial Trail Interpretive Master Plan



An interpretive master plan visioning meeting was held with stakeholders in June 2016 at the Prairie Heritage Center near Peterson.

Interpretive Goal 2

Improve visitor services to ensure quality experiences for travelers.

Responses related to Goal 2:

- “More recreational trails along the byway”
- “More visitor amenities (lodging, gas, restaurants, restrooms) and more visible signs”
- “More or better canoe or kayak landing sites, with parking lots”
- “Gun and archery range”
- “Dog park”
- “Canoe and kayak rentals”
- “Collaboration of antique shops, artisans, and local food”
- “Farmers markets”
- “ATV trails”
- “Success when other organizations and communities want to expand the byway”

Goal 2 Actions:

- Develop and improve visitor services within the guidelines of the Glacial Trail Corridor Management Plan (Points 3-10, pp. 89-129 and Point 13, pp. 151-153)

Interpretive Goal 3

Develop marketing strategies to promote the byway and its attractions.

Responses related to Goal 3:

- “Marketing the byway to schools for field experiences”
- “Northwest Iowa Review partnering for marketing byway”
- “Increase in economic development”
- “Traveling exhibits: Bring people in multiple times”
- “Develop events to bring people in multiple times”

Goal 3 Actions:

- Implement the byway marketing recommendations described in the Glacial Trail Corridor Management Plan (Point 12, pp. 144-150) in the development of interpretive media



A sign welcomes travelers to Sutherland, just off the byway route.

REFERENCES

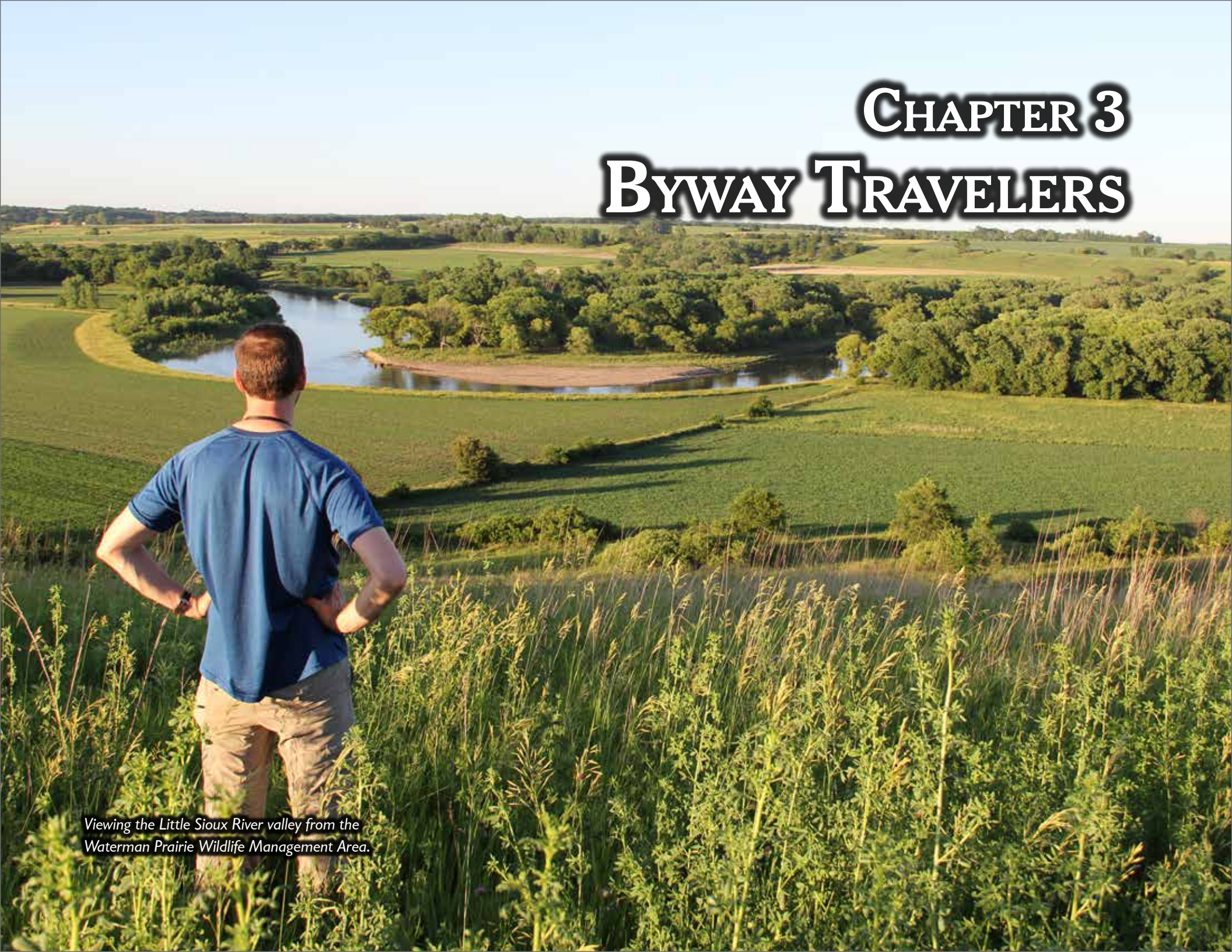
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- ▶ *Glacial Trail Scenic Byway Corridor Management Plan* (2013). Iowa Lakes Resource Conservation and Development.



Dog Creek Park south of Sutherland.

CHAPTER 3

BYWAY TRAVELERS



*Viewing the Little Sioux River valley from the
Waterman Prairie Wildlife Management Area.*



An angler finds success fishing on the Little Sioux River in Linn Grove Dam Park.

BYWAY TRAVELERS

The middle Little Sioux River encompassed by the Glacial Trail Scenic Byway is a place of scenic and natural beauty. There is no greater joy than to experience a pristine prairie in full bloom from a bluff-top overlooking the meandering Little Sioux River while listening to calling bobolinks, dickcissels, and meadowlarks.

Human history adds to the richness of the byway experience. Here, nature and scenery intersect with archaeology and history. Archaeological sites and museum collections offer tangible evidence of the Mill Creek people, who a millennium before, built earth-lodge villages and grew crops in terraced fields. In pioneer days, this is where Santee Dakota people interacted with settlers. The Inkpaduta Canoe Trail, Iowa Northern Border Brigade Fort Peterson Blockhouse, and historic farms, homes, and museums offer travelers connections to early Iowa history.

These intrinsic qualities are the essence of the Glacial Trail Scenic Byway. It is “old Iowa” at its best. Many residents and visitors would enjoy experiences that connect them to Iowa’s natural

and cultural history. The key tasks for byway leadership are to develop quality experiences along the byway and to market them to receptive audiences.

Prairie Heritage Center

Charlene Elyea, O’Brien County Conservation naturalist and a member of the byway board, shared insights about visitors to Prairie Heritage Center near Peterson, many of whom also tour the byway and its attractions.

Charlene reports more than 100,000 visits to the center since it opened 10 years ago, ranging from 12,521 to 13,781 people annually. Visitor logs document that people have come from all 50 states and 28 foreign countries. There is a 50-50 split between new and returning visitors. New visitors are most common in summer and during special events. Return visitors are most common at annual events and during the holidays to bring out-of-town guests.

People come with a variety of interests. For example, one German visitor was interested in experiencing America’s prairies. A Canadian visitor wanted to see how glaciers had shaped the landscape.

A Kansas visitor also expressed interest in glacial history and in comparing the experience to the Glacial Hills Scenic Byway in their home state. Some visitors are making a point to experience all of Iowa's byways. Many visitors come from throughout the region on weekend excursions.

School field trips and homeschool group excursions originate from an 11-county region. The byway experience complements science and social studies curriculum. Many students return with their parents and grandparents.

Bank-sponsored "travel club" tours, mystery tours, and other groups visit the center and byway. Some groups are local while others are from greater distances. These groups enjoy "step-on" guides such as local historian Fay Schall, who captivates her audiences with stories about people and places.

Many people also use the Prairie Heritage Center as a stop-off point for hunting, bird and wildlife watching, canoeing, and other outdoor activities.



Exhibits at the Prairie Heritage Center interpret the natural and cultural history of the region, including the bison that once freely roamed the landscape. A small herd of bison is kept on-site at the center.



Trails across from the Prairie Heritage Center at Hannibal Waterman Wildlife Area cross through a variety of habitats including prairies and oak savannas.

Sanford Museum

Sanford Museum and Planetarium, located in Cherokee about 12 miles from the byway loop, exhibits artifacts and interpretation that illuminate the archaeology and history themes of the route. The museum and the Prairie Heritage Center are the only two interpretive sites regularly staffed and both have free admission.

Sanford Museum attracts about 25,000 visitors a year. Megan Messerole, staff archaeologist, said that northwestern

Iowa schools and educational institutions are the primary target audiences.

Messerole, a byway board member, indicated that periodic byway tours have included Chan-ya-ta and Wittrock Mill Creek Culture sites with an interpreter stationed there. With newly acquired public access to Wittrock State Preserve, Messerole is seeking a grant to improve the interpretive media on this primary byway resource. Reciprocal marketing of the byway and Sanford Museum would benefit both institutions by enhancing awareness and increasing visitation.



Sanford Museum and Planetarium in Cherokee has exhibits that interpret the archaeological, geological, and natural history story of northwestern Iowa. The museum has 25,000 visitors a year.

InnSpiration Vines and Wines

Part of the Northwest Prairie Wine Trail, this winery attracts a clientele that most likely is unaware of the byway. Sheila Thomsen, co-owner of InnSpiration with her husband, Paul, said their former bed and breakfast home is now available only for weekly rentals. They host family reunions and weddings from spring through fall. The winery is open during these seasons, and they host live music every Friday night. Since the nearest wineries on the trail are more than an hour away, many visitors reserve the winery loft, which is available for one-night rental. This is a venue with potential for reciprocal marketing with the byway. Guests at the lodge and winery might enjoy experiencing the byway and its attractions.



InnSpiration Winery in Linn Grove also offers overnight lodging.

Visioning Meeting Visitor Insights

Participants in the Glacial Trail Scenic Byway Interpretive Master Plan Visioning Meeting provided this list when posed the question, “What unique audiences visit this byway?”

- Bank bus tours (seniors from out of state, Minnesota, going to multiple attractions)

- School bus tours (Prairie Heritage Center, old fort, one-room schools)
- Birders (including international, a corridor for hawk migration, warblers in spring, summer prairie species, bald eagles)
- Prairie enthusiasts
- Glacier/geology enthusiasts
- Archaeology enthusiasts (Mill Creek)
- Genealogy enthusiasts (historical societies)

- Grandparents and grandchildren
- Campers at county parks, not just local residents
- Art groups (especially nature-related artists)
- Home school groups
- Out-of-state hunters and anglers
- Nature enthusiasts
- Mushroom hunters
- People who are lost
- Wine enthusiasts (tour of wineries in northwest Iowa)
- Geocachers (Prairie Heritage Center and Dog Creek)
- Writers
- Byway enthusiasts
- River enthusiasts (canoeists, kayakers, snowmobiling)
- Musicians (music fests in area, Sheldon, Storm Lake, Cherokee)
- Youth, families



Brooke Creek Bridge, built in 1909, crosses a tributary of the Little Sioux River south of County C16, the southern stretch of the byway loop.

Iowa Welcome Center 2016 Visitor Survey Results		
	Okoboji Spirit	Sergeant Floyd
Summary		
Avg. Party Spending Per Day	\$711.80	\$382.01
Travelers with Iowa Residence	42.4%	10.5%
Travelers with Iowa Destination	85.3%	38.7%
Visitor Party Type and Size		
Family (adults)	25.3%	50.3%
Family (with children <18)	49.8%	27.1%
Individual/Friends	19.6%	18.1%
Average Party Size	2.8	2.5
Place of Residence		
Iowa	42.4%	10.5%
Minnesota	11.2%	5.0%
Nebraska	13.8%	2.09%
South Dakota	4.9%	3.5%
International	5.8%	8.5%
Purpose of Trip		
Vacation/Leisure	74.3%	65%
Visit Family/Friends	19.4%	23.5%
Interest Areas		
Arts, History & Culture	49.6%	73.4%
Scenic/Nature (birding, gardens, byways)	40.6%	48.2%
Family Fun	74.6%	41.7%
Food and Drink	47.8%	23.1%
Outdoor Adventure	43.8%	33.7%
Shopping	43.3%	12.6%

Iowa Welcome Center 2016 Visitor Survey

Visitor surveys conducted in 2016 at the Sergeant Floyd River Museum and Welcome Center in Sioux City and Okoboji Spirit Welcome Center in Arnolds Park provide insights into visitors and their interests, with potential relevance to marketing the Glacial Trail Scenic Byway. These centers primarily serve visitors from the four-state area who are visiting or recreating in northwestern Iowa.

Okoboji Spirit Welcome Center primarily serves visitors vacationing at the Iowa Lakes. This is reflected in the larger daily expenditure (resort stays), the larger number of families with children, and greater interest in “family fun.”

Visitors who stop at an Iowa Welcome Center tend to be older, affluent, and educated. Arts, history, and culture are their greatest areas of interest. However, there is a strong interest in nature, scenery, and outdoor recreation.

In years past, the Iowa Welcome Center Survey offered specific areas of interest as selections. The “Key Findings” for 2015 included the following data:

“Over half of the travelers were interested in history (57%). Other popular interest areas noted were scenic byways (53%), outdoor recreation (42%), food & drink (35%), festivals & events (32%), shopping (31%), agriculture (20%) and sports (10%).”

Travel Iowa 2016 Pre-Trip Planning Survey

The Iowa Tourism Office pre-trip survey is optional for those who order an Iowa Travel Guide online at traveliowa.com. Of those that ordered in 2016, 88.7 percent (17,103 people) responded to the survey: 4,803 respondents were Iowans and 5,496 respondents were from the surrounding states of Illinois, Kansas, Minnesota, Missouri, Nebraska, South Dakota, and Wisconsin.

Among respondents, top interest areas were:

- Scenic/Nature: 80.7 percent
- Arts, History, and Culture: 67.2 percent
- Outdoor Adventure: 62.4 percent

These surveys confirm the strong interest in scenic byways and the opportunity they offer to explore cultural and natural history.

Marketing the Byway

A section of the Glacial Trail Corridor Management Plan titled “Marketing the Byway and its Intrinsic Qualities” states that the byway is **“well equipped to serve eco-tourists, outdoor recreationists, and heritage tourists”** and that marketing efforts should target these audiences. These three categories encompass most byway visitors’ interests.

The CMP characterizes its marketing section as a “blueprint” for marketing the byway but emphasizes the need for a comprehensive marketing plan to “establish a budget, set fundraising goals, and target potential visitors.” According to the CMP, **“The biggest challenge facing the Byway Board will be to attract visitors to such a rural, off-the-beaten-path location.”**



Mark Bogenrief of Bogenrief Studios, a stained glass company in Sutherland, gives a tour of his business.



Travelers enjoy opportunities to explore prairies and engage in birdwatching and other outdoor activities.

CMP Marketing Recommendations

1. The byway board should form an alliance with the anchor communities of Spencer, Storm Lake, Primghar, and Cherokee (chambers of commerce, county conservation, and travel and tourism groups) to help promote the byway experience to travelers on or near the byway.
2. Develop cooperative advertising opportunities, new “getaway” ideas, and itineraries for group travel.
3. Target business travelers, casual visitors, and vacationers who are spending time in the four-county byway area throughout the year. Success will depend on partnerships with destination marketing organizations, event organizers, and hotels in each town, especially Spencer, Storm Lake, and Cherokee.
4. Establish a comprehensive website to aid trip planning. See pages 112-115.
5. Work to develop short getaway trips with a variety of activities, and provide authentic experiences.
6. Capitalize on the extended reach and exposure of the byway through the America’s Byway website (byways.org), the Iowa Byways site (iowabyways.org), the Iowa Tourism office (traveliowa.org), and the Western Iowa Tourism Region (visitwesterniowa.com).
7. Request reciprocal links with mycountyparks.com, county conservation sites, chambers of commerce, and area visitors bureaus in the four-county byway region.
8. Establish and maintain a Facebook page and other social media outlets to notify visitors (or potential visitors) of current and upcoming events, post visitor photos, and greatly expand awareness of the byway through postings by visitors. See page 116.
9. Develop a brochure and a comprehensive byway guide that captures the intrinsic qualities of the byway and uses the graphic design standards established by the Iowa Scenic Byways Sustainability Project. See pages 123-129.
10. Utilize the free services of Iowa Welcome Centers, county and city tourism offices, hotels, and local chamber of commerce offices to distribute brochures and byway guides.

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- ▶ Pine, B. J., & Gilmore, J. H. (1999). *The Experience Economy: Work is Theatre and Every Business a Stage*. Harvard Business Press.
- ▶ Travel Iowa 2016 Trip Planning Survey: Iowa Tourism Office. Retrieved from www.traveliowa.com/industry-partners/research/trip-planning/

Personal Communication:

- ▶ Charlene Elyea, naturalist and assistant director, Prairie Heritage Center, O'Brien County Conservation.
- ▶ Megan Messerole, archaeologist, Sanford Museum and Planetarium.
- ▶ Sheila Thomsen, InnSpiration Vines and Wines, Linn Grove.



A wayside exhibit interprets the prairies along County M12 on the western stretch of the byway.

CHAPTER 4

INTERPRETIVE RESOURCES



A small herd of bison roams in an enclosure at Prairie Heritage Center. Bison are the symbol of the byway.

INTERPRETIVE RESOURCES

This inventory of interpretive resources documents the natural and cultural attractions along the Glacial Trail Scenic Byway. It serves as the foundation for the interpretive themes and messages (Chapter 5) that connect the tangible resources with their intangible meanings. Interpretive media are then developed from these themes and messages to engage visitors in meaningful experiences along the byway (Chapter 6).

The interpretive planning team sought input during a leadership visioning session in July 2016 by posing the following questions:

- What are the important attractions along this byway that visitors should experience?
- What compelling stories and messages make this byway unique?

The planning team used results from this meeting, byway publications, and other research to guide exploration of the byway and to experience each resource systematically. The team interviewed staff members from various attractions and knowledgeable citizens to gain further insight regarding the resources.

Resource Categories

The U.S. Department of Transportation Scenic Byways Program identifies six intrinsic qualities that define and describe a scenic byway. This plan lists each core interpretive resource in these categories, combining Scenic and Natural and Historic and Archaeological. Core resources are located on or near the byway and offer travelers the opportunity to explore and experience the intrinsic qualities of the Glacial Trail area. Intrinsic quality categories are:

Scenic and Natural

Resources related to geology, nature, or overlooks with scenic views.

Recreational

Resources for camping, picnicking, hiking, fishing, or paddling.

Historic and Archaeological

Resources with artifacts or other tangible evidence of prehistoric or historic people and events.

Cultural

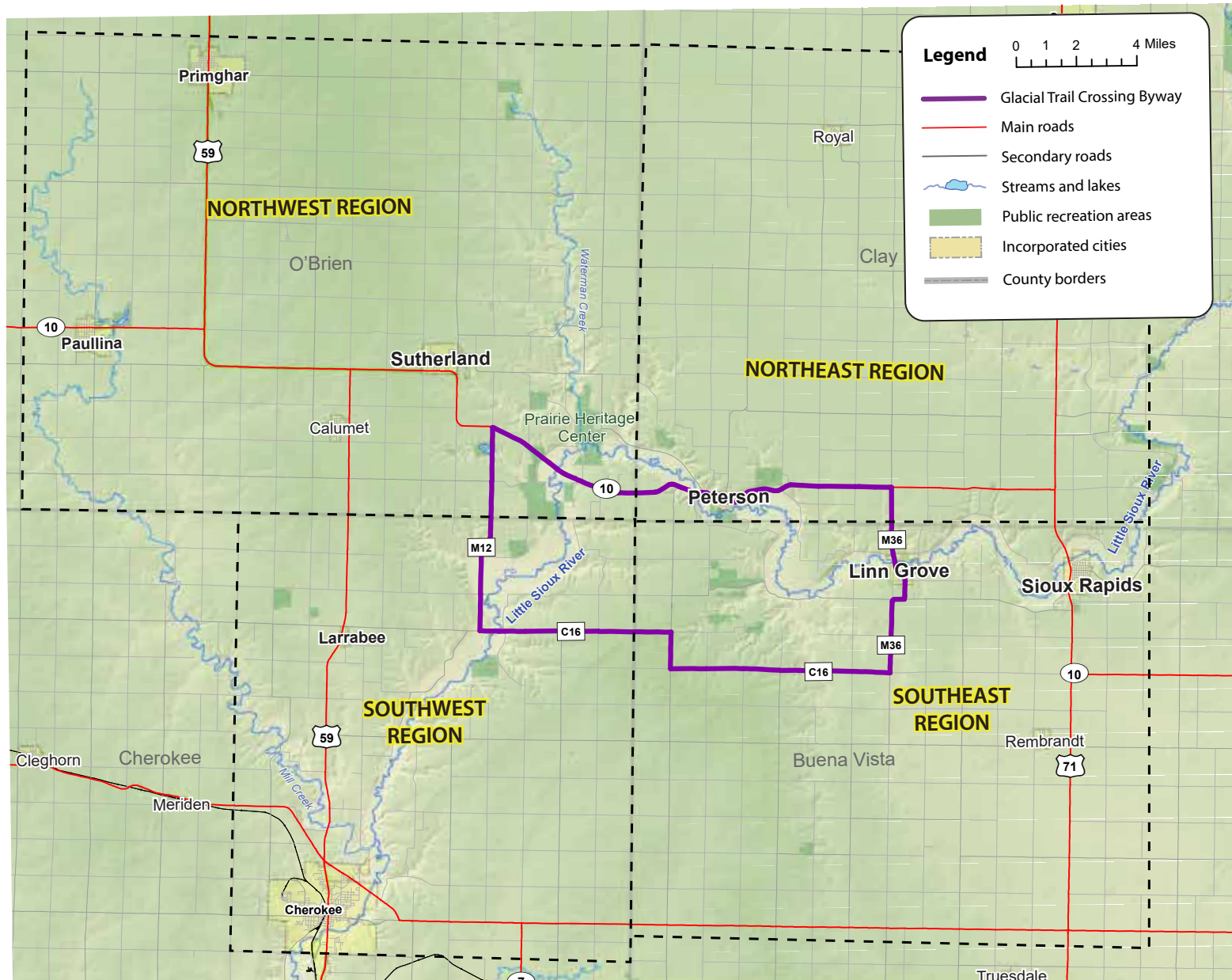
Resources that provide insight into the Glacial Trail culture and sense of place.

Glacial Trail Regions

Since the byway corridor includes part of four counties, this plan splits the byway's diverse resources into four regions based on the county lines for better organization. The regions are:

- **Northwest Region:** Core byway resources at Prairie Heritage Center and near Sutherland, Paullina, and Primghar.
- **Northeast Region:** Resources in the Peterson area.
- **Southeast Region:** Resources near Linn Grove.
- **Southwest Region:** Resources near Larrabee and Cherokee.

GLACIAL TRAIL SCENIC BYWAY REGIONS MAP





Downtown Sutherland

A view of the Little Sioux River valley from the Prairie Heritage Center.



NORTHWEST REGION

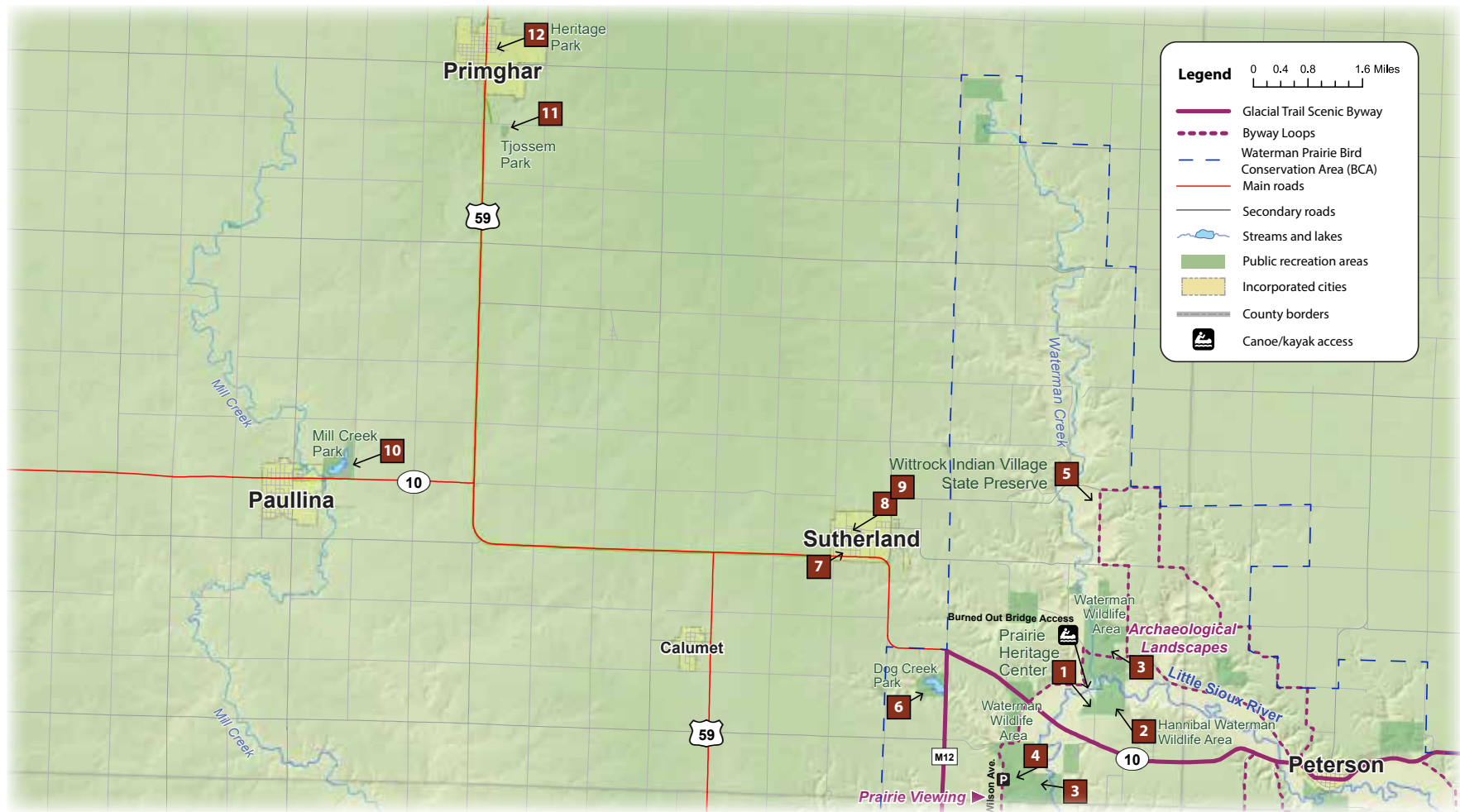
O'Brien County

As the Civil War broke out, O'Brien County was born on the empty, wild prairie of northwestern Iowa. Its lone settler, Hannibal Waterman, had arrived with his family in 1856 and built a log cabin near the Little Sioux River about five miles from the Peterson settlement. Their peaceful existence was permanently interrupted in 1860 when a small party of "outsiders" arrived with the sole purpose of "organizing" a county government. Waterman was given several offices and a log "courthouse" was built on his property, but never used as such. This arrangement was short-lived, as Waterman became

aware of the group's dishonesty and resigned. The "officials" then purchased 40 acres to the southeast, platted a county seat they named O'Brien and moved the courthouse.

Real settlement of the county began in the mid to late 1860s and increased when the Sioux City-St. Paul Railroad founded Sheldon on the county's western border in 1872. The idea of county government located in the exact center of the territory was conceived by a group of O'Brien businessmen and public officials. Primghar was created by arranging the first letter of the eight founders' last names. Voters approved the measure at the fall general election in 1872, and many of O'Brien's businesses and residents moved to the new county seat town beginning in the spring of 1873.

O'Brien's fate was sealed when the Northwestern Railroad created Sutherland in 1882. Whatever remained in O'Brien moved to the new railroad town or was abandoned; the streets were plowed under and all that remains of that early enterprise is a sign marking the site along Highway 10.



- | | | | |
|---|---|-------------------------------------|---------------------------|
| 1 Prairie Heritage Center | 4 Waterman Prairie Hanging Valley and Dutch Fred's Grave | 7 Bogenrief Studios | 10 Mill Creek Park |
| 2 Hannibal Waterman Wildlife Area | 5 Wittrock Indian Village State Preserve | 8 Pear Tree House | 11 Tjossem Park |
| 3 Waterman Prairie Wildlife Management Area Complex/ Waterman Prairie Bird Conservation Area | 6 Dog Creek Park | 9 General N.B. Baker Library | 12 Heritage Park |






The exhibits interpret bison, prairies, and other natural, historical, and archaeological aspects of the region.

1 Prairie Heritage Center

Prairie Heritage Center is located in the southeastern corner of O'Brien County, near the corners of Buena Vista, Cherokee, and Clay counties. It is the primary contact point for visitors to the Glacial Trail Scenic Byway, providing interpretation of the area's natural, cultural, and archaeological history. The center, operated by O'Brien County Conservation, opened in 2006 to interpret the prairie landscape of northwestern Iowa. The visitor center is open Wednesdays through Sundays and features exhibits about prairie ecology, the Mill Creek Indian Culture, and O'Brien County's settlers. Staff naturalists offer environmental education programs for youth and the public. The center's icon is the bison, and a small herd is fenced on the property. A replica pioneer wagon pulled by oxen statues invites visitors to climb inside and learn about the first settlers in the area. The center overlooks the Little Sioux River Valley and a patchwork of grassland and forested hills and valleys. An access point offers water-based recreation on the Little Sioux River. Walking trails loop through restored grassland and oak savanna.



Hannibal Waterman Wildlife Area

2 **Hannibal Waterman Wildlife Area**   

The wildlife area, across the road from the visitor center, is the site of the first settler in O'Brien County in 1856. Trails circle through the property, passing the Hannibal Waterman family cemetery and a historic marker placed by the O'Brien County Daughters of the American Revolution. In 1857, Santee Sioux Chief Inkpaduta and his band stopped at Hannibal Waterman's cabin, gathering food and supplies and then moving upriver.

3 **Waterman Prairie Wildlife Management Area Complex and Waterman Prairie Bird Conservation Area**  

Extending north along Waterman Creek from the junction with the Little Sioux River, and south of Highway 10 along on the west side of the river, the Waterman Prairie Wildlife Area Complex preserves 1,800 acres of oak savannas and pristine prairies. The O'Brien County Conservation Board, Iowa Department of Natural Resources, and The Nature Conservancy manage the area.

Waterman Prairie Wildlife Management Area Complex



A core area of 4,000 acres of public land, including the Waterman Prairie, is at the heart of the **Waterman Prairie Bird Conservation Area**. This public land preserves native prairie and oak savanna. The BCA encompasses a total of 69,000 acres in the four-county area along Waterman Creek and the Little Sioux River. Many birds on Iowa's list of "Species of Greatest Conservation Need" nest in the BCA or use the area as a wintering grounds or as a migratory stopover. Conservationists have documented several rare western birds.

Prairie birds such as bobolinks, meadowlarks, and dickcissels are summer residents. The valleys are an important flyway for raptors, with as many as 400 a day observed migrating in September. Spring-fed Waterman Creek creates open water at the junction with the Little Sioux River, attracting bald eagles during winter.



Meadowlarks nest in the Bird Conservation Area.

Courtesy of O'Brien County Conservation



Hanging Valley, Waterman Prairie

4 Waterman Prairie Hanging Valley and Dutch Fred's Grave

The section of Waterman Prairie south of Highway 10 offers an accessible prairie experience for byway visitors. A parking lot on Wilson Avenue, 1½ miles south of Highway 10, leads to a trail that meanders through prairie-covered ridges with spectacular vistas of the Little Sioux River valley. The Iowa Department of Natural Resources is restoring the prairie to its original plant community.

The trail passes the **Hanging Valley**, a distinctive geologic feature resulting from the rapid outflow of Glacial Lake Spencer during the Pleistocene era. This is a higher valley of the Little Sioux River abandoned about 13,000 years ago when rushing meltwater changed the course of the river and cut down to the present valley floor.

A grave marker for **Dutch Fred** near the trail identifies the bluff-top burial site of Frederick Feldman on the 80-acre homestead he established in 1868.



Recently acquired land beyond this gate will provide public access to Wittrock State Preserve.

5 Wittrock Indian Village State Preserve



Wittrock Indian Village on Waterman Creek, just northeast of Sutherland, is a model depiction of late prehistoric Mill Creek culture. This 6-acre site features the buried remains of a fortified village occupied by Indians of the Mill Creek Culture between the years 1200 and 1300. Located on a low terrace of Waterman Creek, the site included 20 rectangular earth lodges that archaeologists have identified. A wide ditch and solid stockade wall protected the village from attack. The village has never been affected by construction or cultivation. The Mill Creek people hunted bison and grew corn and other produce in the rich creek bottoms. The site is a National Historic Landmark and an Archaeological State Preserve.

Additional Non-Public Archaeological Sites

Double Ditch Site



The Double Ditch Site near Waterman Creek is the northernmost recorded of three dozen similar Mill Creek Culture villages along the Little Sioux and Big Sioux Rivers. The village dates to A.D. 1100-1250. The name Double Ditch refers to two 8-foot-wide depressions in the ground outlining the settlement. Circular depressions mark the location of former houses. Like Wittrock Indian Village, it is one of few known unplowed and intact Mill Creek village sites in Iowa. Grazed pastures preserved most of the village. Double Ditch is on private land with no public access.

Litka Ridged Field Site



The Litka Ridged Field, an archaeologically significant Mill Creek Culture farm field, is the only documented site of its kind in Iowa or on the eastern Plains. The site, within an area of about 5 acres, includes a series of 15 ridges across a gently sloping terrace above Waterman Creek. The ridges are about 80 feet long and 3 to 6 feet wide, each separated by a shallow ditch measuring 6 feet wide or more. The mounded soil improved fertility for crops and slowed erosion. In addition to the ridges, the site includes other field types, including flats or blocks and smaller garden plots. The whole area is enclosed by a raised border. The site is on private land, with no public access.



Byway visitors can follow the Archaeological Landscapes loop along Waterman Creek to view the region where Mill Creek Culture people lived and farmed.

Dog Creek Park




Sutherland

Sutherland, population 649, is just off the northwestern corner of the byway loop in O'Brien County. It came into existence with the building of the Chicago and Northwestern Railroad. The town, platted in 1882, was named for the Duke of Sutherland, "who was, about the time the town site was located, a guest of the officials of the railroad company, and who were sufficiently in love with his royal highness, to name their town site after him," according to *The History of O'Brien County, Iowa* (1897). Many residents of Old O'Brien moved to this new town.

6 Dog Creek Park

O'Brien County Conservation manages this park near Sutherland. It offers 29 modern campsites, two camping cabins, and two modern cabins in grain bins that opened in 2017. Visitors can swim and fish in the lake.

Bogenrief Studios

7  Mark Bogenrief opened a stained glass studio in the former South O'Brien Middle School in Sutherland. The school's 30,000 square feet of classrooms, gymnasium, and hallways are filled with workspace and display areas. Bogenrief and his late wife, Jeanne, started the



business in 1978 when workers at the meatpacking plant where they worked went on strike. The studio makes large windows, domes, chandeliers, and lamps. Bogenrief also creates custom works of art for private collectors. Tours are available by request.



8 Pear Tree House

This historic home in Sutherland is a community museum and houses historical documents and other memorabilia. It is open for special events during the summer.

9 General N.B. Baker Library

William Houston Woods and his wife, Roma Wheeler Woods, of Old O'Brien founded the General N.B. Baker Library Association in 1874 in their log cabin. Residents came from miles around to borrow books and magazines to help them pass the long winters. Gen. N.B. Baker, formerly governor of New Hampshire, moved to Iowa in 1856. He was instrumental in the early growth of the library, which is now located in a former school.



Near the Byway

Paullina

10 Mill Creek Park

Mill Creek, an O'Brien County Conservation park, is a half-mile east of Paullina on Highway 10. The property includes a 48-site campground, four camping cabins, an accessible fishing

pier, and swimming beach. A paved biking trail connects the park to Paullina, and a hiking trail leads visitors around the lake. Development began in 1935 with the purchase of land for a state park. A WPA work crew built a dam on Mill Creek and a lodge. Mill Creek State Park was transferred to the O'Brien County Conservation Board in 1975.

Primghar

Primghar was created on paper months before the first building dotted its prairie site. Located in the center of O'Brien County by a vote of the citizens in 1872, the new county seat buzzed in anticipation of the McGregor Railroad's arrival from the east, which never materialized. Over a decade later, Primghar was in serious trouble. Bypassed by two railroads, the village population had dwindled to 150. Attempts were made to make Sheldon the county seat on two separate occasions; at another time, the citizens of Sanborn, under the cover of darkness, raided the courthouse property. However, Primghar prevailed and eventually prosperity followed the arrival of the Illinois Central in 1887. O'Brien County's beautiful Bedford stone courthouse celebrated a century of service in 2017.



11 Tjossem Park

Tjossem Park, an O'Brien County Conservation property, is located south of Primghar. It offers campsites, hiking trails that connect to Primghar, and fishing opportunities.



12 Heritage Park

This historic village in Primghar features a log cabin, historic home, hotel, bank, Philby Church, and Center Township No. 3 School. The buildings feature artifacts, exhibits, and research materials. The O'Brien County Historical Society manages the park.



Glacial Trail Scenic Byway enters Peterson on Highway 10.



Peterson's entrance sign welcomes travelers on Highway 10.

NORTHEAST REGION

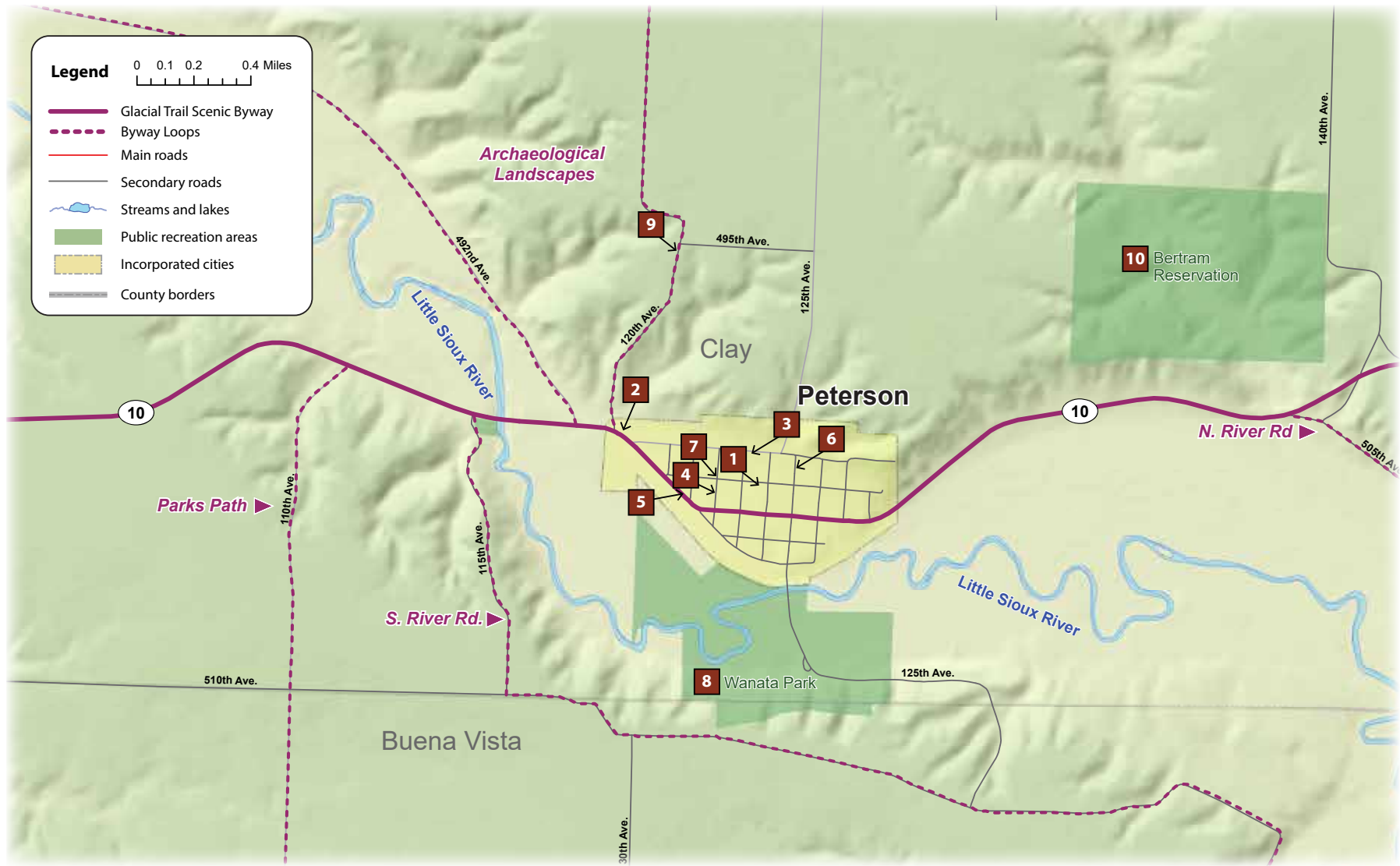
Peterson, Clay County

Peterson in southwestern Clay County is one of the major communities on the byway. It has a population of 334. The town began in April 1856 when brothers J.A. (Gust) and Jacob Kirchner and Ambrose Mead arrived at the Little Sioux River in search of farmland. Seeing fertile land and the potential for waterpower, they picked out cabin sites and planted gardens. Gust returned to upstate New York, returning in the fall with supplies, his parents, and 10 siblings. He constructed a sawmill on the river, to which newcomers brought timbers to be cut into lumber. Clay County's first settlers became the nucleus of the town of Peterson. After the Indian conflicts of 1857, they banded together for protection. In 1862, a fort was built in Peterson as a defense in the Dakota Conflict of 1862, but the fort was never attacked. The fort's blockhouse still stands near its original location in town. The county seat started in Peterson in 1860 but was moved to Spencer in 1871.



1 Fort Peterson Blockhouse

Fort Peterson, one of several built in 1862-63 in response to the Dakota Conflict in Minnesota, was garrisoned by the Iowa Northern Border Brigade. The brigade was charged with protecting Iowa's northwestern settlements from loss of life and property. The triangular fort was abandoned when the threat of Indian attacks did not materialize. The defensive blockhouse and a plaque mark the site of the fort. The blockhouse is the only remaining vestige of the Iowa Northern Border Brigade.



1 Fort Peterson Blockhouse

2 Jacob Kirchner Memorial Park

3 Jim's History Barn

4 McGee Gallery and Framing

5 Kirchner French Memorial Library

6 French Memorial Museum

7 Boarding House

8 Wanata State Park

9 Phillip Kirchner Log Cabin

10 Bertram Reservation



2 Jacob Kirchner Memorial Park

Peterson Heritage, a nonprofit organization founded in 1971 to preserve and maintain historical sites in Peterson, established this park for that purpose. The park includes a playground, veterans' memorial, the Machinery Museum, Christian Kirchner House, J.A. (Gust) Kirchner House, and Rock Forest School.

Kirchner Farm Machinery Museum

The Kirchner Farm Machinery Museum houses antique farm equipment including a covered wagon that trekked to Yellowstone Park and back in 1898, a shepherd's wagon, a fence making machine, and more. The museum is open by appointment.



Kirchner Farm Machinery Museum



J.A. Kirchner Home

J.A. Kirchner Home

J.A. (Gust) Kirchner built this Italiante-style, two-story home in 1875. It includes period furniture.

Christian Kirchner Home

Built in 1867, this Dutch Colonial home was the first frame house in Clay County. It still stands at its original location. Descendants deeded this home of Christian and Magdalene Kirchner, parents of J.A. (Gust) and Jacob Kirchner, to the city in 1971. Peterson Heritage restored and furnished the home. It is open by appointment.



Christian Kirchner Home



Rock Forest School

Rock Forest School


Built in 1868, Rock Forest was one of the first frame schoolhouses in Clay County. It was originally located in the northwest quarter of Peterson Township and was used until 1918. The building was moved to the park in 1963 and restored by the Peterson Lions Club. It is open for school-group tours, special occasions, and by request.



3 Jim's History Barn 

A collector since childhood, Jim Hass bought a 1928 barn in Spencer and had it moved to Peterson to display his collections. Included are Native American artifacts, war memorabilia, local history items, and curiosities of all kinds. Tours available by appointment.



4 McGee Gallery and Framing 

Iowa artist Barbara McGee's gallery in Peterson displays her work and that of other Iowa artists, including byway landscape paintings. McGee's studio connected to the gallery gives visitors an opportunity see new works in development.


5 Kirchner French Memorial Library 

In 1925, Lena Kirchner French willed a farm west of Peterson to provide funds for the construction of a library. The structure was built in 1937 with assistance from the Works Progress Administration. French, a member of the first family to settle in Peterson, wanted people of all ages to be exposed to the joy of reading. The library is still in use today.



Kirchner French Memorial Library



6 French Memorial Museum 

The museum contains the life-long collections of Doris French. It includes more than 200 antique dolls dressed in the times they were made, doll accessories, antique baby furniture and toys, painted china, lamps, and quilts. It is open by appointment.



7 Boarding House  

This 1882 boarding house is home to RePeterson's, a resale shop offering new, handmade, and vintage items.



A Civilian Conservation Corps crew constructed the Wanata State Park shelter in 1934.

8 Wanata State Park

In 1925, the Iowa Conservation Board, Peterson Izaak Walton League chapter, and Dr. E.W. Spaulding from Peterson began the effort to preserve forestland south of the Little Sioux River at Peterson. Once the land was acquired, a Civilian Conservation Corps company began developing the park by planting trees and building recreation facilities. The stone picnic shelter built by the CCC is listed on the National Register of Historic Places. The park was dedicated in 1934 as Wanata Preserve (also called Peterson State Park). In 2007

the Iowa Natural Resource Commission transferred management of the property to the Clay County Conservation Board. The park features trails, a picnic area, and river access.

9 Philip Kirchner Log Cabin

The Philip Kirchner Log Cabin, built in 1867, still sits on private property on its original site one mile northwest of Peterson. Philip was a son of Christian and Magdalene and brother of Gust and Jacob Kirchner. Philip and his wife, Anna, lived in the cabin until their frame house was completed in 1882. The farm



Philip Kirchner Log Cabin

buildings include a large barn, built in 1890, which features a “widow’s walk” cupola. Besides the unique feature of the widow’s walk, this is the largest barn in Clay County.

10 Bertram Reservation

This 240-acre Clay County Conservation area features hiking and equestrian trails through oak savanna and prairie. Recreation opportunities include winter sports and hunting. The site, which used to be a Boy Scout camp, is located two miles northeast of Peterson.

Courtesy of Clay County Conservation



Bertram Reservation

SOUTHEAST REGION

Linn Grove, Buena Vista County

Linn Grove, population 154, is in Buena Vista County on the eastern side of the byway loop. Surveyors who camped on the Little Sioux in 1855 named the grove for the many linden trees. The town began in 1866 when miller Moses Sweet constructed a dam and gristmill on the Little Sioux River. In 1881, the Chicago and Northwestern Railroad built a line through the northern part of Buena Vista County and established a station and depot in Linn Grove. The railroad spurred development, and soon several businesses were established.

1 InnSpiration Vines and Wines

Paul and Sheila Thomsen opened InnSpiration Retreat in 2005 as a bed and breakfast, added a vineyard in 2008, and



InnSpiration Vines and Wines

opened a winery in 2011. Rooms for rent have replaced the bed-and-breakfast. The winery is open weekends.



2 Linn Grove Dam Park

This 12-acre park is just off the byway on both sides of the river. It serves fishers and boaters on the Little Sioux River. The low-head dam is a popular fishing spot, and a boat ramp provides river access. A boat shop is open seasonally, offering canoe rentals. Primitive and modern camping, modern restrooms and showers, and playground equipment are provided.

3 Dr. Lois Tiffany Prairie

This 80-acre restored and virgin prairie is owned by The Nature Conservancy and is dedicated in honor of Dr. Lois Tiffany, a former Iowa State University professor who taught mycology and field botany courses. The main access is on the corner of North River Road /430th St and 60th Ave, where the dedication stone is. The best prairie remnant is in the middle of the preserve and is well worth the hike.

4 Nelson Reserve

The 150-acre Nelson Reserve along 440th Street showcases diverse prairie of native grasses and wildflowers. A hike to the top of the tallest hill offers a commanding view of the Little Sioux River Valley and of nearly unbroken grassland as far as the eye can see. The Nature Conservancy employs conservation grazing as a management practice. There are no designated trails, but visitors can wander the prairie and oak woodland when cattle are not present (cattle are present May 15-July 1).



A shelter at Buena Vista County Conservation Park

5 Buena Vista County Conservation Park  

This 308-acre park in the center of the byway loop on the Parks Path is the main recreation area for Buena Vista County Conservation. It is a core site within the Waterman Creek Bird Conservation Area with bur oak savanna, restored prairie, and a meandering stream. Camping, shelters, and a modern cabin attract visitors who enjoy the trails, arboretum, and wildflower plantings.

6 Brown's Prairie Preserve  

This 188-acre prairie owned by The Nature Conservancy is part of one of the largest complexes of remnant prairie left in Iowa. It was historically pastured but much of the native grass has survived. A spring-fed stream meanders through the property.

Brooke Creek Bridge




7 Brooke Creek Bridge 

This bridge over Brooke Creek, a tributary of the Little Sioux River, was built in 1909. It was listed on the National Register of Historic Places because of its historic architecture and construction. The bridge is accessible from an unmaintained gravel road and is closed to traffic.

Courtesy of The Nature Conservancy



Brown's Prairie Preserve

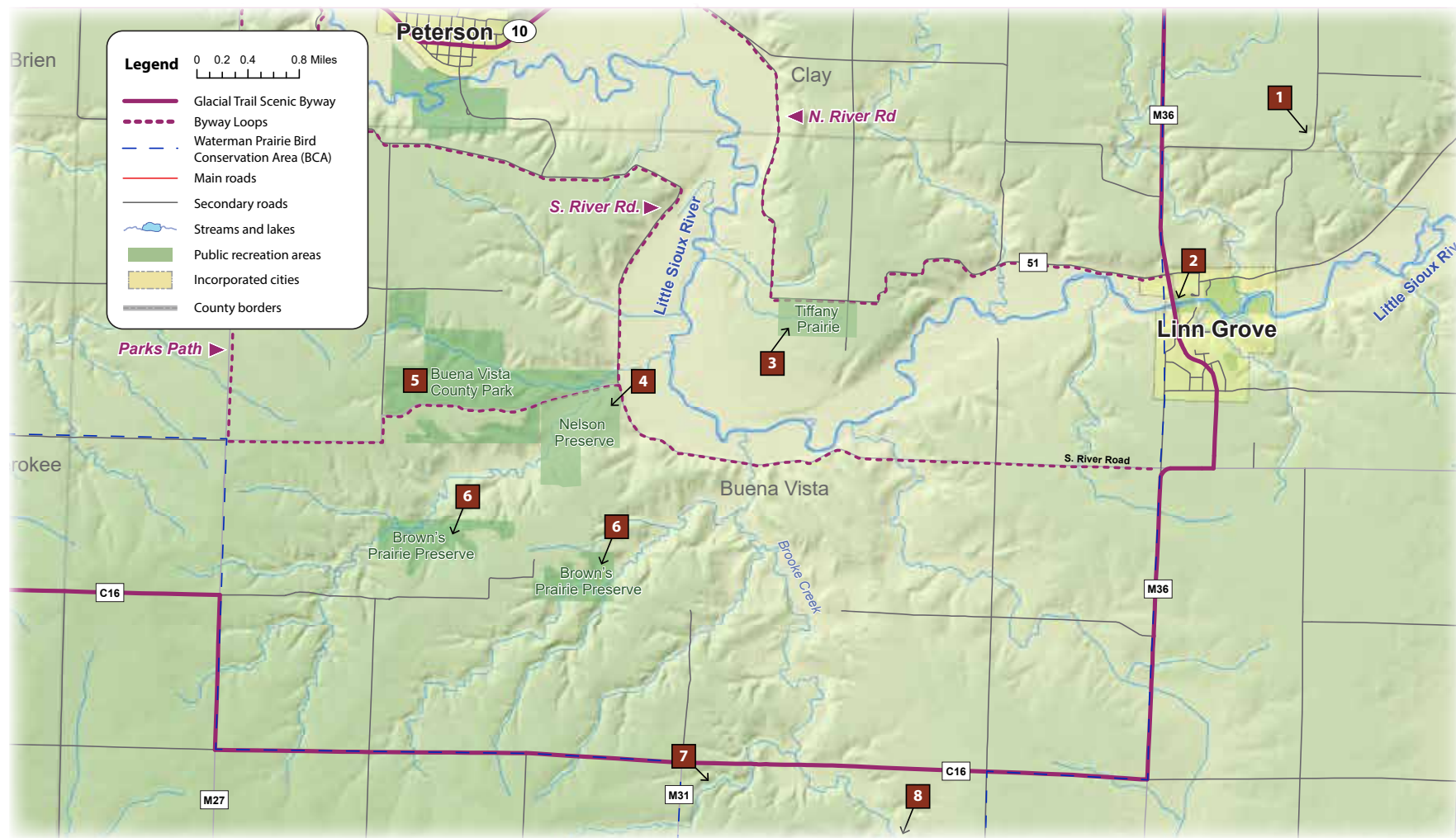
8 Chan-Ya-Ta Site 

This Mill Creek Culture village site is located near Linn Grove about a half-mile west of Brooke Creek near its confluence with the Little Sioux River. Archaeologists have noted at least 15 large depressions from earth lodges and signs of a possible fortification ditch. It is listed on the National Register of Historic Places and is located on private land, with permission required for access.

Courtesy of Sanford Museum



A group tours the Chan-Ya-Ta site during an archaeological program.



1 InnSpiration Vines and Wines

3 Dr. Lois Tiffany Prairie

5 Buena Vista County Conservation Park

7 Brooke Creek Bridge

2 Linn Grove Dam Park

4 Nelson Reserve

6 Brown's Prairie Preserve

8 Chan-Ya-Ta Site



Glacial Trail Scenic Byway travels through scenic northeastern Cherokee County.

SOUTHWEST REGION

Cherokee County

The southwestern corner of the byway loop—along County Roads M12 and C16—passes through the northeastern corner of Cherokee County. Cherokee County was among several counties created in 1851 in newly surveyed northwestern Iowa. The state Legislature named the county after the Cherokee Native Americans of the southern U.S. In 1856, Robert Perry was the county's first white settler, followed soon by members of the Milford, Massachusetts Emigration Company. New England families were drawn to create a colony in the fertile

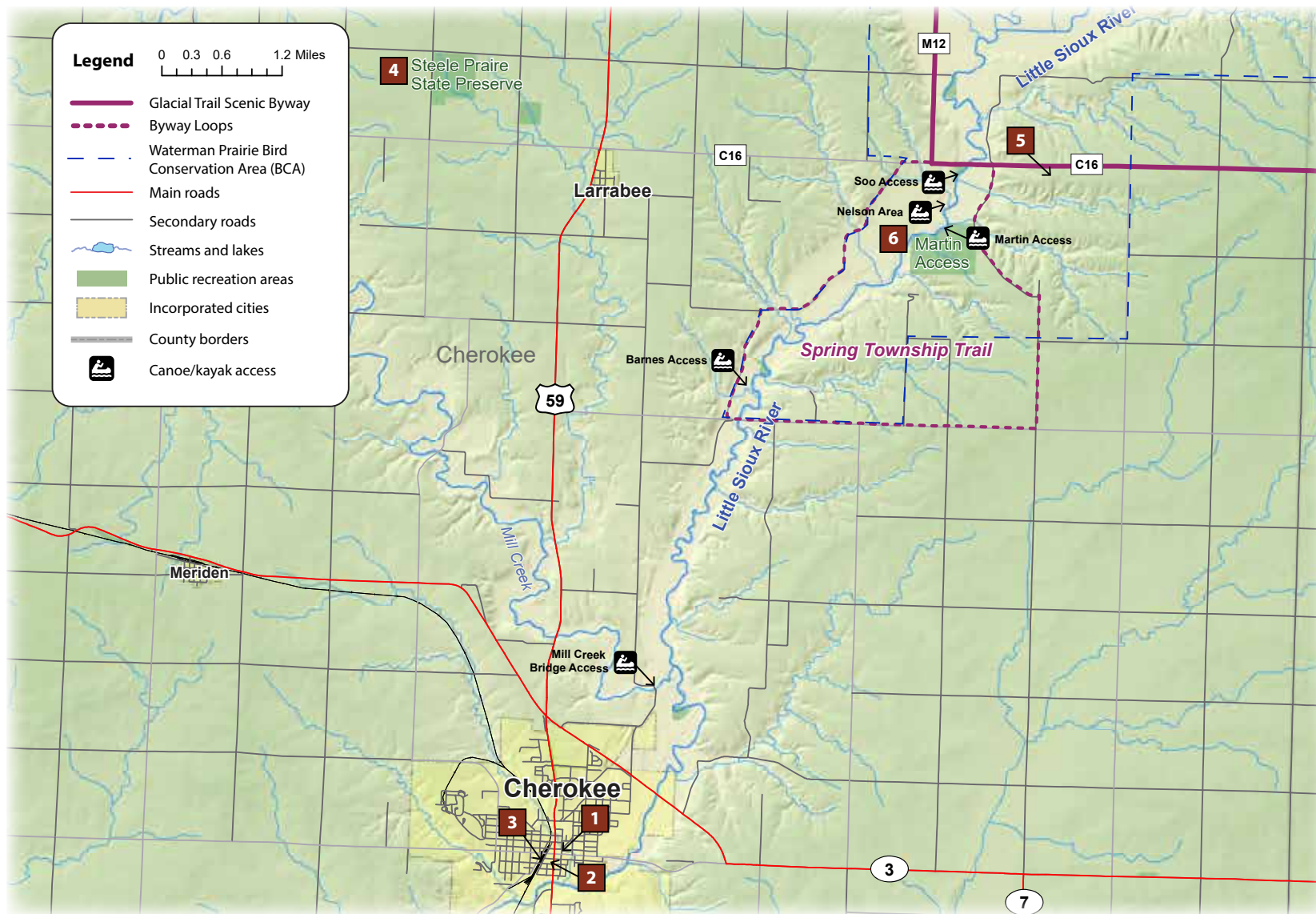
valley of the Little Sioux River. The county seat, the city of Cherokee, was founded in 1857.

1 Sanford Museum and Planetarium

Sanford Museum in Cherokee opened in 1951 to offer exhibits and activities about archaeology, history, geology, astronomy, natural history, and paleontology. Exhibits interpret prehistoric northwestern Iowa, featuring the Mill Creek Culture (using artifacts such as pottery, tools, and artwork), and the history of Cherokee. The museum also offers planetarium shows. The facility is open daily and admission is free.



Prehistoric artifacts are on display at the Sanford Museum in Cherokee.



- | | | |
|---|--|------------------------|
| 1 Sanford Museum and Planetarium | 3 Cherokee Depot | 5 Barnes Ranch |
| 2 Cherokee Library | 4 Steele Prairie State Preserve | 6 Martin Access |



Cherokee Depot



Cherokee Library

2 Cherokee Library

Cherokee's public library was established in 1886 by the Cherokee Ladies Library Association and was housed in the YMCA and other shared facilities. In 1903, the Carnegie Foundation awarded \$10,000 to the city to build a library. The foundation later awarded an additional \$2,000, and by 1905 the building was finished. The community's library is still in use and is listed on the National Register of Historic Places.

3 Cherokee Depot

Cherokee served as a hub for the Illinois Central rail line. The Illinois Central passenger depot, built in 1896, was used as a passenger station until 1971 and as a freight station until 1982, when the building was vacated. The rail yard complex was listed on the National Register of Historic Places in 1990. A nonprofit community group purchased the depot complex in 1991 and maintains it. It is open by appointment.

4 Steele Prairie State Preserve

This 200-acre tallgrass prairie, divided into two tracts of 160 acres and 40 acres near Larrabee, is one of the largest mesic prairies in Iowa. The Steele family had used it as a hayfield since 1880. Dr. Ada Hayden, Iowa State University botanist and advocate for prairie preservation, recommended its protection after she visited the site in 1945. The Nature Conservancy and Iowa Department of Natural Resources purchased the site in 1986. The DNR dedicated it as a biological and geological state preserve in 1987. The area is managed by Cherokee County Conservation Board.



Steele Prairie State Preserve

5 Barnes Ranch

Barnes Ranch, located along the southern stretch of the byway on County C16 in Cherokee County, is a livestock contractor for as many as 50 rodeos a year across the country, including the Wrangler National Finals Rodeo. Bob Barnes started the family business in 1950, providing bulls and horses for Professional Rodeo Cowboy Association events. While the ranch is not open to the public, rodeo fans will enjoy traveling past this landmark. Their stock is also featured at the Cherokee PRCA Rodeo each year the weekend after Memorial Day.

6 Martin Access

This 300-acre Cherokee County Conservation Board property is in a scenic valley of the Little Sioux River off County C16 near Larrabee. The park offers access to the Inkpaduta Canoe Trail (see pages 48-49). Additional amenities include modern and primitive campsites and camping cabins. Recreational opportunities include hiking, canoeing, and birding in oak woodlands, prairie remnants, and oak savannah.



Martin Access off County C16 provides camping and access to the Little Sioux River.

Courtesy of Barnes PRCA Rodeo



Contestants arrive at the Cherokee PRCA Rodeo. Barnes Ranch near Peterson provides livestock for this annual event as well as rodeos across the country.



Canoeists and kayakers can access the Inkpaduta Canoe Trail at Linn Grove Dam Park in Linn Grove. Access points are located throughout O'Brien, Clay, Buena Vista, and Cherokee counties.

INKPADUTA CANOE TRAIL

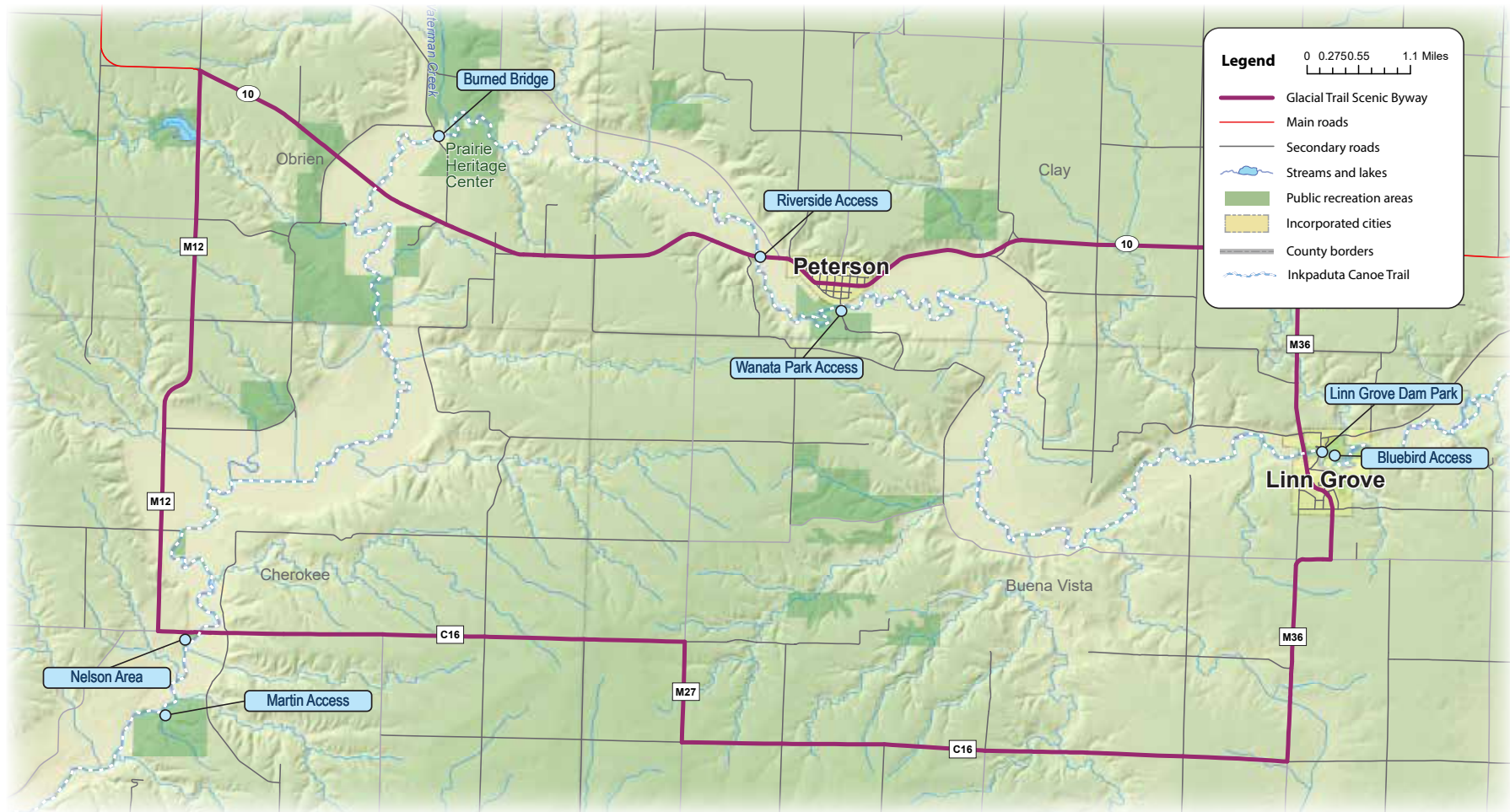
The Inkpaduta Canoe Trail is named for the Dakota leader who traveled up the Little Sioux River in 1857, before the Spirit Lake Massacre. The canoe trail runs 134 miles from Spencer in Clay County to Smithland in Woodbury County and allows paddlers to explore the glacial hills and plains of the region. Remnant prairies, wooded ridges, and high bluffs dominate the landscape along the slow-moving stream.

Paddlers and boaters can choose from multiple access points through the Glacial Trail Scenic Byway between Sioux Rapids and Cherokee.



The river can be accessed from county conservation properties, including Cherokee County's Martin Access.

INKPADUTA CANOE TRAIL MAP



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CHAPTER 5

THEMES AND MESSAGES

A thunderstorm moves in along the rolling landscape on County M12, the western stretch of the byway loop.



The Little Sioux River and the history of settlement along it connects many of the stories of the Glacial Trail Scenic Byway.

THEMES AND MESSAGES

An interpretive theme creates a framework for planning and places resources and events into meaningful contexts for visitors. Themes are the important ideas that organize the messages we want to communicate about the Glacial Trail byway region. Once these important concepts are identified, the most appropriate sites, resources, and stories are selected to illustrate them.

A theme statement, ideally stated in one succinct sentence, should contain **universal concepts**. Universal concepts are intangible meanings that are significant to everyone, such as life, death, family, parenthood, jealousy, loyalty, forgiveness—all of the emotions, challenges, and values that make us human.

Effective interpretive themes should connect tangible resources (sites, objects, or facts) to visitors' interests. Interpretation is most effective when visitors can relate the themes and messages on a byway to their own lives. A good theme will stir emotions and thoughts in a visitor, helping create memorable experiences. Provocation is

more significant than factual information. Inspiring people to relate the information to their own lives is a measure of success.

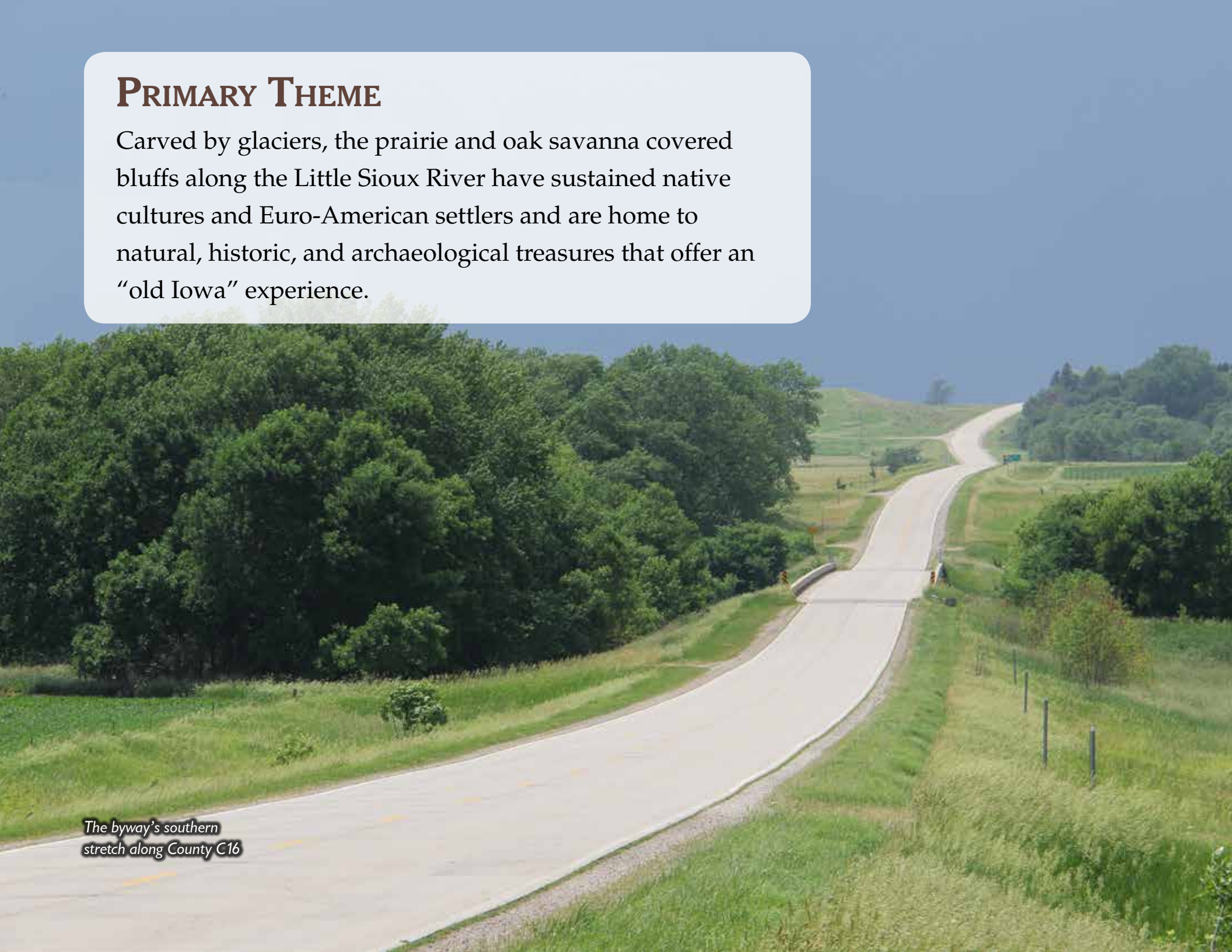
Organization of Themes and Messages

- A **primary theme** states the major concepts that unify all of the stories of the Glacial Trail Scenic Byway within one overarching idea. To provide a cohesive visitor experience, all interpretation should relate to this holistic theme.
- **Sub-themes** divide the primary theme into several sub-sets of related ideas that allow for a more workable framework of storylines.
- **Messages** break down the broad sub-themes into specific stories of people and places that can be told with interpretive media and programming.

PRIMARY THEME

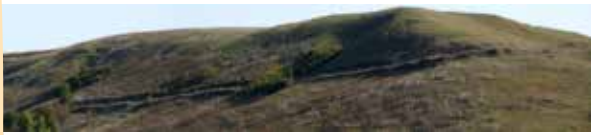
Carved by glaciers, the prairie and oak savanna covered bluffs along the Little Sioux River have sustained native cultures and Euro-American settlers and are home to natural, historic, and archaeological treasures that offer an “old Iowa” experience.

*The byway's southern
stretch along County C16*



SUB-THEME 1

Courtesy of O'Brien County Conservation



The Hanging Valley is described as a “ghost from the era of wall-to-wall floods of meltwater.”

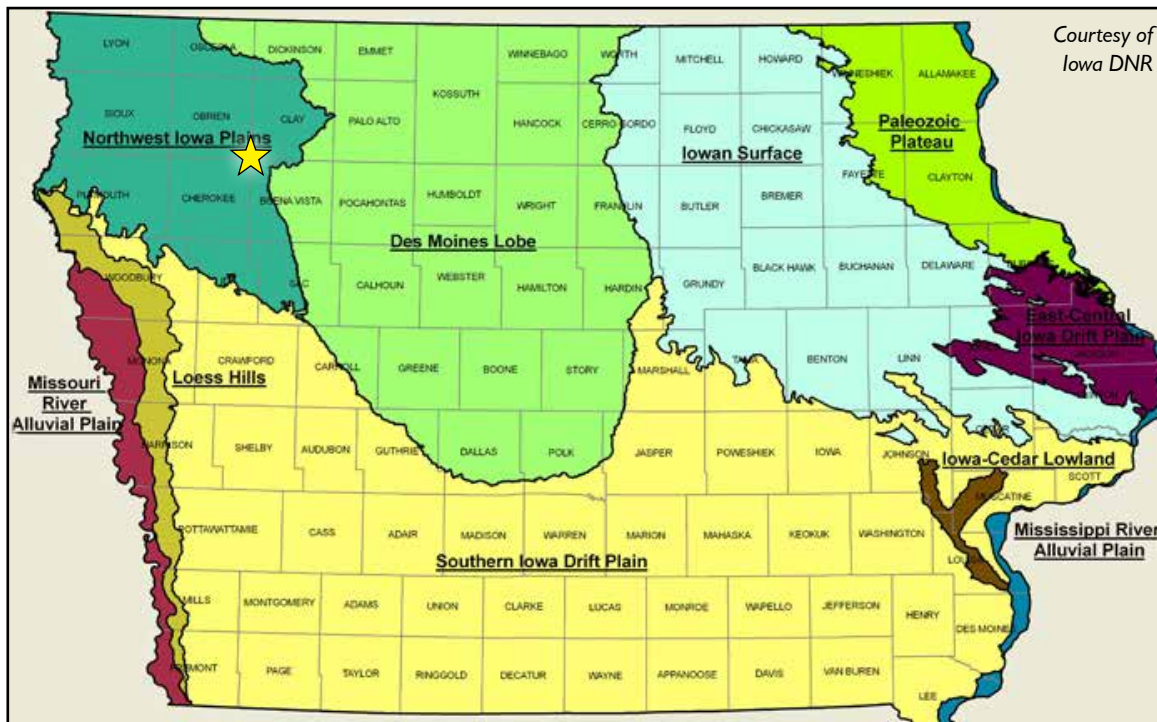
The middle Little Sioux River landscape of scenic bluffs and deeply cut valleys is the work of Pleistocene glaciers that carved the area 14,000 to 12,000 years ago.

Messages:

1.1 The gently rolling Northwest Iowa Plains Region was shaped by glaciers older than those that created the Des Moines Lobe to the east. It

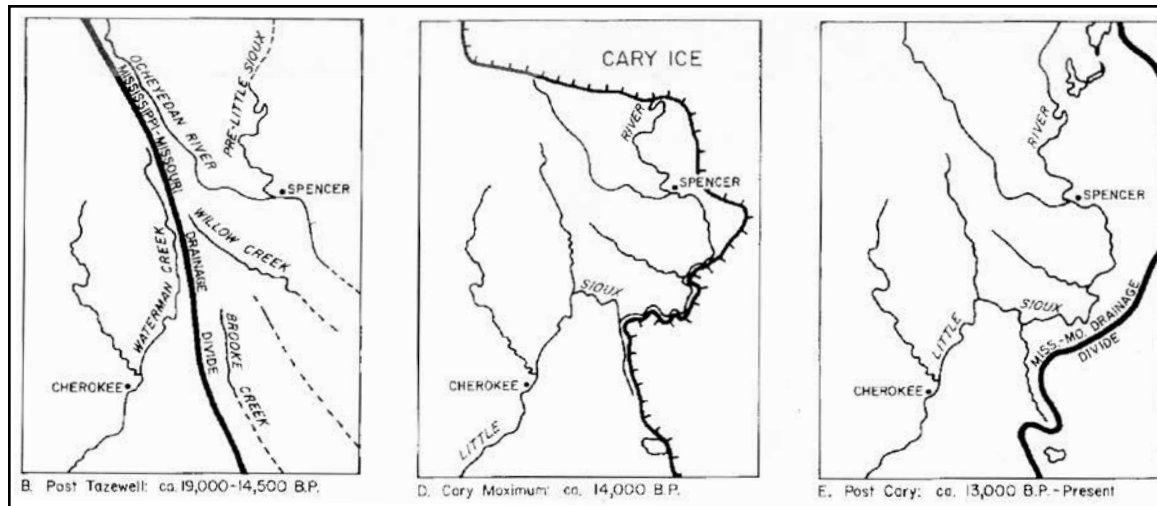
is a much more eroded landscape, with long, low rolling swells and a well-established branching network of streams. Unobstructed vistas to the horizon resemble those of the high plains to the west. Loess from glacial meltwaters has blown from the Missouri River valley to overlay the region, thinning to the east.

1.2 The Des Moines Lobe of the Wisconsin glacier blocked the flow of the Mississippi-bound Little Sioux River, diverting it instead to the Missouri River. This diverted drainage caused the temporary filling of Glacial Lake Spencer along the ice’s margin. As the glacier receded, meltwater rushed from the dammed lake and cut a steep and scenic valley in its path toward the Missouri River. The surging water carved deep into the soft glacial drift, eventually cutting a valley 200 feet deep and up to one mile wide.



Courtesy of Iowa DNR

Glacial Trail byway (marked by the star) lies at the margins of the Des Moines Lobe and the Northwest Iowa Plains landform regions. The Des Moines Lobe cut off the Little Sioux River and redirected it from the Mississippi to the Missouri River



The Des Moines Lobe cut off the pre-Little Sioux and Ocheyedan rivers and Willow Creek, diverting them west to Waterman Creek and shifting the watershed divide to the east. (Hoyer, 1980)

- 1.3 The bluffs bordering the Little Sioux River are eroded hills from the earlier Tazewell Phase of the Wisconsin glacial period (about 20,000 years before present). The river cut through this landscape, creating bluffs up to 200 feet above the floodplain. Many of the bluffs exhibit cat-steps, which are slumping parallel terraces descending the hills.
- 1.4 The Hanging Valley in Waterman Prairie formed during or shortly after Lake Spencer drained some 13,000 to 14,000 years ago. It is an intact relic valley abandoned early in

the development of the river valley when the river changed course. This 50-foot deep valley ends at a steep overlook of the present Little Sioux River valley about 80 feet below.

- 1.5 In 1970, construction of a sewage treatment plant in Cherokee revealed the remains of Archaic Indian hunting camps at the confluence of a creek with the Little Sioux River. Archaeological excavations revealed that these big game hunters ambushed, killed, and butchered a larger now extinct bison species at this site, probably a game trail

that led to the river. The evidence included bison bones, projectile points, stone tools, and a bird bone flute, one of the oldest musical instruments in Iowa. The use of the site was continuous from about 9,500 years to 7,500 years before present.

Courtesy of the Sanford Museum



Archaeologists excavated an Archaic Indian hunting camp discovered when a sewage treatment plant was built in 1970 in Cherokee.



Bobolinks, one of several grassland bird species threatened by habitat loss, are summer residents of Waterman Prairie.



Waterman Prairie is one of the best places for an immersive prairie experience.

SUB-THEME 2

The Glacial Trail byway area harbors the greatest concentration of native prairie and oak savanna in Iowa outside of the Loess Hills and offers visitors an unparalleled experience in nature.

Messages:

- 2.1 Slopes and ridges bordering the Little Sioux River are difficult to farm and remain as unplowed remnants of the prairie that once covered much of Iowa.
- 2.2 More than 4,000 acres of public land in the region preserves large connected tracts of prairie and savanna, providing habitat important for maintaining native populations of flowers, grasses, and wildlife.
- 2.3 The Waterman Prairie Bird Conservation Area (BCA) encompasses more than 69,000 acres in the Waterman Creek and Little Sioux River watersheds. It is an important area for nesting and migratory grassland and savanna birds. Public land along these streams forms the core of the BCA. The confluence of Waterman Creek and the Little Sioux River has long been a popular area for birdwatchers. Both eastern and western meadowlarks nest here as do many other prairie birds. The valley is a primary interior fall migration corridor for raptors. Red-headed woodpeckers are common in oak savanna areas. Western bird species rare to Iowa are seen here. In winter, springs provide open water for bald eagles.
- 2.4 Iowa has few areas that resemble the pre-settlement landscape. The scenic Little Sioux River valley and Waterman Creek, along with the Waterman Prairie Complex, are areas where visitors can see remnants of unbroken prairie and riparian forest and imagine a landscape of great beauty and diversity that existed before settlement. One of the best places to experience this landscape is Waterman Prairie on Wilson Avenue.

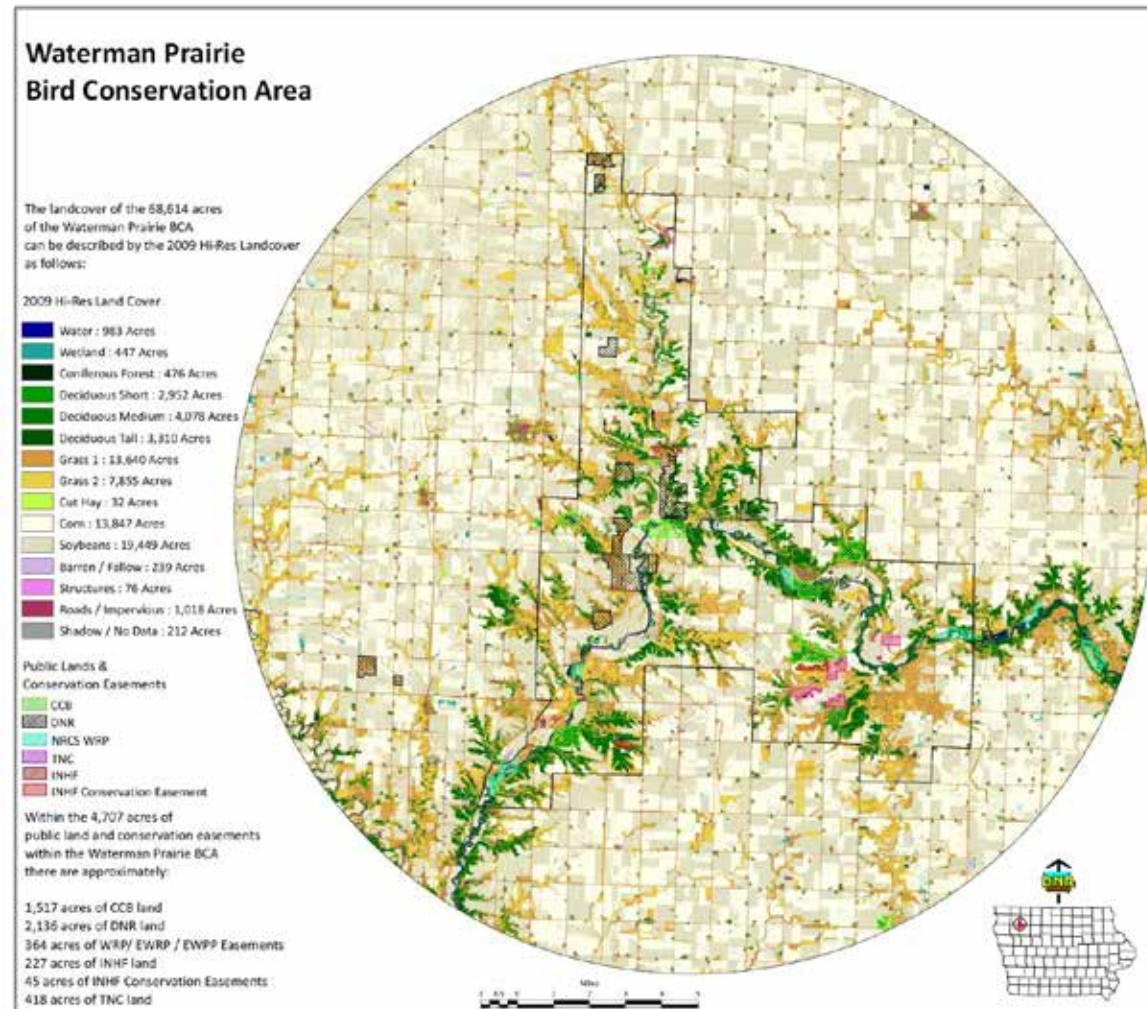
A summer walk through the prairie is a sensory delight with the buzz of insects pollinating flowers and the song of prairie birds marking their nesting territories. The meandering river set in a wide valley lined with undulating bluffs is a scene of immense beauty.



Prairie Heritage Center interprets the cultural and natural history of northwest Iowa's prairies.

2.5 Prairie Heritage Center evokes the pre-settlement landscape with its prairie plantings, valley view, and bison herd. Bison were an essential ingredient in a healthy prairie ecosystem. They roamed widely and, unlike cattle, travel far from water to graze mostly on grasses, which allows a mosaic of prairie flowers to flourish. Adjacent to the center, hiking trails traverse the restored prairie and oak forest land of the Hannibal Waterman Wildlife Area.

2.6 A consortium of county conservation boards, the Iowa Department of Natural Resources, the Iowa Natural Heritage Foundation, and The Nature Conservancy acquire, manage, and preserve this landscape. This landscape-scale application of conservation biology protects species, their habitats, and an ecosystem large enough to ensure ecological diversity and genetic diversity within species.



SUB-THEME 3

Courtesy of Sanford Museum and Planetarium



An archaeological excavation of the Chan-Ya-Ta site in 1974 led to its placement on the National Register of Historic Places in 1978.

Courtesy of University of Iowa Office of the State Archaeologist



An illustration depicts the Wittrock village site, with its earth lodges and protective palisades and ditch.

Mill Creek Culture prehistoric villages identified near the Glacial Trail Scenic Byway give visitors an insight into this unique group of people and the work of the archaeologists who study this nationally significant culture.

Messages:

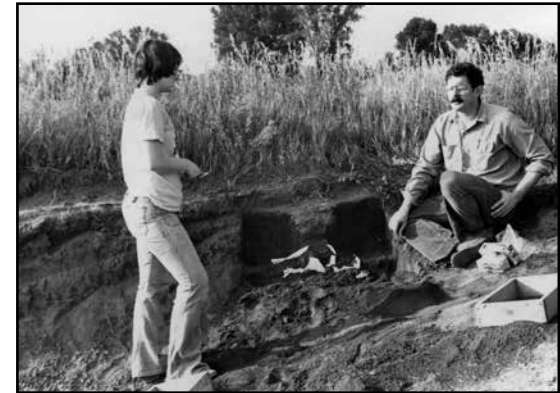
- 3.1 Twenty-eight identified Mill Creek villages are clustered along the Little Sioux River and its tributaries Brooke Creek, Mill Creek, and Waterman Creek. Archaeologists have excavated eight of these sites that were inhabited from A.D. 1000 to 1200.
- 3.2 Mill Creek archaeology sites reveal small villages of closely set earth-covered lodges set on terraces above a creek or river. Palisade walls and a ditch typically fortified the villages. They appear to have been occupied year-round.
- 3.3 Mill Creek people grew crops including maize and squash in bottomland gardens or in ridged fields such as those still visible at the Litka site on Waterman Creek. These were Iowa's first corn farmers. Excavated middens revealed that bison and other game and fish were included in their diet.
- 3.4 Many items found in Mill Creek Culture excavations and those at Middle Mississippian sites along the Illinois River indicate extensive trade between these two groups.

3.5 The Wittrock and Chan-Ya-Ta sites near the byway are two intact sites that have been excavated and described. Wittrock, deeded to the state in 1937, was the first ancient village site preserved by the state. It was dedicated as a National Historic Landmark in 1965 and designated an Archaeological State Preserve in 1968. Chan-Ya-Ta, near Brooke Creek on the southern byway leg, is included in periodic tours. The access to Wittrock was recently acquired, with future developments planned.

3.6 Speculation as to why the sites were abandoned in the 13th century revolve around growing competition from Oneota cultural groups, Great Lakes tribes that spread into the region. This likely explains the need for defensive fortifications at the Mill Creek sites. The historic Mandan and Hidatsa villages on the upper Missouri River, where the Lewis and Clark Expedition overwintered, were likely descendants of the Mill Creek people.

3.7 Several Oneota archaeological sites have been identified in the byway vicinity. Northwestern Iowa Oneota sites include Burr Oak, Bastian, Correctionville, Dixon, Gillett Grove, and Blood Run found along the Missouri, Big and Little Sioux rivers, and Mill Creek. The Ioway, Missouri, and Otoe tribes are likely descendants of the Oneota.

Courtesy of Sanford Museum and Planetarium



Archaeological digs were conducted at Wittrock Preserve.

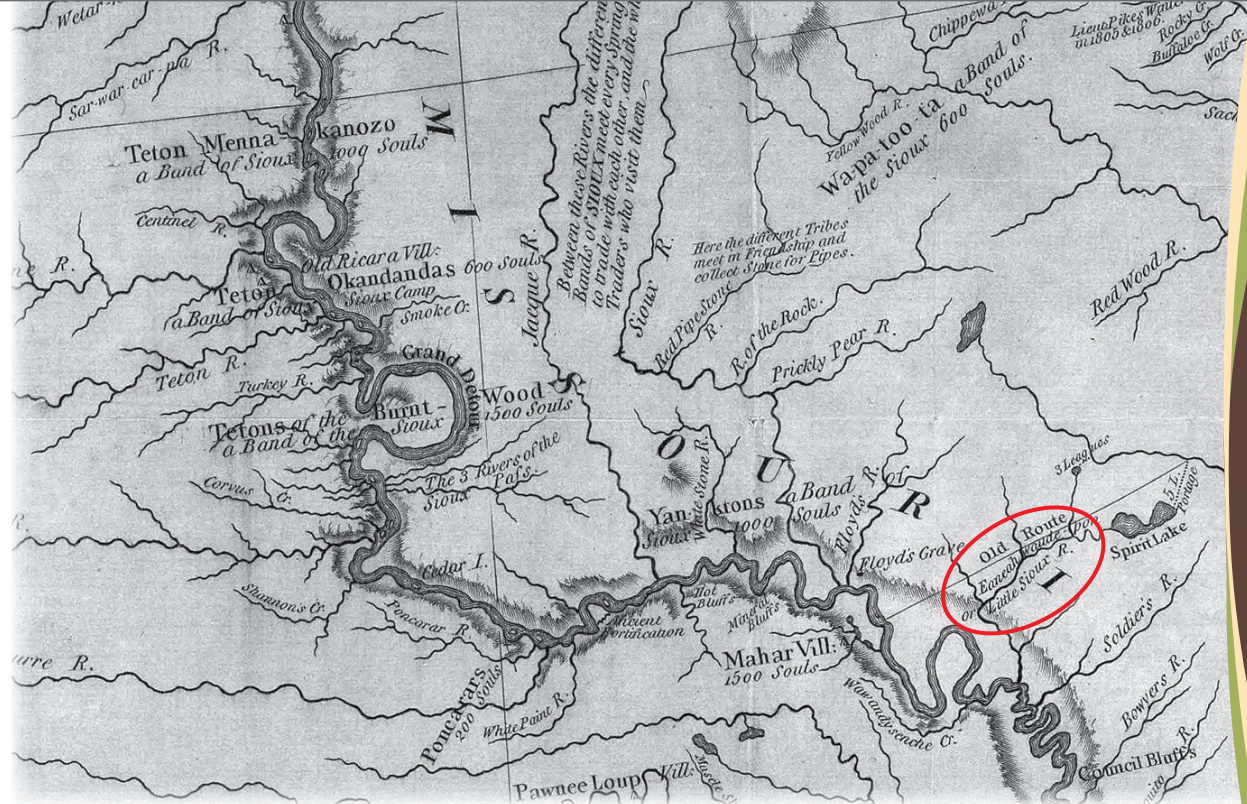


Exhibits at the Sanford Museum and Planetarium in Cherokee interpret the Mill Creek Culture, including displays of archaeological artifacts.

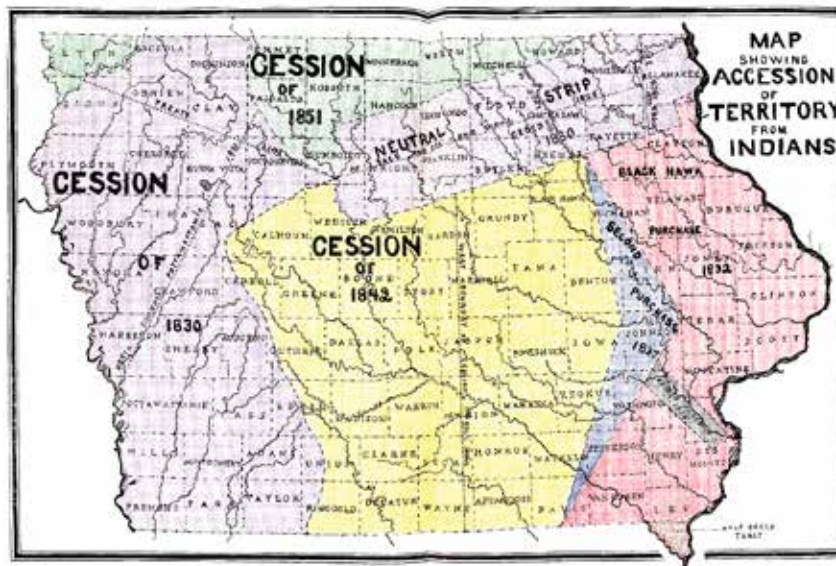
with the Yankton and described them as a nomadic tribe that hunted “between the Missouri & River Desmoine, on the Little River Sioux.” The Ioway, depleted by disease and warfare, had moved to a village on the lower Des Moines River.

4.4 Beginning in 1830, the tribes occupying Iowa ceded their territories to the United States government, with the final cession in 1851 by the Dakota. In exchange, the tribes received grants of reservations, annuities, and goods.

4.5 In 1851, the Iowa Legislature established 49 counties. At the whim of legislators, the counties’ names came from famous men, Indian tribes, and battles. O’Brien County was named for William Smith O’Brien (1803-1864), an Irish revolutionary who was inspired by American democratic ideals; Clay County for Henry Clay, Jr. (1807-1847), an officer in the Mexican-American War who fell in battle; Buena Vista County for the Battle of Buena Vista in the Mexican-American War; Cherokee County for the Native American tribe of that name.



This segment of Lewis and Clark’s 1814 map includes the Little Sioux River (circled) and notations about the Sioux Indians encountered near there.

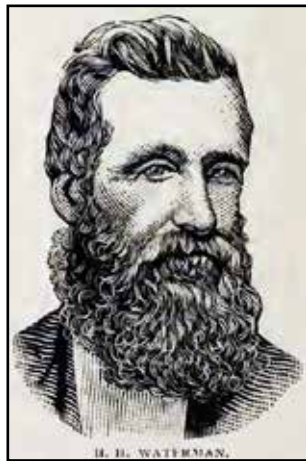


The land of the Little Sioux River was set aside as an Indian reserve in the Prairie du Chien Treaty of 1830 and opened for settlement in 1851.

Courtesy of iowagenweb.com



J.A. Kirchner was one of Clay County's first settlers.



Hannibal Waterman was O'Brien County's first settler.

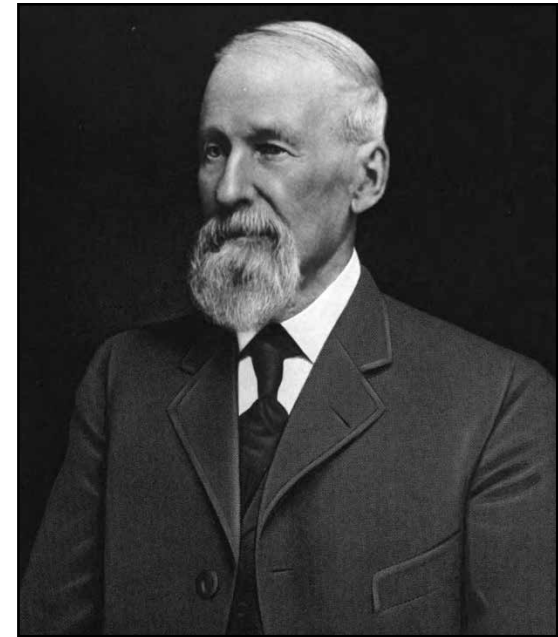
- 4.6 In 1856, several Euro-American settlers came to the four-corner area of Clay, Buena Vista, Cherokee, and O'Brien counties to make claims along the Little Sioux River. Needing water and building material, the earliest pioneers chose the fertile, wooded river, forsaking the treeless plains. This settlement was one of the last of the "log cabin frontier." Later settlers built frame structures.
- 4.7 In April 1856, brothers J.A. (Gust) and Jacob Kirchner and Ambrose Mead arrived at the Little Sioux River in search of farmland. Seeing fertile land and the potential for waterpower, they picked out cabin sites and planted gardens. Gust returned to upstate New York, returning in the fall with supplies, his parents, and 10 siblings. He constructed a sawmill on the river, to which newcomers brought timbers to be cut into lumber. Clay County's first settlers became the nucleus of the town of Peterson. Drake Hokanson's book *Reflecting a Prairie Town: A Year in Peterson* provides compelling first-person accounts of the Kirchner family coming to Peterson, establishing a homestead, and their encounters with Inkpaduta's Wahpekute Dakota band.
- 4.8 In 1856 in Fort Dodge, Hannibal H. Waterman, his wife, Hannah, and daughter Emily met the Kirchner family returning from New York. Gust and Hannibal spent the evening together and Gust urged Hannibal to lay a claim near theirs. The Waterman family settled in O'Brien County about five miles northwest of Peterson, with two yoke of oxen and household goods. Waterman exercised his right as a squatter by filing a claim in the government land office in Sioux City, becoming the first settler in the county.

4.9 The first settlers in Cherokee County also arrived in 1856. Robert Perry, an Irish immigrant, picked a spot by the river in Pilot Township for the first homestead in the county. On his way to the government land office in Sioux City, he met Carlton Corbett and Lemuel Parkhurst, advance agents of the Milford Society, and convinced them to establish their proposed colony in the Little Sioux River valley. Residents of Milford, Massachusetts, formed the society to establish a colony in the west. The proprietors were primarily shoemakers and professional men of Milford. The Milford Colony would soon grow into the town of Old Cherokee.

4.10 Surveyors by the name of Lane and Ray were the first non-Native Americans to visit Buena Vista County. They surveyed a road from Fort Dodge to Sioux Rapids where, in 1855, they laid claims to timberland along the Little Sioux by posting notices on trees proclaiming, "This land is taken by Lane and Ray." This was in the days before the homestead law when squatters claimed land and held it by right of possession. They built a cabin,

and trapped and hunted through the winter of 1855-56. Returning to Fort Dodge in the spring, they encountered several immigrants, including New Jersey immigrants William Weaver and his wife and brother-in-law, Abner Bell. Lane and Ray sold their claims to a man named Templeton and never returned. Bell took up residence with the Weavers in the spring of 1856 and they became the first settlers in Buena Vista County. Bell was a hunter and trapper and supplied the new settlers with meat. He became a legend among the early settlers, as documented in *Past and Present of Buena Vista County* (1909).

4.11 These early settlers had moved into a territory where bands of Dakota had hunted for generations. By 1851, with game depleted and the Dakota marginalized and unable to support their people, some Santee leaders saw selling their land as a way to gain resources they needed to survive. A land cession treaty, with guaranteed annuity payments, could help them through these tough times. The Dakota people sold most of their land in Minnesota and Iowa to the U.S. in exchange for annuities paid over decades.

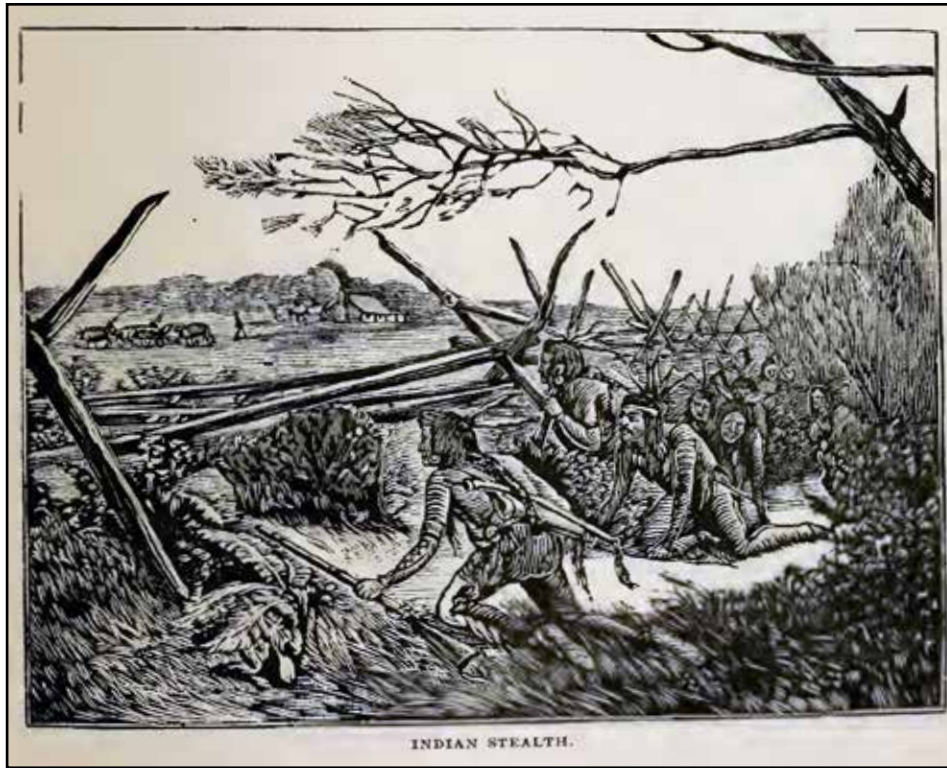


Carlton Corbett was an agent of the Milford Society, a group of early settlers in Cherokee County.



The 1851 Treaty of Traverse des Sioux stipulated that the Dakota would retain a strip of land 20 miles wide, spanning along the Minnesota River.

An illustration of "Indian Stealth" from the 1909 book *Past and Present of Buena Vista County, Iowa*.



4.12 The U.S. government aimed with their treaties to push the Sioux to convert from a nomadic hunting lifestyle into farming, providing them compensation in the transition. The forced change in lifestyle and the slow delivery of annuity payments and inadequate or even spoiled food supplies from the federal government caused suffering and increased social tensions within the tribes and resentment toward the

growing tide of white settlers. Many Dakota were forced to live off the reservation on old hunting grounds to survive.

4.13 In late fall 1856, Inkpaduta, a Wahpekute Santee Sioux, led a band of about 70, including 10 warriors, to winter on their traditional hunting lands on the Little Sioux River. They camped in a hollow near the cabins of the Kirchners, Bicknells and Meads, a place that they likely

had used in past winters. Described as "probably hungry through much of the fall because of a lack of game and now probably desperate because of the ferocity of the winter" (Hokanson, 1994), they came to the settler cabins to beg for food.

4.14 The winter of 1856-57, perhaps the worst in northwestern Iowa history, unleashed blizzards of heavy snow with great winds and arctic temperatures. Inkpaduta led his band downriver to the vicinity of Smithland in search of dwindling game. "These were to be the last days of hunting by Native Americans on the northwest Iowa prairies." (Hokanson, 1994)

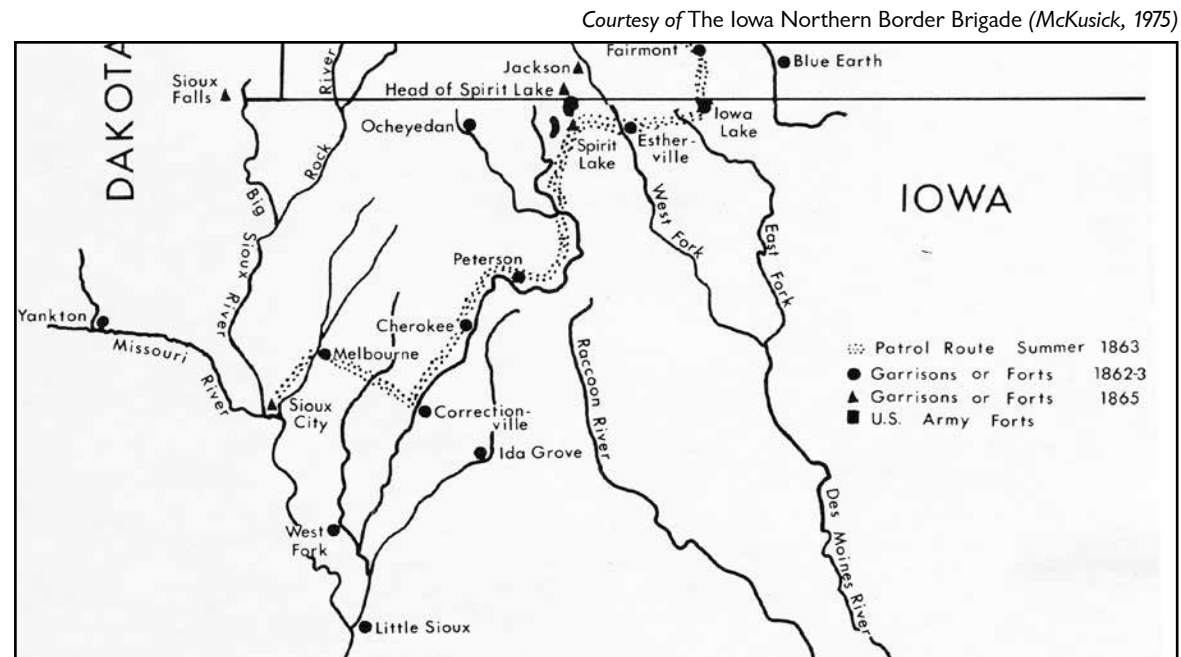
4.15 Resenting the presence of the Sioux, and after some disturbances, a militia from Smithland confiscated their guns and drove them from the area in February. Their desperation and anger building, Inkpaduta's band retraced the route along the Little Sioux River, raiding cabins, taking guns and food, killing livestock, and taking temporary hostages. Their raids included the Milford Colony at Cherokee, the Waterman place, the Kirchner place, the Mead cabin, and the Totten and

Weaver places in Sioux Rapids. Then they departed for the Iowa lakes and Springfield (Jackson), Minnesota, where they attacked and murdered about 40 settlers and took four women captive. They later killed two of the captives and ransomed two before disappearing. (See full accounts of the raids on the Little Sioux River cabins in the Glacial Trail Scenic Byway Corridor Management Plan, 2013, and Hokanson, 1994.)

4.16 In August 1862, the Dakota Conflict began in Minnesota. The Santee Dakota, their lands relinquished to the U.S. government and their people driven to starvation by corrupt Indian agents and broken treaty promises of food and annuities, attacked forts, towns, and pioneer farm families.

4.17 The Dakota Conflict spread across the region, killing hundreds. In northwestern Iowa, panic led many settlers to abandon their farms for the protection of larger towns.

4.18 The Iowa Legislature established the Iowa Northern Border Brigade,



The Iowa Northern Border Brigade established 11 forts and garrisons in northwest Iowa.

mustering 250 untrained volunteers into cavalry units from Sioux City to the Minnesota border. Their first task was to establish a line of forts and stockades through the region.

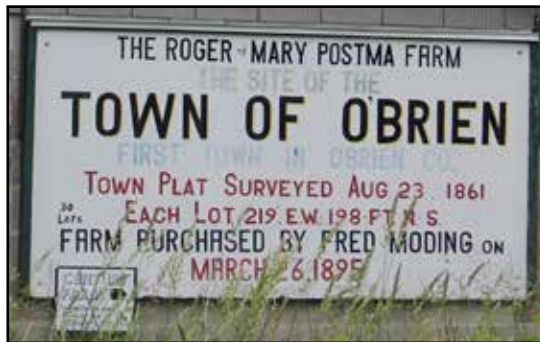
4.19 By September 1862, most Santee Dakota were captured, surrendered, or fleeing to the west. The Dakota Conflict ended even before Fort Peterson was completed in April 1863. The Iowa Northern Border Brigade disbanded in 1864, abandoning all fortifications, which had never been used.



Peterson, Cherokee, and Correctionville had triangular forts anchored by an eight-sided blockhouse. The Fort Peterson Blockhouse is the last vestige of the Border Brigade fortifications.



The first O'Brien County courthouse, built next to Hannibal Waterman's residence, was moved to the town of O'Brien when the new county seat was platted there. Over the years, it served as a school and blacksmith shop.



This sign marks the O'Brien town site.

SUB-THEME 5

In the mid-1800s, pioneer settlers transformed the prairies and oak savannas near the byway into farms and towns, established civil government, and became connected to the nation through the building of railroads.

Messages:

- 5.1 Before county governments were established, settlers traveled to Sioux City to register their land. The first settlers quickly established county seats and elected county officers. Because the settlements were along the Little Sioux River, the first county seats of O'Brien, Clay, and Buena Vista counties were clustered together on the river.
- 5.2 A "gang" of seven "professional politicians" from Sioux City came to Hannibal Waterman's house in 1859 to hold an organizing election for **O'Brien County**. In 1860, county elections chose Waterman as treasurer, recorder, and school superintendent. The Sioux City group built a log courthouse next to Waterman's house. The "gang" then issued false warrants for payment well in excess of the costs. Because of the deception, Waterman wanted no further part in the county seat location.
- 5.3 A board of commissioners appointed in 1861 established a county seat in O'Brien County. The board purchased 40 acres 3 miles west of Peterson for \$2,000. The land was surveyed and the first town was platted into 40 lots, with 13 of them designated as the county seat. Some streets bore Civil War names. The log courthouse was moved from Waterman's farm to the new county seat. Over the years, it served as a school and blacksmith shop.
- 5.4 By 1872, the courthouse occupied three buildings located around the public square. The town of O'Brien included two general stores, a hotel, a blacksmith shop, a shoe repair shop, the *O'Brien Pioneer* newspaper, a post office, a bank, eight residences, and a brick schoolhouse.

A mural commemorates the eight men who platted and named Primghar, incorporating the first letter of each person's name.



- 5.5 With settlement spreading across the county, citizens desired a centralized county seat. In 1872, 302 out of 360 votes cast relocated the seat to the exact center of the county. It is the only case in Iowa where a spot of virgin prairie was voted to be the county seat. It is named Primghar, using the first letter of the name of each of the town founders.
- 5.6 After the election, citizens moved the building serving the county auditor from O'Brien to Primghar. One after another, O'Brien businesses closed and within a few years the town disappeared.
- 5.7 In 1858, **Clay County** citizens met at the home of A. S. Mead to create a county government and elect officers. Of the 18 men who voted, 14 were elected to an office. In 1860, Peterson was chosen as the county seat and a courthouse constructed

at a cost of \$6,000. In 1871, with the town of Spencer laid out, county residents voted to move the county seat to this centrally located community.

- 5.8 Railroads were the greatest impetus to development in the four byway counties. The Dubuque and Pacific Railroad began construction in 1855

with a vision of a transcontinental railroad linking to Chicago. In 1860, with thousands of acres of Iowa land grants from the federal government, the company reorganized as the Dubuque and Sioux City Railroad, with the anticipation of selling land to the settlers streaming to Dubuque. The track reached Waterloo and Cedar Falls in 1861, but the Civil War stopped construction. After the war, construction continued with track laid from both ends, meeting near Storm Lake on July 8, 1870. The Illinois Central leased the line, connecting it to Chicago and to the Union Pacific line to the west coast. Cherokee and Buena Vista counties were now connected to the nation.

Courtesy of the University of Northern Iowa



The Dubuque and Pacific Railroad began construction in 1855, when the route across Iowa was still virgin prairie.

- 5.9 **Buena Vista County** organized in 1858, selecting the town of Prairieville, one mile south of Sioux Rapids, as its county seat. No town arose, so settlers conducted business in their homes. The first courthouse was built in Sioux Rapids in 1870, the same year the new railroad came to Storm Lake. In 1878, Storm Lake became the county seat.
- 5.10 **Cherokee County** elected county officers in 1857 and built a frame courthouse in 1864. The promise of a railroad from Fort Dodge to Sioux City running through Cherokee attracted businesses in the late

1860s. But when the railroad was completed in 1870, it did not cross the Little Sioux where expected. So residents moved their homes, shops, and the county courthouse about a mile and a half, closer to the new railroad depot.

- 5.11 In 1881, the Chicago and Northwestern Railroad completed a line with stations at Sioux Rapids, Linn Grove, Peterson, Sutherland, and Paulina. Sutherland, platted by the railroad, was named for the Duke of Sutherland, a British aristocrat who in 1881 was touring the west on the C&NW.

Courtesy of cherokeedepot.org



When the railroad came to Cherokee in 1870, it connected the citizens to the nation.

- 5.12 Many businesses and residents of O'Brien moved to the new town of Sutherland. The former town site is now a ghost town remembered fondly as "Old O'Brien."



An 1881 *Punch* magazine cartoon satirized the Duke of Sutherland's train trip across America.

5.13 Northwest Iowa was thriving in 1873 when a plague of grasshoppers descended. These Rocky Mountain locusts arrived in swarms so large they blocked out the sun. The plague peaked in 1874, the grasshoppers consuming everything. Farmers, now destitute, survived only by seeking chattel mortgages on everything they owned and donations, including \$50,000 appropriated by the Iowa Legislature.

5.14 The Rocky Mountain locust originated in the plains along the Rocky Mountains. In years of drought, they would change form and migrate with the wind to the east. Agriculture interrupted this life cycle, with the species now considered extinct.

5.15 Around 1857, Fred Feldman, known as “Dutch Fred,” immigrated to Peterson, leaving behind his wife, Wilhemine, and daughter, Sophia. He worked as a hired man for the Waterman family and homesteaded 80 acres overlooking the Little Sioux River. He had a sod shelter jutting out of the hillside and a livestock shelter. It was said that he homesteaded because he wanted to

Courtesy of Frank Leslie's Illustrated, August 1874



An 1874 sketch illustrates grasshoppers consuming a wheat field in southwestern Minnesota.

leave something to his daughter. He died in 1873, just six months short of fulfilling his homesteading obligations when he would own the land free and clear. He was buried on the bluff overlooking his land.



A map depicts the extent of the 1874 locust plague, which included all of western Iowa. The most affected areas are shaded in green.



Buena Vista County Conservation Park is an important natural area in the Waterman Prairie Bird Conservation Area and provides a wide range of recreational opportunities.



Wind turbines and windmills, like those near this farm near Paullina, represent a century of change in the production and use of wind energy near the byway.

SUB-THEME 6

In the four-county region of the Glacial Trail Scenic Byway, visitors experience authentic rural Iowa charm, abundant recreation opportunities, and tangible connections to local history.

Messages:

- 6.1 The county conservation boards for the four byway counties manage parks, wildlife areas, historic sites, and interpretive centers. Prairie Heritage Center, developed and staffed by O'Brien County Conservation, is the primary byway visitor attraction and information center.
- 6.2 The topography of the byway supports row crops of corn and soybeans in the valleys and pasture on the bluffs. This diverse agriculture provides an ever-changing scenic quality as one tours the byway.
- 6.3 Wind turbines along the byway are visible evidence of the shift to renewable energy in Iowa, which offers farmers another "crop" to sell to consumers.
- 6.4 Art and wine enthusiasts have several venues on the byway that offer a cultural experience not common in rural areas.
- 6.5 In 1933, the Clyde Barrow gang robbed banks and gas stations in northwestern Iowa and stole a car in Spencer. In mid-July, they camped on the W.A. Brady farm near Sutherland on Waterman Creek. Brady was in his field when he heard a car driving down a concealed road to a timbered area east of his house. He went to investigate and found three men and two women preparing a pheasant dinner. He spoke to them briefly, noting a southern accent. The men kept their hands in their pockets, probably holding guns. Brady memorized their license plate and contacted authorities. State officers found bloody bandages, fry pans, and other evidence of the gang.

- 6.6 Many communities along or near the byway preserve and celebrate their history. Of most interest to travelers is historic Peterson. Peterson Heritage is a nonprofit organization founded in 1971 to preserve the historical sites in Peterson, including the structures in Jacob Kirchner Memorial Park, Fort Peterson, the boarding house, and the Philip Kirchner log cabin, home, and barn. Many of these structures are on the National Register of Historic Places.
- 6.7 The Philip Kirchner historic cabin, home, and barn, located on its original site near Peterson, is a tangible connection to early settlers in northwestern Iowa.



This 1890 barn on the Philip Kirchner homestead is the largest in Clay County has a widow's walk, a feature unique to Iowa barns.

Courtesy of History of Clay County



OLD KIRCHNER HOMESTEAD,
First Modern House in Clay County

Christian Kirchner's home, the first frame house in Clay County, is preserved in Jacob Kirchner Memorial Park in Peterson.

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CHAPTER 6

INTERPRETIVE MEDIA



A byway wayside exhibit along County M12 interprets prairie restoration in the Glacial Trail region.



A full-scale Conestoga wagon pulled by “oxen” at the Prairie Heritage Center invites visitors to imagine the life of early pioneers who settled the Little Sioux River valley.



A panel near an overlook at Prairie Heritage Center interprets the prairie landscape that visitors can see.

INTERPRETIVE MEDIA

Heritage interpretation is a communication process that guides visitors in their search for meanings in objects, places, and landscapes.

The Glacial Trail Scenic Byway has a rich natural and cultural heritage. This scenic prairie and forest covered landscape was shaped by glaciers and rushing meltwaters that created the Little Sioux River valley. The valleys were ideal for pre-historic Native American gardens and early settler farms. Chapter 5: Themes and Messages expresses the stories associated with the byway.

Interpretive media are the tools used to communicate these interpretive messages to byway visitors. Interpretive media takes many forms. Wayside exhibits, trail signs, brochures, websites, audio

tours, apps, and visitor center exhibits are some of the methods we use to help visitors find their way and enjoy their experiences.

Well-planned interpretive media can open windows of revelation to visitors who seek their own personal connections in the byway resources. Visitors’ lives are enriched as they discover personal meanings regarding these resources. Part of the reward in traveling a beautiful scenic byway is the sense of discovery in exploring a new and exciting place and the feeling of growing emotionally and intellectually in the process of this discovery. The interpretive media recommended in this chapter should supplement and enhance existing facilities and programs.

EXISTING INTERPRETIVE MEDIA

A variety of interpretive opportunities are available along the Glacial Trail Scenic Byway for travelers. The byway council, Peterson Heritage, the Sanford Museum and Planetarium, and the four county conservation boards sponsor periodic tours and programs. Personal interpretation (tours and programs) is an effective way to connect people to the byway and its many stories. Interpretive media serves a need for insight into the byway's resources.

Information Centers and Museums

A couple of staffed centers along the byway provide information about the region to travelers. They are open regular hours.

- **Prairie Heritage Center:** This O'Brien County Conservation facility is the primary visitor center and interpretive site on the byway. The staffed facility is open regular hours Wednesdays through Sundays. Indoor and outdoor exhibits interpret the area's natural, cultural, and archaeological history, including prairie ecology, Mill Creek Culture, and O'Brien County's earliest settlers.

- **Sanford Museum and Planetarium:** This free, staffed museum is open 9 a.m. to 5 p.m. Monday through Friday and noon to 5 p.m. weekends. Exhibits feature the Ice Age, animals, prehistory and history of northwestern Iowa, in addition to the Planetarium and educational programming. Of particular interest to byway travelers are exhibits about the Mill Creek Culture that lived along the Little Sioux River and its tributaries.

Courtesy of the Sanford Museum and Planetarium



Children attend a planetarium program at the Sanford Museum in Cherokee.



Visitors can ask questions and pick up brochures at Prairie Heritage Center, which has regular hours year-round.

Courtesy of Peterson Heritage



A Peterson Heritage tour guide leads a group of children through the Fort Peterson Blockhouse.



Wayside exhibits on County M12 (above) and at Prairie Heritage Center in Peterson (right) interpret the prairie landscape of the region. Both exhibits have metal supports with cutouts of bison at the top and a cutout of the Iowa Byways logo in the base.



Wayside Exhibits

Conservation Innovation Grant Panels

Wayside exhibits were developed for 10 of Iowa's scenic byways in 2015 through a Conservation Innovation Grant (CIG) project. The goal of the project was to develop a cohesive, statewide set of panels that describe how Iowa's agricultural producers are utilizing conservation practices.

The designs for the panel and metal bases originate from standards developed by Schmeckle Reserve Interpreters for the Iowa Byways Interpretive Master Plans project.

Two CIG interpretive panels were installed on Glacial Trail Scenic Byway:

- **“Restoring the Prairie”**: This panel along County M12 in the southwestern quadrant of the byway, just south of 440th Street, interprets the negative effect that overgrowth of red cedars has on prairie landscapes. The panel is next to a farm field with a small pull-off area for cars.
- **“Maintaining the Prairie”**: This panel at Prairie Heritage Center in Peterson interprets the role of grazing and fire in maintaining the health of tallgrass prairies.



Three wayside exhibits at Prairie Heritage Center interpret the bison kept on site. One features their role in prairie ecosystems.



Another panel interprets bison characteristics, such as their fur, humped backs, and agility.



Another panel interprets bison family dynamics.

Additional Wayside Exhibits

Since the CIG panels were installed, additional wayside exhibits have been developed based on the same design.

In January 2017, Glacial Trail Scenic Byway, with support from the Buena Vista County Community Foundation, installed a wayside exhibit at Linn Grove Dam Park that interprets the geology of the Little Sioux River.

O'Brien County Conservation is using a similar design for interpretive signs at its properties. Prairie Heritage Center installed three panels interpreting bison. They are alongside the bison enclosure. The county also installed a panel at Mill Creek Park in Paullina that interprets a floating island.



Mill Creek Park has a panel that interprets a floating island structure that was installed to improve water quality and wildlife habitat.



A byway panel installed in 2017 at Linn Grove Dam Park interprets the geology of the Little Sioux River.

WAYFINDING

Wayfinding, the ability of travelers to negotiate a byway route and find attractions, is the basis for good visitor experiences. Without effective wayfinding, visitors can't access interpretive messages and may become frustrated with their experience.

To navigate successfully, travelers look for directional signs along the road, but other visual cues are also important. Byway staff should develop a procedure for regularly analyzing the effectiveness of wayfinding and develop plans to address confusing areas.

Overall, the Glacial Trail byway is easy to follow, partly because of the rural, relatively uncluttered right-of-way, but also because of the attractive, uniform Iowa byway logo signs that are recognizable and well-placed along the route.

Finding some byway attractions and resources, however, can be challenging to first-time and serendipitous travelers. The following recommendations can help improve the wayfinding experience both on and off the byway.

Recommendations

- **Official Byway Attraction Signs:** Work with the Iowa Department of Transportation to develop a system of byway attraction signs that guide travelers to primary byway resources, such as wayside exhibits, experience hubs, information centers, scenic overlooks, and other sites. The signs can be developed with a slightly modified version of the established DOT "Destination/Guide Signs" standards. The addition of the Iowa Byways logo marks it as an official state byway sign (to distinguish from other tourist directional signs) and provides visual unity with byway route identification signs and media.
- **Off-Byway Direction Signs:** Work with municipalities and government entities to develop off-byway directional signs to primary interpretive locations. For example, there are numerous significant attractions in and around Peterson that are not on the actual byway route—Fort Peterson Blockhouse, Philip Kirchner Log Cabin, Jim's History Barn, and other attractions. Direction signs from the byway to



Official Byway Attraction Signs would direct travelers to information centers, experience hubs, wayside exhibits, and other core resources.

these attractions will improve the wayfinding experience.

- **Experience Hubs:** Place easily recognizable experience hubs in prominent locations along the corridor to serve as focal points that draw the attention of travelers and provide orientation to local interpretive resources and media (see pages 86-94).
- **Online Media:** Include directional information and interactive maps in all online media such as websites, mobile tour websites, and apps (see pages 112-116).



- **Travel Guide:** Develop an interpretive travel guide that includes detailed maps and directional information regarding byway attractions (see pages 123-129).
- **Integrate Online and Traditional Media:** Place the byway website address and QR code on all traditional byway media such as experience hubs, exhibits, and publications.
- **Simplify the Glacial Trail Scenic Byway tear-sheet map** (page 78): A cleaner design will greatly improve its use as a wayfinding tool.
 - Use the base map and legend designed for this IMP (page 3). The designated byway route

should be the dominant map feature. Use a simple dotted line for the alternate scenic loops, paths, and river roads and label them directly on the map.

- Use the graphic design standards for the Glacial Trail Scenic Byway interpretive media (pages 83-85). These standards have been applied to all of Iowa's scenic byways to create system-wide design unity.
- Follow the example of other byway tear-sheets, which number and color-code all of the resources on the map side of the sheet and list and describe them by community on the back side.

Byway Loops

The Glacial Trail Scenic Byway tear-sheet map identifies alternative scenic loops, paths, and river roads that lead inside and away from the main route. These are promoted as alternative scenic drives, with the disclaimer that they include gravel sections. Designation of the Archaeological Landscapes, Prairie Viewing, and Parks Path as official DOT-approved loop roads with "Loop Indicator" signs will aid wayfinding and give prominence to these roads.

Loop Indicators from Iowa Byways Signage Policy

Some Iowa Byways have officially designated secondary routes known as "Loops." For byway routes that are designated as Loops, a Loop Indicator graphic shall be included in the Byway Guide sign.

The Loop Indicator graphic is a diagonal band containing the word "LOOP" placed in the upper left corner of the byway graphic identity. Typeface for the loop name shall be Gills Sans set in all caps and printed white on the black background.

If an Iowa Byway Loop has a name approved by the Iowa Byways Program Coordinator, the loop name may be printed on the Byway Guide sign in lieu of the designated byway name.

PLAN MEDIA HOLISTICALLY

The Glacial Trail Scenic Byway offers an opportunity for visitors to discover the essence of northwestern Iowa. It is an area reminiscent of the Great Plains, shaped by glaciers into rolling hills of prairies and oak savannas. Settlers congregated in the corner of O'Brien, Clay, Buena Vista, and Cherokee counties, homesteading along the Little Sioux River. The scenic river and its tributaries of Waterman, Brooke, and Mill Creeks were the historic homeland of the Mill Creek Culture Native Americans. Today the region is home to small towns steeped in history, parks and rivers for

recreation, and cultural attractions that offer a sense of place.

Interpretive media can help visitors discover some of these underlying meanings and appreciate the historical reasons for the natural and cultural landscape that surrounds them.

Connect to Universal Concepts: Media should be organized to interpret the unique personality of each community so travelers can see the shared qualities of seemingly different cultures.

Universal concepts such as life and

death, parenthood, adolescent rebellion, freedom of speech and religion, and other humanizing commonalities help visitors make emotional and intellectual connections to the byway resources.

Brand and Unify the Experience:

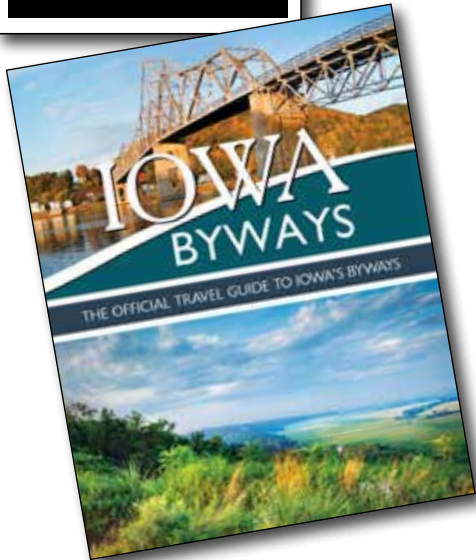
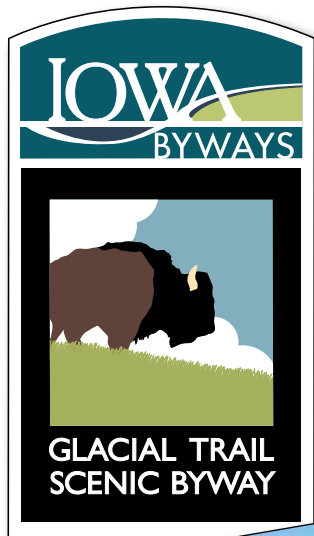
Visually coordinate the color palette, typeface, and other design elements to create immediate recognition by travelers. Media should be cross-referenced so a visitor can access information that will connect them to related stories, resources, and other media. For instance, publications should direct readers to websites, wayside exhibits, and audiovisual tours.

Diversify Delivery Techniques: Multiple delivery approaches communicate successfully with travelers of many ages, interests, backgrounds, and motivations. Weather and seasons require that alternative forms of media be offered.

Be Accessible: To communicate with the greatest number of people, incorporate a full spectrum of learning styles such as auditory, visual, and tactile. Media should be developed to connect with a variety of travelers including tourists, bus tours, commuters, and families.



Rural scene along the Glacial Trail Scenic Byway.



Following a set of design guidelines, as has already been done for the Iowa Byways, creates a family of media that is instantly recognizable as belonging to the state's scenic routes.

CREATE A VISUAL IDENTITY

Although the landscape along the Glacial Trail byway is rural, the road right-of-way can still have confusing visual distractions that may keep travelers from seeing and discovering the important stories of the byway. A primary goal is to make it easy for people to find the byway and access the significant resources that help them discover deeper meanings and develop an understanding of why these places are special.

The colors and design elements of the media graphics, the materials and construction of the supports, and even the typeface selected for interpretive inscriptions should reflect the personality

of the byway and create a pleasing uniformity that reassures the traveler.

The Iowa Department of Transportation has already developed a strong logo that is unified with the other Iowa byways and readily identifies the route for first-time travelers. Road signs featuring the logo unify all byways across Iowa with a distinctive artistic style and color palette. An accompanying Iowa Byways travel guide displays a coordinated family of byway symbols. The following media recommendations are intended to build from the success of the previous Iowa design work.

Visual Identity Through Design

- The colors that were selected for the byway logo should serve as the palette for other media.
- The Glacial Trail logo should be replicated on all signs, publications, and online media for optimal exposure and recognition.
- Employ unified design standards for all signs, wayside exhibits, and interpretive hub supports and frames.
- Utilize consistent design elements for all media, such as font size and style, uniform color palettes, and other artistic details.

Coordinated Design Standards

To provide a well-organized and cohesive travel experience, all media should be graphically unified. The repeated use of elements like colors, typeface, and symbols will group media into recognizable visual families on each byway. Consider the following recommendations when designing media:

Color Palette



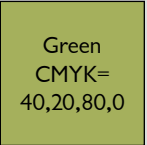
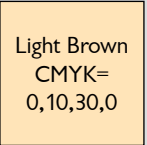

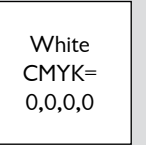


A consistent family of colors helps organize media and make words easier to read and understand. Color can also evoke feelings and set moods and attitudes.

In 2010, the Iowa Department of Transportation Office of Media and

Marketing developed logos and color palettes for all existing scenic byways and for a comprehensive Iowa Byways brand. Descriptions, policies, and regulations are addressed in the “Iowa Byways Brand Guidelines” document for each byway. According to the document, the brand is ultimately the byway’s public identity, which is intended to create awareness of the program and its benefits and to encourage and enhance the traveler experience.

The color palette developed for use on the Glacial Trail Scenic Byway should be repeated in the design of all media forms. The palette offers a foundation of contrasting and complementary colors that result in a consistently recognizable pattern.

Recommended Media Color Palette

 <p>Dark Brown CMYK= 80,90,100,0</p>	 <p>Blue CMYK= 50,20,20,0</p>	 <p>Green CMYK= 40,20,80,0</p>	 <p>Light Brown CMYK= 0,10,30,0</p>	 <p>Black CMYK= 0,0,0,100</p>	 <p>White CMYK= 0,0,0,0</p>
Curved headers, footers, subheadings	Curved header accent lines, subheadings, borders	Curved header accent lines, subheadings, borders	Curved header accent lines, tint boxes	Main text, captions, credits, borders	Text on dark backgrounds
 <p>Iowa Byways Light Blue CMYK= 100,70,60,0</p>	 <p>Dark Green CMYK= 25,0,75,70</p>				
Subheadings, quotes, captions	Additional family color				

Recommended Typography

CHELTENHAM BT

Main titles and headings

BrushTip Travis

Headings and subheadings, handwriting
(quotes, photos)

Garrison Sans

Main text

Garrison Sans Italic

Photo captions

Garrison Sans Italic

Photo credits

Typography

The selection of typefaces and sizes creates a personality and determines the readability of the writing on interpretive media. Each typeface expresses personality and sets a tone that reflects the organization or the message that is being interpreted.

Combinations of various styles can add an interesting hierarchy to the media design and help create specific personalities for each message. Fonts can appear lighthearted and fun, informal, businesslike, old-fashioned, rustic, or legalistic. Stylized fonts attract attention for titles and short headings but can be burdensome to read in longer texts.

On the Iowa Byways logo, the typeface for “IOWA” is a derivative of Cheltenham BT set in all caps. The original typeface was manipulated to blend with the abstract graphic representations of hills and valleys. The recommended font for main titles and headings on most byway media is **Cheltenham BT Bold**, evoking the timeless nature of the Glacial Trail region and creating consistency between media.

BrushTip Travis is an informal script font that provides contrast to the more formal fonts. It serves a similar purpose as the

“Lush rolling hills” font used alongside the curving line in the Iowa Byways official guide booklet. These types of fonts welcome viewers and invite them to explore interpretive media. **BrushTip Travis** is recommended for some titles and headings, such as on wayside exhibits, for subheadings, and to emulate handwriting. It can add an informal handwritten style to photographs or quotes.

Simple, familiar fonts work best for longer text that require more reading. **Garrison Sans** is recommended for the main text on byway media. Garrison Sans is used in the Iowa Byways publication, and it is also similar to Gill Sans, which is the font used on the byway logos. It is a sans-serif font (no decorations on the end of strokes) that is easy to read. Garrison Sans also works well for photo captions and credits.

A **hierarchy of type sizes** is also important to emphasize the relative significance of various messages. Typically, a main title is the largest size, followed by subheadings, main text, captions, and credits. These varying sizes help to create a logical visual sequence for readers to follow.

Repeating Graphic Elements

Another important factor that contributes to a unified design style is the use of repeating graphic elements. These artistic details, in combination with the color and typography schemes, develop a unique identity for the byway.

The Glacial Trail Scenic Byway and Iowa Byways logos are essential graphic elements that should be included on all byway media, from interpretive signs and publications to digital websites and apps. They provide a unified brand for the byway and for the Iowa Byways program.

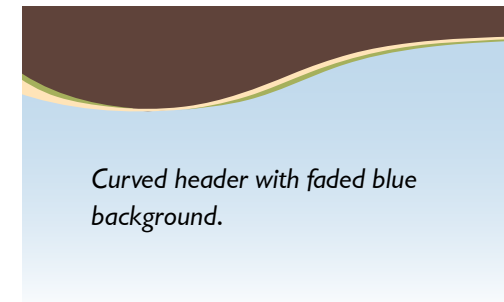
According to the Iowa DOT, “the colors and curves in the Iowa Byways logo are an abstraction of the undulating Iowa landscape. Individual logos for the individual byways in the Iowa Byways program were developed in an intentionally simple graphic style so as to appear as a recognizable and memorable graphic theme, descriptive of the character and experience of the byway, and as a safe and effective wayshowing tool when displayed on signage.”

Other repeated graphic elements on future interpretive media will reinforce the already existing design identity. These should include:

- Curving header bars comprised of gently interwoven contrasting dark, medium, and light colors from the Glacial Trail Scenic Byway color palette. The curve is reminiscent of the wave pattern in the Iowa byways logo.
- Faded light blue backgrounds with a gradient on interpretive media.
- White, snapshot-style borders for photos, tilted slightly, and with drop shadows.
- Large focal point images to draw attention.
- Byway website addresses and QR codes that link to the Iowa Byways website.



The Glacial Trail Scenic Byway and Iowa Byways logos are essential graphic elements to include on all media.



Curved header with faded blue background.



Snapshot photo effect with white feathered borders, caption, tilt, and shadow.

INTERPRETIVE EXPERIENCE HUBS

Experience hubs are thematic kiosks that orient byway travelers to significant area attractions and stories. Unlike staffed welcome centers, they are available 24 hours a day throughout all seasons.

To be effective, they must be prominently placed in public places where travelers can find them and where they will catch motorists' attention. It is important that "Byway Information" road signs alert travelers as they approach these kiosks. Parking should be available near the experience hubs.

When placed at entry points to a byway, experience hubs can introduce impromptu travelers and even local residents to attractions on the route. A well-designed experience hub attracts attention and makes visitors aware of the potential adventures that can be experienced.

Main community entry points and gathering areas along the byway include the Prairie Heritage Center near Peterson, Linn Grove, and Sutherland.



The most effective experience hubs are those installed in highly visible areas where visitors naturally gather, like this one designed with a maritime theme along the Door County Coastal Byway (Schmeeckle Reserve Interpreters design).

Experience Hub Concept Design: Front Side (Prairie Heritage Center)



Experience Hub Design

The byway identity will benefit from a consistent, recognizable pattern of design for all interpretive media. These designs will brand the media as relevant to byway travelers.

The planning team proposes an experience hub design that represents the rolling hills of the Glacial Trail byway, using timbers and weathering steel that complement the cultural heritage while blending appropriately with natural areas. This design is also reflective of other Iowa scenic byway structures, which helps travelers associate and identify similar patterns as they travel.

Each experience hub structure should:

- Exhibit a unified design with all other interpretive media.
- Reflect regional themes through unique graphics cut into the steel frame and through the messages included on each panel.
- Be highly visible to travelers, but not overpower existing agency and site entry signs at visitor centers, museums, and parks.
- Be easily replaced, modified, or repaired.

Materials

Construction elements, such as wooden timbers and weathering steel, bring a substantial feel and authenticity to the structure. The strong combination of wood and metal appears organic, while being vandal-resistant and low-maintenance.

Curved Steel Headers

A curved steel header at the top of the hub has a graceful rustic look and provides a surface for cut-out scenes to interpret the stories of the Glacial Trail Scenic Byway. Each hub can have its own unique cut-out designs to represent the region, such as rolling hills, bison, canoeists on the Little Sioux, prehistoric Mill Creek people, or pioneer settlers.

Interpretive Signage

Each experience hub will exhibit the same four interpretive panels—two panels on each side of the structure:

1. **Byway Overview:** The main panel introduces the byway and describes what makes it unique. It includes a byway map, photos, and brief text that reveals the character and uniqueness (themes) of the byway.

The three remaining panels are devoted to byway resources based on the six Intrinsic Quality categories as described in Chapter 4: Interpretive Resources.

2. **Natural Wonders:** This panel describes the **scenic and natural** and **recreational** attractions of the byway and includes a map and photos of key resources.
3. **Treasures of the Past:** This panel interprets the **archaeological** and **historic** resources of the byway and includes a map and photos of key attractions.
4. **Local Culture:** The panel will describe opportunities to enjoy local **culture**. Photos with captions describe the significant local resources.

The conceptual panel designs included in this plan are 36"-by-36". It is recommended that they be produced on ½"-thick high-pressure laminate, an affordable material that allows for full-color, high-resolution images that are resistant to damage and vandalism. A 10-year warranty against fading and delaminating is standard.

Experience Hub Concept Design: Back Side (Prairie Heritage Center)



GLACIAL TRAIL SCENIC BYWAY



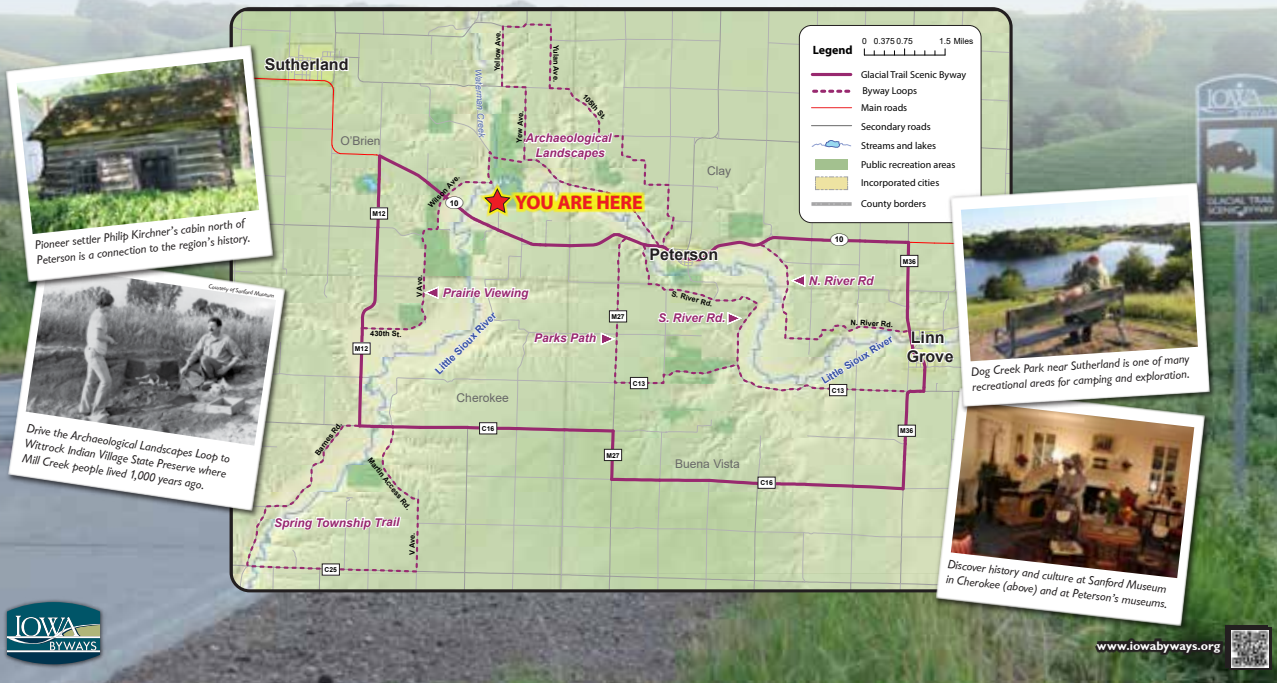
Explore the Little Sioux River Valley

This 36-mile byway loops through a landscape of glacial-formed bluffs and a wide river valley that contrasts with the northwestern Iowa plains. Native prairies and oak savannas dot the bluffs in parks and preserves. The scenery intersects with archaeology and history. The Mill Creek people lived here 1,000 years ago in earth-lodge villages. Dakota people clashed with pioneer settlers. A historic fort, 1800s homes, and museums offer tangible connections to early Iowa history.



Drive the Prairie Viewing Loop to experience the beauty of the Little Sioux River valley at Waterman Prairie Wildlife Area. Hike through a prairie, see grassland birds singing, and view the Hanging Valley, a unique relic from when glaciers carved this landscape.

Glacial Trail Scenic Byway Map



Experience Hub

Overview Panel Concept

(Prairie Heritage Center)

The main panel of each experience hub will provide an overview of the Glacial Trail Scenic Byway and its unique characteristics. A map displays the entire byway with an obvious "YOU ARE HERE" symbol. Major communities, roads, and streams are identified. Active snapshot-style photos showcase a few of the main resources.

Experience Hub

Natural Wonders Panel Concept

(Prairie Heritage Center)

Adjacent to the Overview Panel, this panel will interpret the natural and scenic attractions along the byway route, including some of the “must-see” attractions with photos and captions. An enlarged map of the byway and surrounding area shows the primary scenic, natural, and recreational resources and uses a “YOU ARE HERE” symbol. Universal symbols indicate areas for hiking, wildlife watching, nature centers, and canoe/kayak access points.

Natural Wonders

Remnant Prairies

Wander through prairies such as Waterman Prairie and imagine a time when this region was covered in native grasses that stretched to the horizon.

Glacial Trail Scenic Byway immerses travelers in the prairie landscape of the Little Sioux River valley. The region harbors native Iowa grasslands second only to those in the Loess Hills to the west. Remnant prairies and oak savannas dot the bluffs above the river. Native flora and fauna abound in more than a dozen parks and preserves along the route.

Natural Attractions along the Byway

Legend

- 0 0.25 Miles 1 2 Miles
- Glacial Trail Scenic Byway
- Byway Loops
- Main roads
- Secondary roads
- Streams and lakes
- Public recreation areas
- Incorporated cities
- County borders

Hiking Area **Nature Center**
Wildlife Watching **Boat Access**

Prairie Heritage Center
Begin your byway tour at the center. Indoor and outdoor exhibits, including a small bison herd, convey the rich natural and cultural history of the area. Enjoy scenic vistas of the Little Sioux River.

Waterman Prairie Wildlife Area
A short walk from the parking area on Wilson Avenue leads to scenic views of the Little Sioux River valley and the chance to watch grassland birds. See the Hanging Valley, an abandoned river bed formed 10,000 years ago by glacial floods.

Waterman Prairie Bird Conservation Area
The Waterman BCA encompasses 69,000 acres along Waterman Creek and the Little Sioux River. Find excellent birdwatching in Waterman Prairie, a large segment of the BCA.

Martin Access
Get close to the Little Sioux River at this 300-acre Clay County park. Accommodations include campsites and modern cabins. Explore hiking trails or using the boat access to get on the water.

Dog Creek Park
This O'Brien County park is a favorite for camping, hiking, swimming, and fishing. Two modern cabins fashioned out of grain bins offer unique accommodations.

Buena Vista Conservation Park
Explore nature on trails through oak savanna, restored prairie, and along a meandering stream. Campers can enjoy a modern cabin or a campground. Picnic shelters also are available.

Linn Grove Dam Park
This low-head dam on the Little Sioux is a popular fishing hole for catching walleye and catfish. A boat ramp provides access to the Inkpaduta Canoe Trail. Camping is also available.

Wanata Park
Trails traverse the bluffs and bottoms of the Little Sioux River in Peterson. A boat ramp offers canoe and boat access for excellent walleye and channel catfish angling.

Treasures of the Past



Jacob Kirchner Memorial Park, Peterson
Explore late-1800s life on northwestern Iowa's frontier by visiting town patriarch Christian Kirchner's home, his son's Italianate-style home, a 1868 one-room schoolhouse, and an antique farm machinery museum.

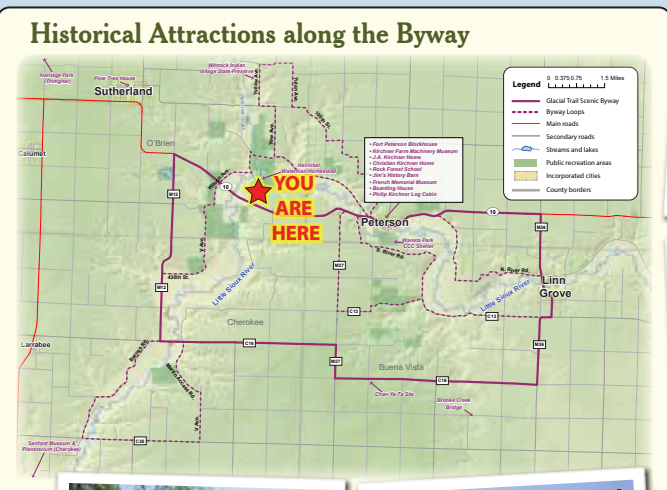
Explore the rich history of the Little Sioux River valley. Archaeologists have discovered prehistoric Mill Creek Culture villages on Waterman, Brooke, and Mill Creeks. In historic times, the Iowa and Dakota people flourished in the valley. Later, Euro-American settlers sought water and timber along this river, both absent in the surrounding prairie. Tour this byway to experience "Old Iowa."

Experience Hub

Treasures of the Past Panel Concept

(Prairie Heritage Center)

Located on the second side of the kiosk, the history panel interprets the historic and archaeological sites along the byway route. The map identifies the location of significant attractions.



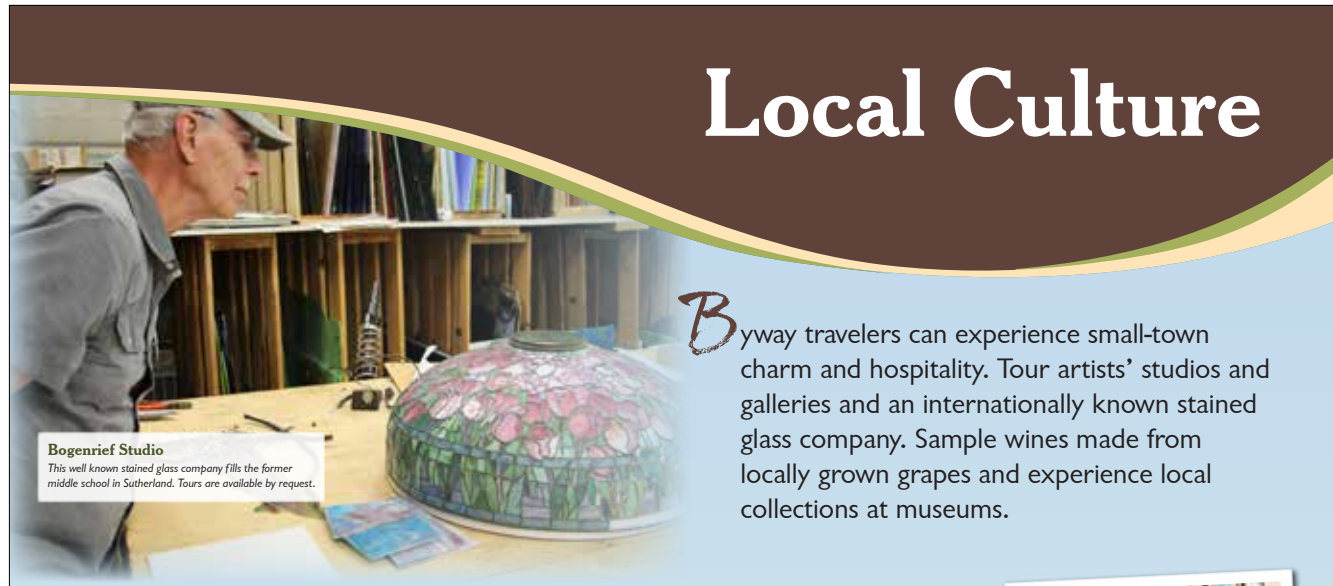
Experience Hub

Local Culture Panel Concept

(Prairie Heritage Center)

Adjacent to the Treasures of the Past panel on the second side of the kiosk, the local culture panel interprets the art, local food, shopping, and other attractions that give a sense of place to the region.

Local Culture



Bogenrief Studio
This well known stained glass company fills the former middle school in Sutherland. Tours are available by request.

Byway travelers can experience small-town charm and hospitality. Tour artists' studios and galleries and an internationally known stained glass company. Sample wines made from locally grown grapes and experience local collections at museums.

InnSpration Vines & Wines

Several acres of grapes provide the fruit for InnSpration Winery's many dry and sweet wine varieties. Live music and other seasonal events add to the ambiance. Rooms are also available for rent.

Cultural Attractions along the Byway

McGee Gallery & Framing

Barbara McGee's gallery in Peterson displays her work and creations by other Iowa artists. Local landscape paintings capture the beauty of the byway's scenery.

Barnes Ranch

Barnes Ranch, just off the byway, is not open to the public but is of interest to rodeo fans. The ranch provides bulls and horses for Professional Rodeo Cowboy Association events nationwide.

French Memorial Museum

The collections of Doris French include antique dolls in period dress, doll accessories, antique baby furniture and toys, painted by appointment.

Solsma's Punkin Patch

Solsma's Punkin Patch on Highway 18 east of Sanborn is open in the fall for pumpkin picking and wandering through a corn maze. A store retails homegrown popcorn and other goodies.

Getting's Garden

Getting's Garden northwest of Sanborn grows pick-your-own strawberries and raspberries. An on-farm store sells baked goods, janes, salsa, and other treats.

The Shrimp Shed

Mike and Tammi Heuck raise saltwater shrimp for sale at their Highway 18 farm near Evely. Baby shrimp are raised in swimming pools for about 5 months before they're sold locally or at the on-farm store.

Morrison's Studio and Art Gallery

Artist Bruce Morrison is known for his landscape paintings and nature photography, especially of prairies and birds. His gallery northeast of Sutherland is open by appointment.

Recommended Experience Hub Sites

Since experience hubs are intended to alert travelers to nearby attractions, they should be centrally located in areas where travelers already gather—where they are searching for amenities and at sites where there are significant stories to experience. These hubs are prominent enough to draw the attention of first-time visitors and to capture the attention of new audiences passing by.

Three locations are recommended for experience hubs representing major portals for the byway:



1. Prairie Heritage Center, Peterson

Prairie Heritage Center is considered the main visitor center on the Glacial Trail Scenic Byway. The center has regular hours and is a major attraction for byway visitors. Travelers can deepen their

understanding of the area's natural and cultural history by viewing the indoor and outdoor interpretive exhibits.

An experience hub near the visitor center parking lot will introduce the byway to travelers arriving from Highway 10. It can pique the interest of byway travelers as well as those previously unaware of the scenic route.



2. Bogenrief Studios, Sutherland

Sutherland, on Highway 10 just a few miles northwest of the byway, is a gateway community to the Glacial Trail route. Bogenrief Studios, directly on Highway 10, is a significant byway attraction because of its reputation for detailed stained-glass products. The studio is located inside the former middle school, a large building that is

noticeable to travelers. The studio also a large parking lot. A green space between the parking lot and Highway 10 is an ideal location for an experience hub. The byway route can be accessed just 3 miles to the southeast, so an experience hub can introduce the route and inform travelers of significant attractions.



3. Linn Grove Roadside Park, Linn Grove

Linn Grove is the main community on the eastern side of the byway loop. Linn Grove Roadside Park in the heart of the town is directly on the County M36 stretch of the byway route and would be an ideal location for an experience hub. Easily accessible street parking is available alongside the park.

TWO-PANEL KIOSKS

Two-panel kiosks would be effective at major byway attractions. These sites are where visitors should be encouraged to get out of their cars and explore. These kiosks provide orientation to the site and interpretation of the sub-themes and interpretive messages associated with the attraction.

A two-panel kiosk, constructed as a “half” version of an experience hub, provides an attractive and economical means for providing this information. Like the experience hubs, the kiosk will be constructed with wooden timbers, steel headers with thematic cut-out figures, and 36"-by-36" high-pressure laminate interpretive panels installed onto steel backing.

Each kiosk would be specific to the site, with the front panel providing an overview of the local story and the back panel providing more specific interpretation.



Two-Panel Kiosk Panel Concept (Waterman Prairie)

The two-panel kiosk panels, like this example for Waterman Prairie, can provide site-specific orientation and interpretation to encourage visitors to explore parks and preserves and to discover meaning in their visits.

A Walk in the Prairie



Overlooking the Little Sioux River

*V*ast prairies once covered Iowa's landscape. Today less than one-tenth of 1 percent remains. The Little Sioux River valley harbors native Iowa prairie second only to those in the Loess Hills to the west. There is no greater joy than to experience a pristine prairie in full bloom. Take a walk to the bluff-top overlooking the meandering Little Sioux River. Along the way, listen to calling Bobolinks and Meadowlarks.

The Hanging Valley



Glacial Lake Spencer burst out of its icy dam 14,000 years ago. The water cascaded to the west, cutting through the soft soil and carving out the Little Sioux River valley. Cut off from the main channel, which continued to sculpt out a deep, wide valley, this early valley remains as a "ghost from the era of wall-to-wall meltwater."



Waterman Prairie Wildlife Area



Dutch Fred's Grave



Fred Feldman, known as "Dutch Fred," immigrated to Peterson in 1857, leaving his wife, Wilhemine, and daughter, Sophia, in his native Germany. Feldman worked as a hired man for the Hannibal Waterman family and homesteaded 80 acres here overlooking the Little Sioux River. He dug a sod shelter jutting out of the hillside. He homesteaded the land in hopes of leaving something to his daughter. He died in 1873, just six months short of the requirement for the land title. Friends buried him on the bluff overlooking his farm.

Recommended Kiosk Sites



Jacob Kirchner Memorial Park

This kiosk will be installed at the entrance to the park just off Highway 10.

Front panel: *History of Peterson: A Prairie Town*

A history of Peterson illustrated with historic photos will describe the early settlement on the Little Sioux River. Drake Hokanson's book *Reflecting a Prairie Town: A Year in Peterson* (1994) is an excellent source of well-told stories that can be excerpted for the panel.

Back panel: *Kirchner Memorial Park*

This panel interprets the significance of each of the historic buildings restored by Peterson Heritage, Inc. The kiosk will include photos of interior period furnishings since the buildings are open only during scheduled tours.

Hannibal Waterman Wildlife Area

This kiosk will be placed at the trail entrance across from the visitor center.

Front panel: *Waterman Wildlife Area: Restoring the Prairie*

A map with trails identified will provide orientation to the area. The map also can identify key features such as restored prairie areas, oak savannas, and Waterman Cemetery. Interpretation will describe the prairie restoration process and include photos of common prairie plants and wildlife through the seasons. Interpretation should include the significance of oak savanna as a rare ecological community, important for diversity.



The Waterman family cemetery is set in an oak grove in the Hannibal Waterman Wildlife Area near the Prairie Heritage Center. A two-panel kiosk can interpret this wildlife area as well as the historical significance of O'Brien County's first European settler family.

Back panel: *Hannibal Waterman: Early European Settlers*

Interpretation will focus on the Hannibal Waterman family as the first European county settlers and the difficulties they encountered in establishing a home. The raid on their cabin by Inkpaduta's band should be told as a dramatic account and include the illustration "Indian Attack Upon Mr. Waterman" from the 1897 book *History of O'Brien County, Iowa*. The first county courthouse, built next to the Waterman cabin and its removal to the new county seat town of O'Brien, is a story of the challenges of establishing civil government. It can be illustrated with the historic photo of this log building.



Waterman Prairie Wildlife Area

A small parking area on Wilson Avenue is the entry to this significant byway attraction. The kiosk should be placed at the trail entrance.

Front panel: *A Walk in the Prairie*

The panel will include a map of the site with labeled locations, photographs, and interpretation of key features. An inset will use illustrations to interpret the Hanging Valley as a geologic feature. Another inset will tell the compelling story of Dutch Fred, with a photo of the grave marker.

Back panel: *A Prairie Heritage*

This panel interprets the region's prairies as a remnant of Iowa's once-vast prairie landscape. It will describe common forbs and grasses, wildlife with a focus on grassland birds, and the Waterman Prairie Bird Conservation Area.

A plaque at a Sioux Rapids cemetery marks the grave of Abner Bell, one of Buena Vista County's first settlers.



Linn Grove Dam Park

The large parking area on the north side of the dam is an ideal location to interpret the history of Buena Vista County and the town of Linn Grove. It should be placed near where the Moses Sweet grist mill was located on the river.

Front panel: *Beautiful View*

This panel will interpret the settlement of Buena Vista County and Linn Grove. The county was one of 49 the Iowa Legislature established in 1851 and was named for the Battle of Buena Vista in the Mexican-American War. In 1855, surveyors Lane and Ray, surveying a road from Fort Dodge, were the first non-Native Americans to visit Buena Vista County. The surveyors camped in a

grove of linden trees on the Little Sioux River and named it Linn Grove. They laid claims to timberland along the Little Sioux by posting notices on trees that proclaimed, "This land is taken by Lane and Ray."

Returning to Fort Dodge, they encountered New Jersey immigrants William Weaver with his wife and brother-in-law Abner Bell. The surveyors told them about the beautiful land on the Little Sioux River. The Weavers and Bell became the first settlers in Buena Vista County. Bell was a significant character in early county history.

Back panel: *Linden Grove*

This panel will focus on the town of Linn Grove. It began in 1866 when miller Moses Sweet constructed a dam and gristmill on the Little Sioux River. In 1881, the Northwestern Railroad built a line through the northern part of Buena Vista County and established a station and depot in Linn Grove. The railroad spurred development, and soon several businesses were established. This panel should be illustrated with historic photos of the mill, depot, and others that celebrate the town's history.



Wittrock Indian Village State Preserve

This site is the only archaeological attraction accessible to byway visitors. The site should be developed as an interpretive experience. Currently the village site is identified with posts set to mark the boundary of the palisade walls.

Entrance Recommendation

A sign placed at the entrance to the recently acquired preserve access road would welcome visitors to the site. A small parking area near the entrance with barriers surrounding it would prevent vehicle access to the preserve. Visitors could walk the road to the preserve.

Front panel: *Archaeology of Wittrock*

This panel will interpret the archaeological studies conducted at the site and will include photos of the excavations and materials found and illustrations of the village.



Entrance Sign Concept Design

A prominent entrance sign at this rural archaeological landmark will be reassuring to visitors.

Back panel: *The Mill Creek Culture*

This panel will interpret the Mill Creek Culture as an agrarian society living in permanent villages. A map will illustrate the group's extent in northwestern Iowa and show village sites on local rivers. Interpretation should include speculation about the purpose of the defensive perimeter and how that might be a clue to the departure of the culture.



Sign photos courtesy of primghar.com



A marker mounted on a stone identifies the village. The current sign with text routed in all caps is difficult to read. The text is informational and not interpretive. Replace this with a two-panel interpretive kiosk.



This wayside exhibit along the Illinois Route 66 byway represents the period of significance for the road. (Schmeckle Reserve Interpreters design)

WAYSIDE EXHIBITS

Wayside exhibits are interpretive panels placed along roads and trails that assist visitors in understanding the stories associated with resources and landscapes on the byway. Photos, illustrations, and concise messages attract and hold a visitor's attention as they discover the significance of a site.

Wayside exhibits are an effective way to communicate with visitors because they are always on the job regardless of weather or season. When properly placed near resources, they can quickly answer questions that visitors have about the

resources. They are a direct and non-intrusive method to connect people with significant stories along the byway.

The best wayside exhibits present messages that are visual, concise, active, and multisensory. See the "Creating an Effective Message" tint box below for best practices when designing signs.

Wayside exhibits should tell site-specific stories that bring a resource to "life" and place it into context, connecting it to universal concepts that are relevant to everyone.

Current technologies offer numerous possibilities for enhancing interpretive panels. They can be cut into innovative shapes. Push-button audio devices with digital recordings can tell captivating stories using firsthand accounts and sound effects. Tactile elements, such as models and textures, can be added to provide a touch experience. QR (quick response) codes can be incorporated for quick access to websites and multimedia content.

Creating an Effective Message

1. Communicate visually with photos and graphics.
2. Most visitors will look at an interpretive panel for only a few seconds. Apply the 3-30-3 Rule, a hierarchy that provides 3-second, 30-second, and 3-minute message levels.
3. Use simple words, concise sentences, and short paragraphs.
4. Describe with concrete nouns and active verbs. Avoid adverbs and adjectives.
5. Relate to the reader with familiar terms, personal pronouns, metaphors, and quotes.
6. Provide multisensory involvement with tactile and audio devices.

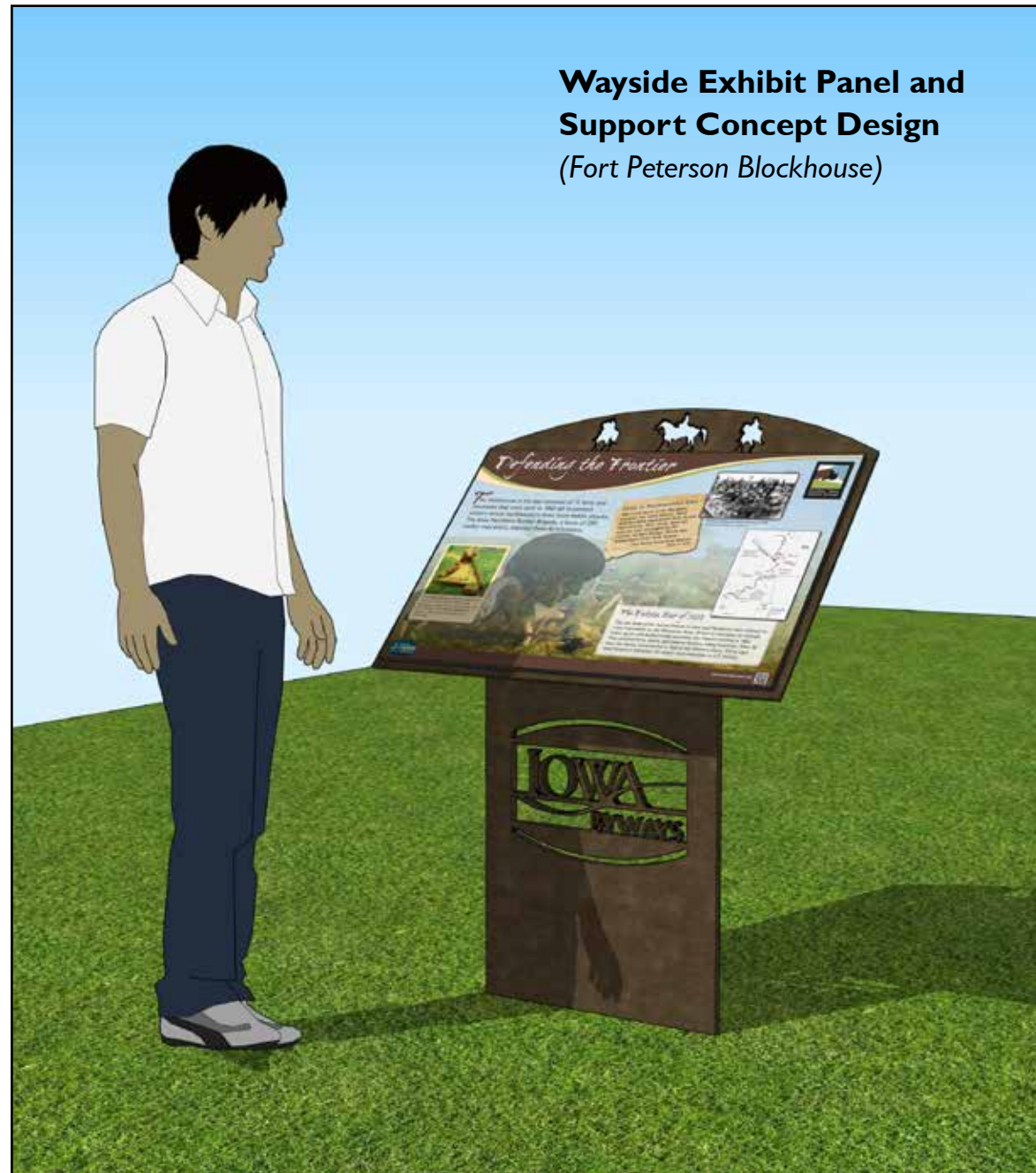
Wayside Exhibit Design Recommendations

Wayside exhibits developed for the Glacial Trail Scenic Byway should incorporate the following design elements:

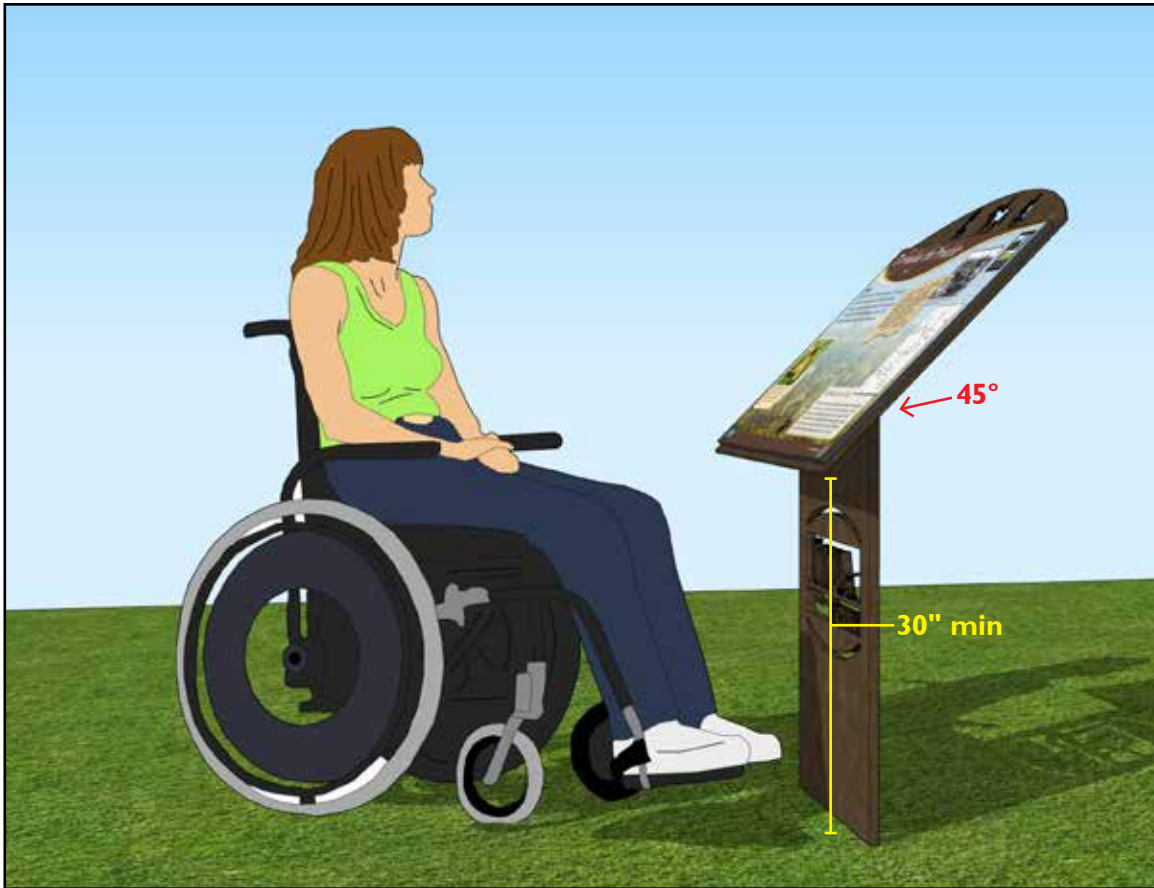
Unified design

Structures should match the same style as the experience hubs so they are readily identified as part of the byway's family of signs. This includes:

- Weathering steel supports with thematic cut-out graphics. The top arch should have unique images based on the theme of the panel (soldiers, settlers' wagons, meandering rivers). The Iowa Byways logo should be used on the vertical steel support to unify with the 2015 Conservation Innovation Grant (CIG) wayside exhibits.
- Replication of colors, font styles, and graphic elements on the sign panels.
- Glacial Trail Scenic Byway and Iowa Byways logos prominently displayed.
- Website address and QR code to connect visitors to online content.



Wayside Exhibit Panel and Support Concept Design
(Fort Peterson Blockhouse)



Well-designed wayside exhibits provide access for everyone.

Panel materials

Like the recommended experience hub panels, high-pressure laminate (HPL) material is a durable plastic material that allows for full-color, high-quality images and text. It is resistant to graffiti and scratches. Fabrication companies typically offer a 10-year warranty against fading and delaminating.

Size

Wayside exhibit panels should be large enough to be noticeable and easily read, but not too large that they detract from the landscape. A recommended size of 24"-by-36" replicates the CIG panels already installed.

Installation

Wayside exhibit panels should be installed at a 45-degree angle to the vertical, which offers the best view to a standing or sitting person. They should be placed high enough above the ground, a minimum of 30 inches at the lowest edge, to allow a person in a wheelchair to get close.

Wayside exhibit concept design
 (Fort Peterson Blockhouse)

Defending the Frontier

This blockhouse is the last remnant of 11 forts and stockades that were built in 1862-63 to protect settlers across northwestern Iowa from Indian attacks. The Iowa Northern Border Brigade, a force of 250 cavalry volunteers, manned these fortifications.

Blockhouse

This triangle-shaped Fort Cherokee model shows a structure identical to Fort Peterson. The blockhouse is all that remains of the old fort. The Iowa Northern Border Brigade disbanded on January 1, 1864, and all fortifications were abandoned.

Panic in Northwestern Iowa

The excitement in the Northern counties has been intense. Many families have abandoned their farms, their houses, their stock, their all, and are now encamped in the vicinity of Fort Dodge. Terror has driven them from their homes.

—Des Moines Daily State Register
 Sept. 6, 1862

Residents fleeing the Dakota Uprising of 1862 gathered for dinner on a prairie.

MINNESOTA AREA OF DAKOTA WAR

IOWA NORTHERN BORDER BRIGADE

The Dakota War of 1862

The vast lands of the Santee Dakota in Iowa and Minnesota were reduced to a tiny reservation on the Minnesota River. Driven to starvation by corrupt Indian agents and broken treaty promises, the Dakota revolted in 1862. They attacked forts, towns, and pioneer families, killing hundreds. After 36 days, the Santee surrendered or fled to the Western plains. Thirty-eight were hanged in Mankato, the largest mass execution in U.S. history.

IOWA BYWAYS

www.iowabyways.org

Wayside exhibit panel concept design (Fort Peterson Blockhouse)

Defending the Frontier

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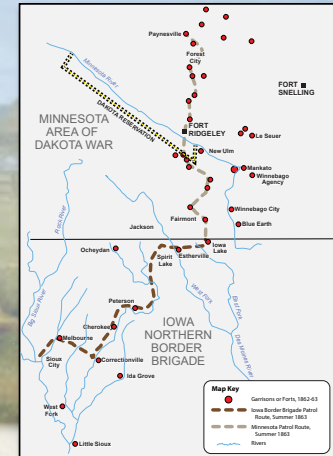
Residents fleeing the Dakota Uprising of 1862 gathered for dinner on a prairie.



This triangle-shaped Fort Cherokee model shows a structure identical to Fort Peterson. The blockhouse is all that remains of the old fort. The Iowa Northern Border Brigade disbanded on January 1, 1864, and all fortifications were abandoned.

Background image: Santee warriors attacked New Ulm, Minnesota, where 2,000 residents and farmers had barricaded themselves. Though not defeated, the town mostly burned to the ground.

"Attack on New Ulm" 1904 painting by Anton Gag



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The vast lands of the Santee Dakota in Iowa and Minnesota were reduced to a tiny reservation on the Minnesota River. Driven to starvation by corrupt Indian agents and broken treaty promises, the Dakota revolted in 1862. They attacked forts, towns, and pioneer families, killing hundreds. After 36 days, the Santee surrendered or fled to the Western plains. Thirty-eight were hanged in Mankato, the largest mass execution in U.S. history.



www.iowabyways.org



Recommended Wayside Exhibit Sites



Fort Peterson Blockhouse

1. **Inkpaduta's Conflict:** This panel can interpret the factors that led to Inkpaduta's 1857 attacks on Peterson area settlers and tell specific stories about the raids on the Waterman, Kirchner, and Mead cabins before the Spirit Lake Massacre.
2. **Defending the Frontier:** This panel can interpret the Dakota Conflict of 1862—the factors that caused it and the history of the brief conflict along the Minnesota River. The terror spread to northwestern Iowa and led to the establishment of the Iowa Northern Border Brigade. Text, maps, and illustrations tell the history of the Fort Peterson Blockhouse.



Prairie Heritage Center Overlook

1. **Prairie Schooners:** Placed next to the covered wagon and oxen exhibit, this panel will interpret how the first settlers came to the Peterson area, including specific stories about the Hannibal Waterman family. Include a map of their route across the Iowa prairie and an illustration of what pioneers brought with them.
2. **Carved by the Glaciers:** The overlook mound is an ideal location to interpret why the Little Sioux River valley landscape is so different from the rest of northwestern Iowa. The interpretation would focus on the messages from Sub-Theme 1—how the Des Moines Lobe diverted the proto-Little Sioux River to Waterman Creek, releasing cascades

of meltwater that carved out the valley before you.

3. **Hanging Valley:** Also on the overlook mound, a viewing tube next to this wayside exhibit would focus on the “hanging valley” at Waterman Prairie Wildlife Area. Interpretation focuses on how it was formed and, as Drake Hokanson describes it, as the “ghost of the era of wall-to-wall floods of meltwater.” An inset on the panel invites visitors to explore Waterman Prairie and view the Hanging Valley.



Two viewing tubes, similar to these at Tijeras Pueblo Historic Site in New Mexico, will focus attention on the Hanging Valley. Place one tube at a height for wheelchair users and children and one for a standing adult.



Welcome center touch-screen computer exhibits, like this one at the Great River Road Visitor Center in Prescott, Wisconsin, provide trip planning and interpretive opportunities for byway travelers.

WELCOME/VISITOR CENTER EXHIBITS

Visitor information centers are important sites to display byway information. In addition to brochures and booklets, a touch-screen computer and associated display can catch the attention of travelers and help them plan trips to byway attractions.

The most active and public visitor information facility on the Glacial Trail Scenic Byway is the **Prairie Heritage Center** near Peterson. It is open year-round Wednesday-Friday, 9 a.m.-4 p.m., and Saturdays and Sundays, 1-4 p.m.

It is recommended that this become the **official welcome center** for the byway, and that staff be trained to answer questions specifically for byway travelers. This is also an optimal location for an interior exhibit featuring the byway in an interactive format.

An interior exhibit also could be placed in the **Sanford Museum and Planetarium** in Cherokee. Though the museum is about 12 miles from the byway, it also has regular hours and is open year-round from 9 a.m. to 5 p.m. weekdays and noon to 5 p.m. weekends. The museum interprets significant stories

about the byway, especially the geologic and archaeological sub-themes.

Most other locations on the byway are less desirable because they have limited hours or are not places where travelers would seek byway information.

The purpose of the byway exhibit is to make visitors aware of the byway and its attractions, while facilitating impromptu planning. The exhibit also introduces the “byway brand” through its logo and characteristic fonts and colors.

Design Recommendations

The exhibit will be designed small enough to fit inside welcome centers where space is limited, yet large enough to attract attention.

- The exhibit is topped with sculptural metalwork similar to the experience hub kiosks.
- A large map of the byway placed below the color header introduces the byway and its main attractions. The map panel will provide a short summary of the byway and show a “YOU ARE HERE” symbol. Iconic photos of landscapes and attractions encourage further discovery.

- A rack installed next to the map holds byway brochures and travel guide booklets.
- A durable touch-screen computer housing provides digital information about the byway. For a unique perspective, the byway route can be placed over an air photo, and users can press arrows to fly over the landscape and discover more about each attraction as it appears.

A touch-screen computer is an ideal tool for an interior byway exhibit because:

- They take up little space in already crowded information centers.
- They are a durable, widely used technology.
- Information is presented with icons and symbols that are more universally understood than words.
- They are easy to use—reaching out and touching symbols on a screen comes naturally to many people.
- Visitors are empowered to seek their own information rather than asking staff who may be busy or simply are not informed about the entire byway.
- Information can be updated easily.





A steel silhouette on Route 66 in Elkhart, Illinois, re-creates the day when child star Shirley Temple stopped for lunch. A wayside exhibit interprets this notable event. (Schmeckle Reserve Interpreters design)

BYWAY ARTWORK

Art appeals to our senses and emotions in ways that other media cannot. Thoughts and feelings can be conveyed to many ages and learning levels. Byway themes can be reinforced and embellished by creative artwork.

The media may be three-dimensional such as a sculpture, or two-dimensional such as a mural. Public art is usually made to last, but may be ephemeral to celebrate a community event or simply a form of artistic expression such as a chalk or sand painting. Public art is for

everyone, as it is a form of collective community expression. It is placed strategically for viewing by a large number of people. It tends to be large-scale and visible from a distance.

Scenic byways invite travelers into their region and communities. Artwork can offer visitors insights into the history and culture of those communities and provide a welcoming aesthetic quality to streetscapes.

Sculptures

Since sculptures occupy space, we interact with them differently than with two-dimensional art. They are tactile—you can feel their various textures and forms—and their look changes through different seasons and viewing perspectives. Sculptural pieces can be realistic or abstract concepts that express a community's sense of place. They can incite curiosity, like the mammoth metal sculptural piece installed in 2017 at the Prairie Heritage Center.

Sculpture Recommendations

Life-size human and animal silhouettes cut from weathering steel can be an affordable way to personalize



A mammoth metal sculpture installed in 2017 at Prairie Heritage Center will also have a nearby wayside exhibit interpreting this mammal that once roamed the prairies.

Weathering Steel Silhouette Concept Designs

the landscape and call attention to compelling byway stories.

The **Waterman Prairie** parking area on Wilson Avenue provides access to a memorable prairie experience. Visitors can immerse themselves in a prairie in full bloom, look for grassland birds, and view the Hanging Valley glacial remnant. A two-panel kiosk recommended here will provide a map for orientation to the site and interpretation about prairie habitats. A full-size weathering steel silhouette of a bison would be a reminder of the many wildlife species that have lived on prairies throughout history.

At **Fort Peterson Blockhouse** in Peterson, a significant chapter in the area's history is represented by this last remaining remnant of the Northern Iowa Border Brigade and its attempts to protect the border and settlers from possible Indian attacks. The blockhouse is not often open to the public, and other than a stone marker, there is little interpretation of these historical events. Two wayside exhibits recommended here will tell the story of the border brigade. A nearby silhouette statue of a volunteer soldier will add a human element to this site and further convey its significance.

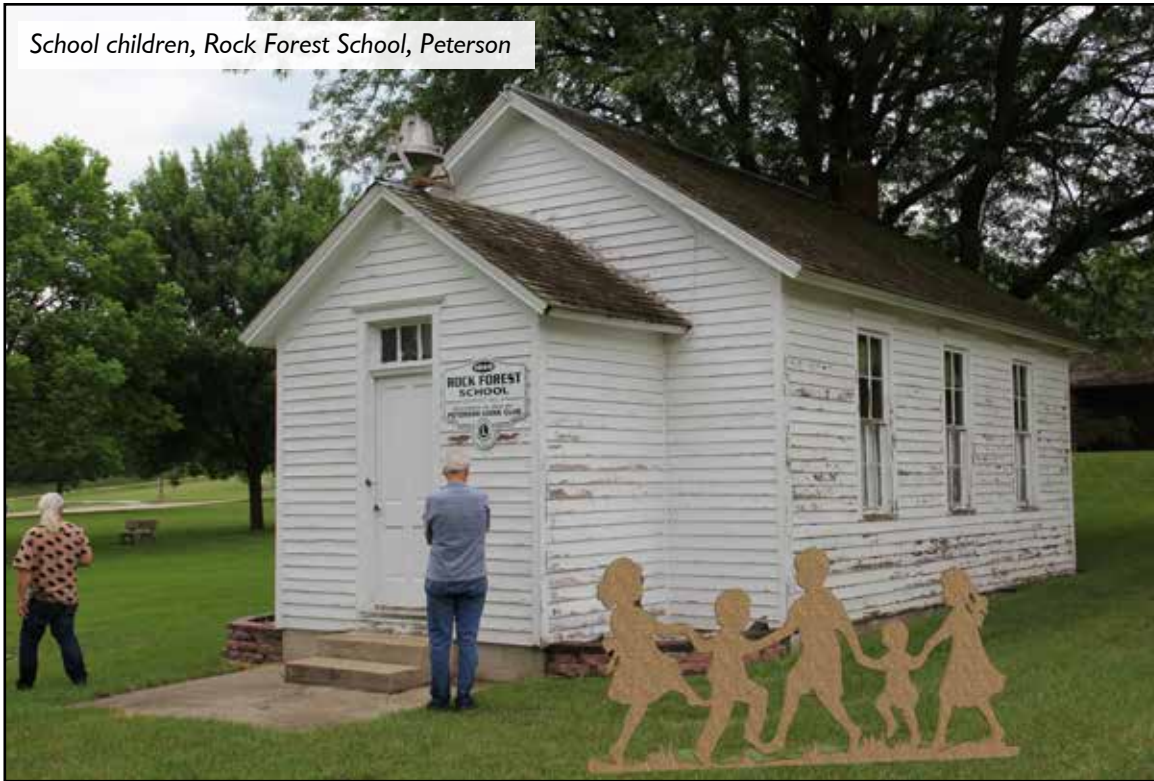
Waterman Prairie, Wilson Avenue entrance



Soldier at the Fort Peterson Blockhouse



School children, Rock Forest School, Peterson



School children at play at **Rock Forest School** in Jacob Kirchner Memorial Park in Peterson will create a sense of liveliness reminiscent of the era of one-room country schools.

Wayside exhibits associated with each of the statues would interpret the stories they represent with engaging text and images.

Murals

Many towns have historic buildings with blank walls, either on the end of a block or where an adjoining structure was torn down. These large exteriors can be converted into artistic expressions of the community's sense of place.

Murals can provide simple decoration, but more often they illustrate local history or provide social commentary. These "through-the-windshield" interpretive pieces are a creative way to make the past come alive or to introduce the personality of a community.

Existing Byway Murals

A mural on a brick building on the byway route in Peterson celebrates the town's founding in 1856 and its 150th year in 2006. The mural depicts the town's history, including settlers arriving



A mural in downtown Peterson marks the town's 150th year.

by covered wagon, the mill on the Little Sioux, the downtown, and the agriculture of the area.

A mural in Primghar also celebrates that town's history, illustrating the unique way the town got its name.

Mural Recommendations

Glacial Trail Scenic Byway communities should be encouraged to identify "canvas" walls suitable for murals. Significant historical events that shaped the community are relevant subjects for murals.

The **Linn Grove Post Office** has a wall suitable for a mural. The wall is ideal to interpret the town's history, including the meaning behind the town's name and the importance of the gristmill on the Little Sioux River.

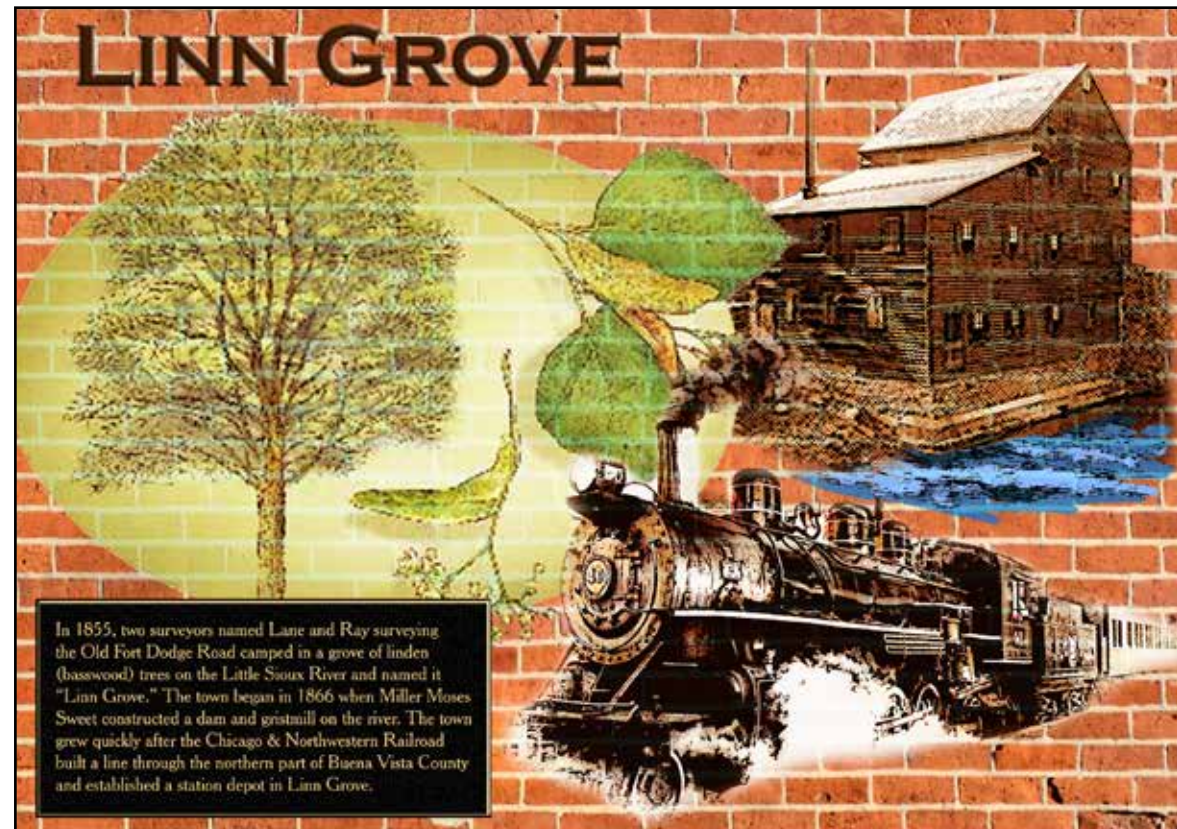


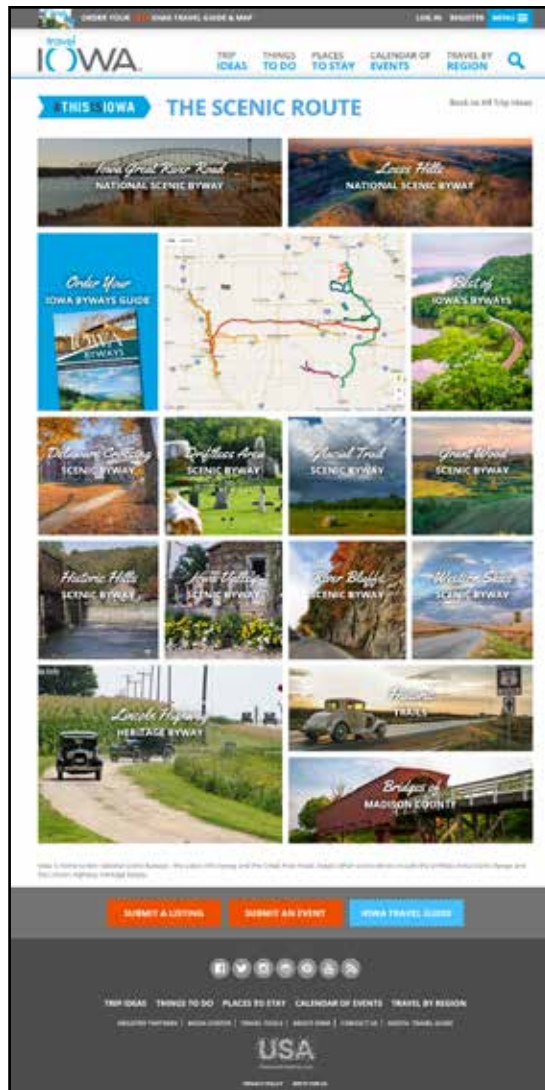
A blank brick wall on the side of the Linn Grove Post Office would be ideal for a mural.



A mural in Primghar illustrates how the town got its name. Portraits of each of the town's founders are connected to each letter in the town's name. The first letters of the founders' names were put together to create "Primghar."

Mural Concept Design (Linn Grove Post Office)





Iowa Byways are featured as part of the Travel Iowa website.

ONLINE MEDIA

Since most travelers today use online resources for planning trips, a strong, well-developed online presence is imperative for sharing information and interpretive messages about the Glacial Trail Scenic Byway.

Glacial Trail Scenic Byway Website

The Glacial Trail Scenic Byway has an online presence through the statewide Iowa Byways website (iowabyways.org), which now redirects to a Travel Iowa web page focused on the state's scenic byways. Clicking the Glacial Trail Scenic Byway photo square opens the byway's specific website (www.traveliowa.com/trails/glacial-trail-scenic-byway/4/).

The Glacial Trail website, shown on the page to the right, has a clean and modern design that follows the style of the overall Travel Iowa website. Several striking photos feature the landscape and attractions of the route. A concise narrative provides a summary of the byway, with a link to a PDF map of the route. Contact information is obvious at the top of the page. An online Google Map shows the byway route. Several

attractions along the byway are featured, with links to their descriptions in the Travel Iowa database.

From a traveler's perspective, the existing website has a few limitations:

- It does not share the unified design standards established for the byways program that would give it a sense of identity (no byway logo or colors).
- Many of the byway attractions are not included in the Travel Iowa database.
- It does not provide links to byway-specific social media sites, such as Facebook.
- It does not provide byway-specific travel options, such as thematic itineraries.

In conjunction with Iowa's other byways, the Glacial Trail Scenic Byway should consider redesigning its online presence. This would enhance the user experience and create opportunities to interpret the cultural and natural stories of the byway, using the overall theme and sub-themes in this master plan.

ORDER YOUR TRAVEL GUIDE & MAP MY LOG IN INDUSTRY MENU

travel IOWA

TRIP IDEAS THINGS TO DO PLACES TO STAY CALENDAR OF EVENTS TRAVEL BY REGION

Glacial Trail Scenic Byway

ADD TO MY

rebecca.castle@goldenhillsrccd.org
712.482.3029



COMMUNITIES

Linn Grove
Peterson

INFORMATION

TRAIL USES: Driving
LENGTH: 36 miles
SURFACE: Paved
See All



The existing Glacial Trail Scenic Byway web pages have a clean and modern design that unify with the rest of the Travel Iowa pages. However, they do not reflect the branding of the Iowa Byways program, which reduces the overall visual identity that ties byway media together.

5 Stops on the Glacial Trail SCENIC BYWAY



Download a PDF map of the Glacial Trail Scenic Byway.

HOTELS

InnSpiration B & B - Linn Grove

ATTRACTIONS

Buena Vista County Conservation Park - Peterson
Dog Creek Park - Sutherland
Historic Peterson - Peterson
Jan's History Barn - Peterson
Larson Lake - Aurelia
Linn Grove Dam Area - Linn Grove
Prairie Heritage Center - Peterson

BREWERIES

InnSpiration Vines & Wines - Linn Grove



The Glacial Trail Scenic Byway website should accommodate the smaller screens of mobile devices. The messages and photos are reduced to a single column. The navigation menu is hidden under the brown and white icon in the upper left, which is familiar to smartphone users.

Website Design Recommendations

The **website design** should be updated to encourage discovery and reflect the unified design standards recommended in this plan. This would include:

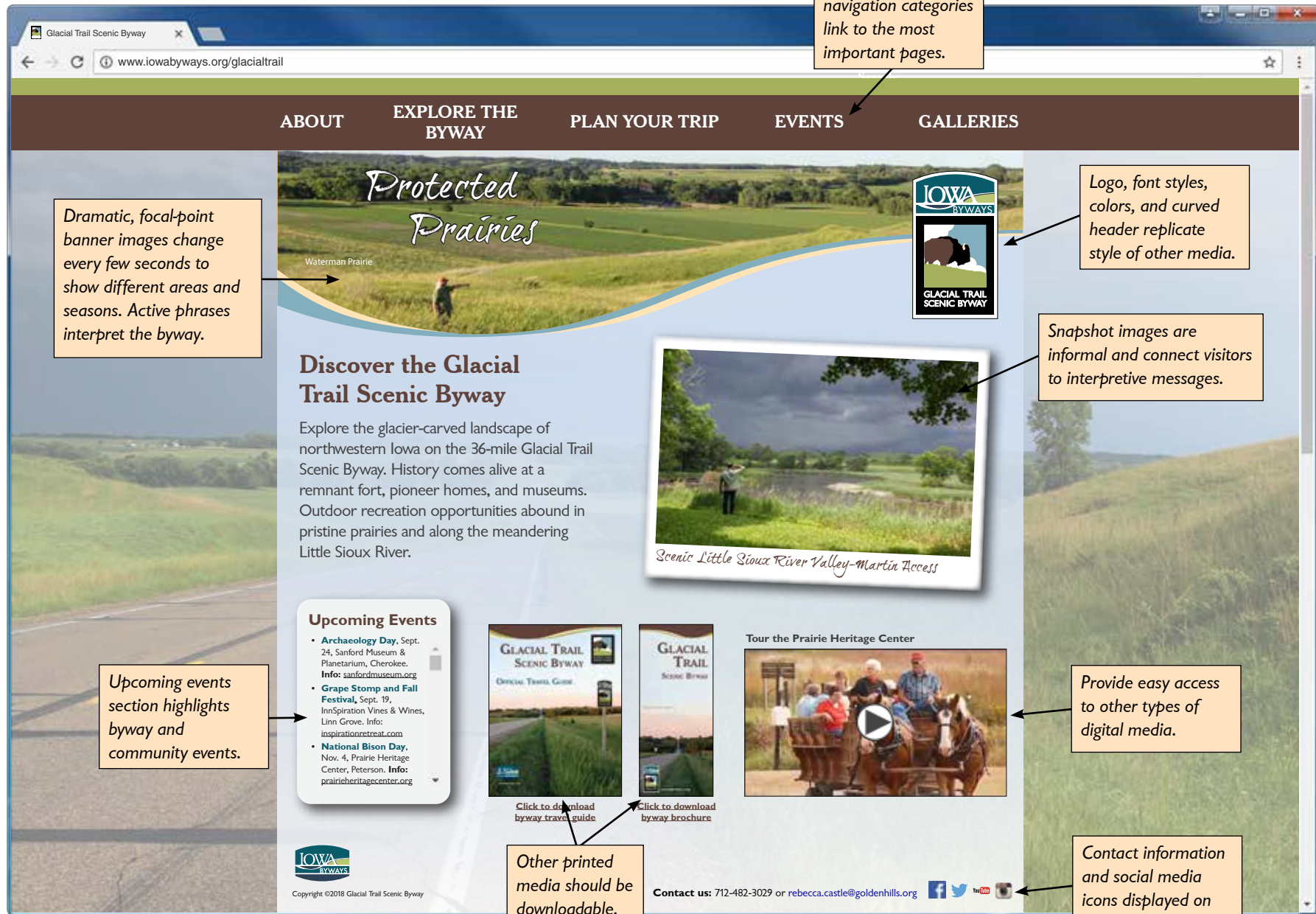
- Unified font styles, colors, and graphic elements (like the curved header) that reinforce the visual identity of all byway media.
- Dramatic and engaging photographs of byway scenery and attractions.
- Banner images on the home page that change every few seconds to showcase the variety of byway resources during the seasons.
- Links to byway-specific social media options, such as Facebook, Twitter, YouTube, and Instagram, on each page to encourage sharing and interaction.
- Contact information on every page so that visitors can ask questions.
- Other byway media, such as on-site experience hubs, wayside exhibits, audio tour sites, and brochures, to encourage further investigation.
- Responsive layout and design for viewing on smartphones and other mobile devices.

Website Navigation Recommendations

The **website navigation** should be specific to the Glacial Trail Scenic Byway and include links to pages that are most important to visitors planning their trip. Main navigation links include:

- **About:** Include a general overview of the byway, a brief history of its development, a list of byway board members, and contact information for more information.
- **Explore the Byway:** Includes links to explore more about each of the byway communities and the resource categories (scenic and natural attractions, historic and archaeological attractions, cultural attractions, and recreational destinations).
- **Plan Your Trip:** Includes an interactive byway map to be used for planning and while driving the byway. Different icons would show the location of attractions and categorize them by topic—when a user clicks on an icon, they see a concise description and photo of the attraction, with a link to a more detailed description. This section also can include suggested itineraries based on topics (attraction categories).

Glacial Trail Scenic Byway Website Concept Design



Clear and obvious navigation categories link to the most important pages.

Dramatic, focal-point banner images change every few seconds to show different areas and seasons. Active phrases interpret the byway.

Logo, font styles, colors, and curved header replicate style of other media.

Snapshot images are informal and connect visitors to interpretive messages.

Upcoming events section highlights byway and community events.

Provide easy access to other types of digital media.

Other printed media should be downloadable.

Contact information and social media icons displayed on every page.

- **Events:** Includes news stories and events that are specific to the byway or its communities. It is important to keep this updated to show that the byway is actively supported.
- **Gallery:** Links to various photo albums showcasing the byway's communities and attractions by category.



The Glacial Trail Scenic Byway Facebook page includes regular postings and updates.

Social Media

In a Google Travel Survey of 2014, over 83% of the 3,500 respondents cited social networking as a source of inspiration in their travel planning.

Glacial Trail Scenic Byway already uses Facebook to share information about current events such as festivals, special sales, and newsworthy happenings. It currently has about 215 likes. Efforts should be made to increase the number of interpretive posts (highlighting significant historical and natural stories along the byway), which can help boost the number of followers.

Additional social media opportunities for Glacial Trail include Twitter (text messages limited to 140 characters), YouTube (sharing videos), Instagram (sharing square photographs with filters applied), and Pinterest (“pinning” images to themed bulletin boards).

Social media sites require time and considerable effort to keep them current and pertinent. Their value is in the instantaneous communication with a large audience at a minimal expense.

MOBILE DIGITAL MEDIA

People are increasingly using smartphones and electronic tablets. In 2018, about three-quarters of adults (77%) owned a smartphone, up from just 35% in 2011 (Pew Research Center). About 53% of adults own a tablet computer, up from 10% in 2011.

Perhaps even more telling is that 94% of people between 18 and 29 own a smartphone, along with 93% of people living in households that make at least \$75,000 annually (2018 Pew Research Center).

In addition to the increased use in smartphones, it is important to note that use of other devices such as computers is remaining steady or declining, especially among younger adults. Smartphones have become the all-purpose technology. The implications for communicating about byways are staggering.

Travelers expect to stay connected and find information through social media sites, Internet searches, GPS navigation, apps, and other technologies that are constantly evolving. The increased use of personal mobile devices opens up a world of opportunities for sharing interpretive messages.

Audio Tours

Audio tours have always been an effective method for interpreting messages along a scenic byway. Interpretive audio provides short clips of narration, sound effects, and music themed to specific sites along the byway.

Benefits of audio tours include:

- Hearing a human voice adds a personal character to the tour, something difficult to accomplish with other forms of media.
- Music and sound effects are powerful connections to different places and times.
- Travelers on scenic byways often have long stretches of time driving from one point to another, an ideal situation for listening to interpretive audio messages.

Audio tours have evolved from cassette tapes and CDs to personal cell phones and mobile devices, which allows for sharing with a much wider audience. Several forms of distribution are available, each with its own advantages and disadvantages.



Cell phone tour for “Looking for Lincoln” sites in the Springfield, Illinois area.



The Freedom Trail Audio Tour in Boston, Massachusetts can be downloaded to a mobile device prior to the visit.

Cell Phone Audio Tours

A traditional cell phone tour is a system where visitors call into a centralized phone number, enter a specific tour code, and listen to the interpretive message.

Benefits of a cell phone tour:

- The vast majority of U.S. adults today own a cell phone, 95% according to 2018 Pew Research Center data. The technology is very accessible to most people.
- It is easy to update audio messages in a centralized database as resources and events along the byway change.
- It allows for tracking visitors for marketing purposes. How many people are accessing messages? Which messages are they accessing? Where are they accessing them from?

Limitations of a cell phone tour:

- It requires a cell phone signal in order to work. Rural areas away from cell towers are not the best places for inclusion in the tour.
- Requires monthly hosting fees.
- May cost the user minutes depending on their cell phone plan.

Podcasting/Downloadable Tours

Another method for distributing audio tour files is offering them online for users to download. This can be done through a podcasting feed (a user subscribes for automatic downloads) or posted on a website. Once downloaded, the audio files are transferred to a personal audio device, like an iPod, MP3 player, smartphone, or tablet.

Benefits of a downloadable audio tour:

- Messages can be downloaded before the trip for planning purposes.
- Depending on the size, files can usually be provided on an existing website for free.
- Messages can be recorded in-house and easily updated on the website.

Limitations of a downloadable tour:

- Users must be knowledgeable about how to download and transfer files.
- Audio and video files can take up large amounts of precious space on a mobile device, which may limit their use.
- Users typically need to plan ahead to download the files prior to the trip; not a good choice for serendipitous travelers.

Audiovisual Tour Apps

Using the power of personal smartphone and tablet devices, audiovisual tours combine sound, images, video, text, and interactive components to create rich interpretive experiences. They are ideally suited to byways, providing directions to nearby attractions and offering interpretation during long drives.

Mobile Tour Websites

These websites specifically incorporate design that is more functional on the smaller touch screens of smartphones and tablets. When used for guided tours, they can blend text, photos, sound, and interactive buttons and links to other sites.

Benefits of a mobile tour website:

- Provides an interactive experience.
- Functions with all types of web-enabled mobile devices; just requires an Internet browser.
- No need to download files, as everything is streamed directly online.
- Relatively easy to create and update using standard website editing tools.
- Services can be added to the website to track visitor usage.

Limitations of a mobile website tour:

- Necessitates access to the Internet via a strong cellular signal or a Wi-Fi connection.
- Website programming is limited by layout, responsiveness, and tools. They don't always appear as polished or react as efficiently as native apps.
- Design must be developed for a variety of Internet browsers, since all display content slightly different.

Mobile Tour Apps

Apps are digital programs that are downloaded and installed directly to a mobile device. They are accessed through company-specific online stores like the Apple App Store and Google Play Store. Like mobile websites, apps use text, photos, and audiovisual components in engaging, interactive ways.

Benefits of a tour app:

- Generally much faster and more responsive than web-based media.
- Encourages interaction.
- Provides almost limitless options for design and techniques.



The Illinois River Road mobile tour website at illinoisriverroad.org/mobile includes customizable searches for interests by community and a GPS-enabled "What's Near Me?" feature.



Alabama's Coastal Connection Scenic Byway has a free app that includes videos, events, a list of attractions, and a byway map.



Young visitors at J.N. “Ding” Darling National Wildlife Refuge scan QR codes on signs to view videos along an innovative “iNature Trail.”



Trail users on a bike trail in Rapid City, South Dakota use smartphones to scan QR codes on interpretive panels.

- Can use the GPS feature of a mobile device to trigger site-specific messages or to list attractions near the user’s current location.
- Does not require Internet access to run (although some features of the app may require online access).

Limitations of a tour app:

- Apps must be downloaded and installed onto a mobile device. Depending on content, this may take up a considerable amount of space.
- Since they are specific to a mobile device’s operating system, multiple apps must be developed to reach the largest number of users.
- Apps must be updated every time a mobile device’s operating system is updated; high maintenance costs.

QR Codes

QR (Quick Response) codes consist of matrix bars that connect mobile devices to online media such as websites, audio messages, and videos. They can be added to publications, interpretive panels, or even objects and artifacts. A traveler uses the camera on their mobile device to scan a code with a QR reader app, which decodes the information and shows the online content.

Benefits of QR Codes:

- Quickly connects mobile devices to online resources without needing to type a lengthy website address.
- Can be created and printed on media for free.
- Online resources can easily be developed, changed, or updated at minimal cost.
- Different QR codes can be generated to link to different messages. A wayside exhibit might have one QR code for adults and one for children.

Limitations of QR Codes:

- Requires that a QR reader app be installed on the mobile device, an extra step for users.
- QR codes require access to the Internet via a cellular signal or Wi-Fi.
- Traditional black-and-white QR may not fit the media design.
- Once created, a QR code will always link to the online address that it is encoded with. If the online address changes, the QR code on all media also will need to be changed.

Mobile Digital Media Recommendations

The rich human stories of the Glacial Trail region can be brought to life dramatically for byway travelers with the help of sights and sounds that they can access on their own mobile devices. Once a dynamic audiovisual tour is developed, it can be distributed in several ways to reach the widest audience.

1. Create an Audiovisual Byway Tour

An audiovisual tour is an effective technique for immersing travelers in the stories of the byway. Some ideas for effectively developing the tour include:

- **Set a clear theme for the tour:** This helps in collecting and organizing stories and interviews. For example, the rich prehistoric stories of this region are ideal for an audiovisual byway tour. The tour can bring life to a landscape once occupied by Mill Creek Culture fortified villages but now showing little evidence of this significant archaeological history. As travelers drive past sites such as the Litka ridged field, narration and sound effects re-create the time more than 1,000 years ago when Mill Creek Indians raised maize in terraced fields, becoming Iowa's first corn farmers.
- **Edit the messages down to their essence:** Choose messages that highlight universal concepts, those powerful meanings that we can all relate to, such as love, family, tragedy, survival, etc. These are the most compelling stories for visitors. Pioneer settlers' fear of impending raids by hungry and desperate Santee Sioux is a compelling story that draws our interest. Sitting in a one-room country school desk is something that is similar to many of our childhood experiences, but just different enough to be interesting.
- **Keep the messages short:** Leave the listener wanting to hear more and not less. Travelers have a schedule to keep; a three-minute message can seem like an hour under the wrong circumstances. Short, intriguing stories will hold a visitor's attention for more stops. Listeners are distracted by sun, wind, traffic, hunger, or their own travel companions, so concise dramatic stories are essential.
- **Record oral histories and interviews with people who have firsthand knowledge:** Authentic voices of people who lived and worked



Conceptual rendering of a Glacial Trail tour app that would provide a flexible way of sharing audio and visual interpretive messages with byway travelers.

along the byway add credibility and interest to mobile tours. For example, a descendant of the Waterman or Kirchner families could share family lore of these original settlers in O'Brien and Clay counties. An archaeologist can describe the significance of findings from excavations of Mill Creek Culture village sites.

- **Find music and sounds that contribute to the ambiance of the story:** Background music and sounds can create an emotional atmosphere that reinforces the authenticity. The sounds of a roaring sawmill in Peterson, the grunting of bison on the prairie, the echo of a steam engine whistle as the conductor calls out "Cherokee, next station!", or the sound of volunteer soldiers hard at work building Fort Peterson add a realism that places visitors into the story.
- **Create a narrative storyline:** Narrators are able to tell a story in a succinct way and to connect various oral interviews and histories in seamless ways. Alternating between several narrators, like a man and a woman's voice, reduces monotony and keeps the listener's attention.

2. Develop a Mobile Tour App

An app provides a great deal of flexibility for presenting the audiovisual tour. Messages can be offered in an audio or video format. If only audio is available, photos can be shown to enhance the message. The app should provide a map with tour locations indicated and be linked to the user's current GPS location. It can also be programmed to read a GPS location and automatically offer site-specific messages.

3. Develop a Mobile Tour Website

To maximize the audience base, a mobile tour website should also be created. Once an app is developed, it will be easy to take the text, audio, photos, and video from specific messages and make them available in other formats. A web page with links to the audio or video files provides options for users to either download the tour before their trip onto a mobile device or stream the messages while traveling (as long as a cellular signal is available).

4. Add QR Codes to media

Once a mobile tour website is up and running, QR codes can link directly to specific online attraction web pages and audiovisual tour files. A user simply scans a QR code with their mobile device, and interpretation will be streamed automatically. QR codes can be added to experience hub or wayside exhibit panels, travel guide and map publications, or welcome center exhibits to provide a more in-depth and interactive experience.

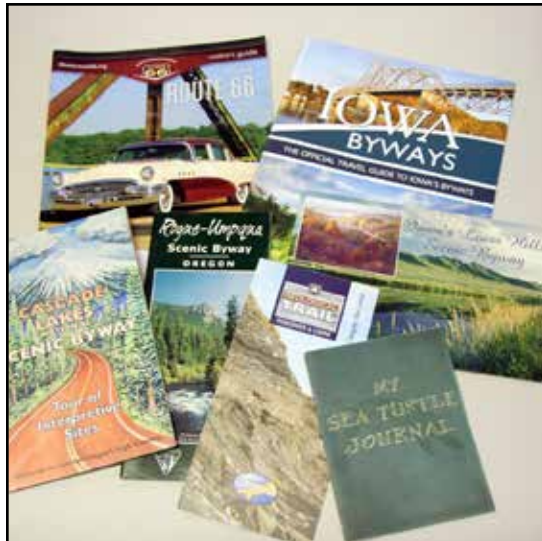


QR codes, like the sample above, can be added to existing media or made into separate signs. They link directly to the byway tour website.

PUBLICATIONS

Despite the rise in Internet and mobile device use, printed publications are still a core format for information and interpretation for byway travelers.

Many people prefer to use publications to navigate the byway and discover attractions. They are not limited by spotty cell phone coverage or low batteries. They have take-home value and serve as keepsakes of an adventure. They are often shared with others and have a longer life than digital media that pass fleetingly over a screen.



Interpretive publications can take many different formats, including brochures, maps, travel guides, and kids' activity booklets.

General Byway Brochure

Brochures are a cost-effective marketing tool for byways because they reach casual travelers who are unaware of the byway. There are many travelers who do not plan a road trip in advance but look forward to a serendipitous adventure as they travel a new route.

A byway brochure should not attempt to do more than stimulate people to access more in-depth information online or at welcome centers. It should be bold and concise with a simple, clean design and dramatic images that highlight significant attractions and other byway media.

The existing Glacial Trail Scenic Byway brochure already meets many of the goals of a basic byway brochure. As future printings are needed, the byway should consider updating the design with the following recommendations:

Design Recommendations:

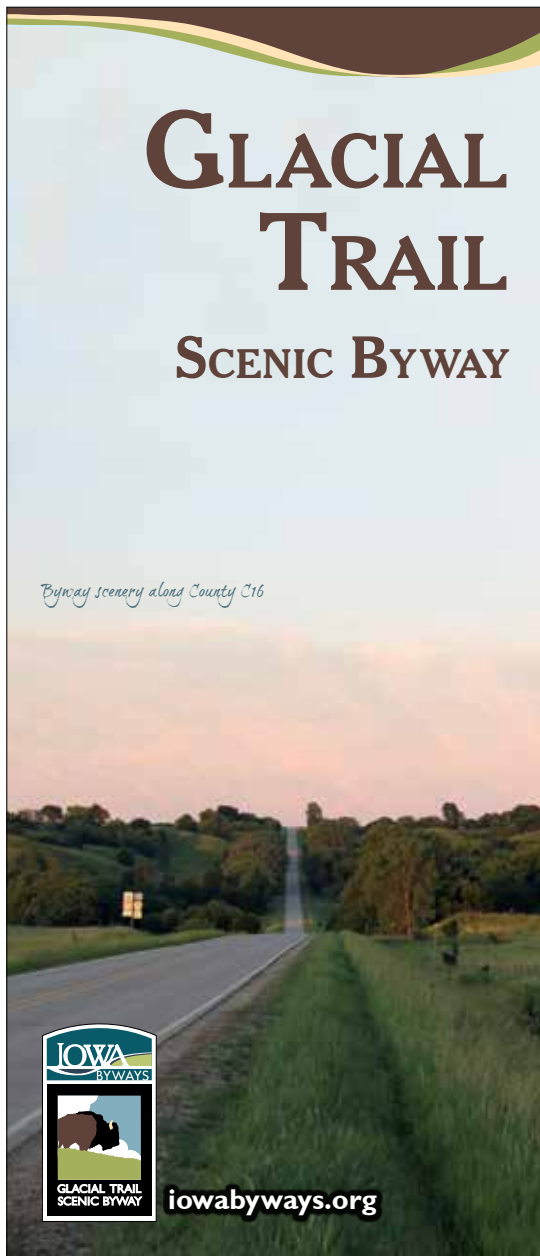
- **Size and folds:** an 11"-by-17" leaflet brochure with 6 panels per side (12 total) is an effective layout for introducing the byway and its resources.
- **Design elements:** Colors, font styles, and graphic styles should be unified with other byway media.

- **Front Cover:** Needs to be designed to be noticed in a rack with other brochures. An obvious "Glacial Trail Scenic Byway" title should be visible above the rack holder. A dramatic focal-point photograph that represents the byway encourages readers to open the brochure. The byway logo unifies with other media.

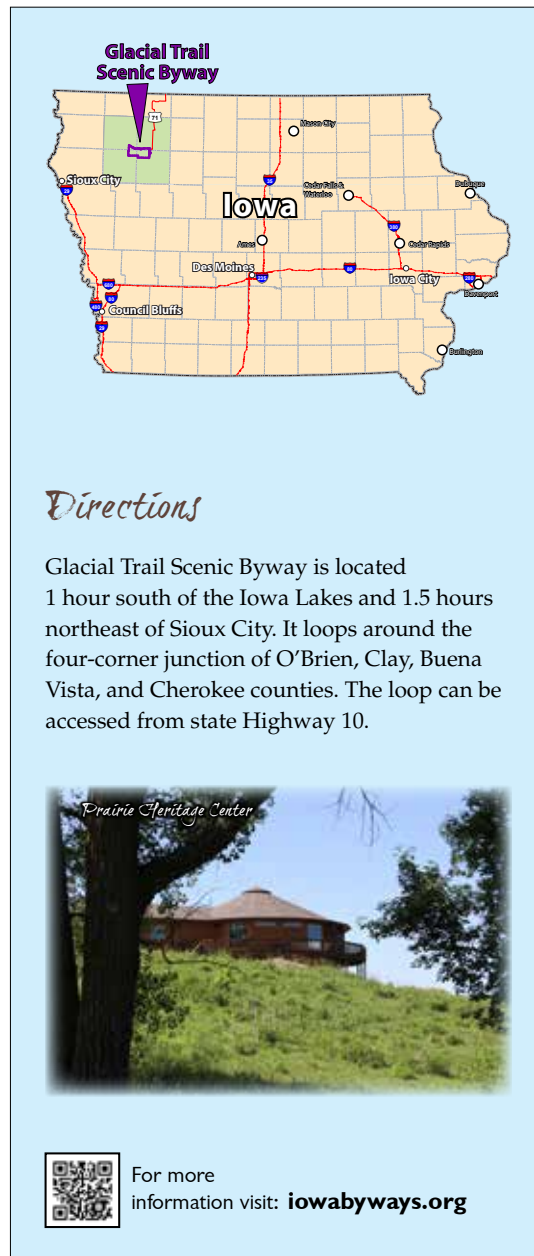


- **Back Cover:** The back cover is an ideal place to include a map of Iowa showing the location of the byway and major roads. Directions and contact information are also important elements.
- **First Reveal:** When a reader first opens the brochure, another dramatic image draws the eye to a concise and active description of the byway experience.

Glacial Trail Scenic Byway Brochure Concept Design



Front Cover



Back Cover



First Reveal



Bobolink

Prairies along the River

Start your byway visit at the **Prairie Heritage Center** to learn about the natural and cultural history of the valley. Outdoor exhibits include a small bison herd and a full-size "prairie schooner." Trails lead through the **Hannibal Waterman Wildlife Area** with its restored prairie and native oak groves.



Linn Grove Dam Park

Hike into nearby **Waterman Prairie Wildlife Area**, a key part of the **Waterman Prairie Bird Conservation Area**. Traverse the **Hanging Valley**, a relic of the Ice Age.

Dog Creek Park, Buena Vista Conservation Park and **Linn Grove Dam Park** provide hiking, canoeing, and other recreational opportunities.

Birdwatching at Waterman Prairie



Reflections of the Past

Explore the rich history of the Little Sioux River valley. Archaeologists have discovered prehistoric **Mill Creek Culture** villages on **Waterman** and **Brooke Creeks**.

In historic times, the Ioway and Dakota people flourished in the valley. Later, Euro-American homesteaders sought water and timber along this river, both absent in the surrounding prairie.

Wittrock Indian Village State Preserve, Philip Kirchner log cabin, Jacob Kirchner Memorial Park and old **Fort Peterson** are tangible connections to this past. **Sanford Museum** in Cherokee features exhibits on the history and archaeology of the region.



Sanford Museum & Planetarium

Fort Peterson Blockhouse



Discover Local Culture

Byway travelers can expect warm hospitality and small-town charm.

View local artwork at the stained glass enterprise **Bogenreif Studio**.

Sample wines and stay overnight at **InnSpiration Vines and Wines**.

Enjoy antique dolls at the **French Memorial Museum**.

Browse the whimsical and varied personal collections at **Jim's History Barn**.



InnSpiration Vines & Wines

Bogenreif Studios

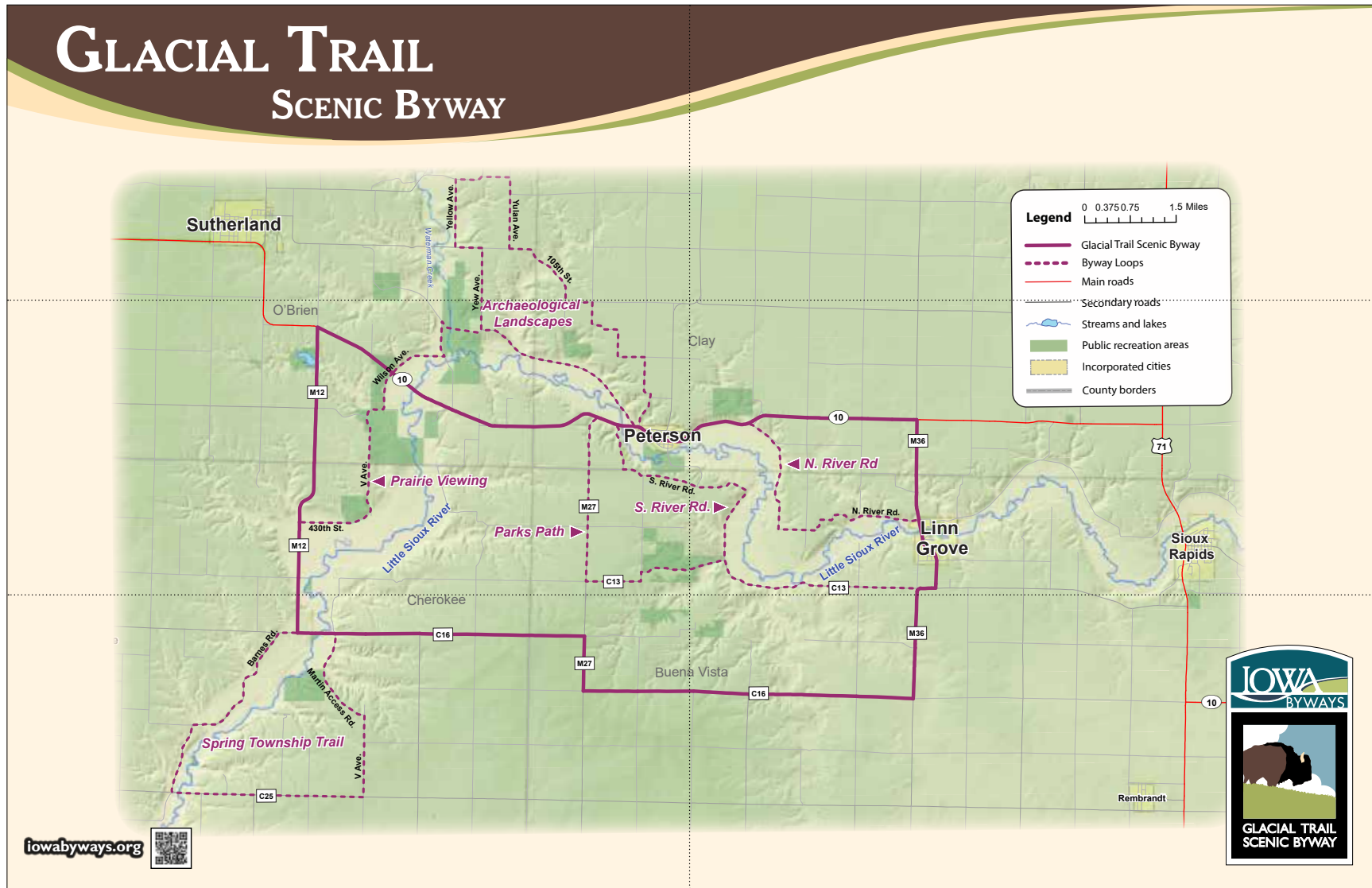


- **Second Reveal (3 panels):** As the reader continues to open the brochure, three adjacent panels will

highlight the natural, historic, and cultural resources of the byway. A description of the characteristic

features and some photos of key attractions will pique the visitor's interest.

GLACIAL TRAIL SCENIC BYWAY



- **Full Reveal Inside (6 panels):** The inside of the brochure features a map with the byway route clearly

marked. Major roads, communities, recreation areas, and other landmarks are identified. The map could also

include a list of primary attractions with corresponding location numbers, similar to the tear-sheet.

Byway Travel Guide

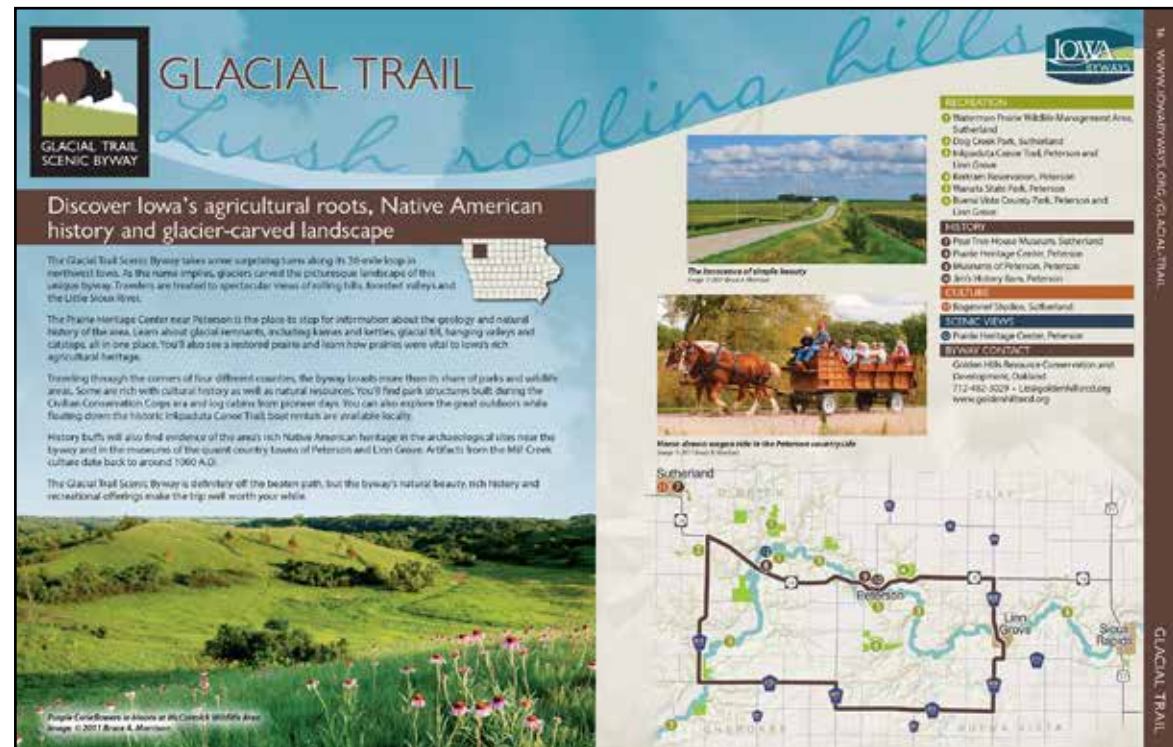
The Glacial Trail Scenic Byway is included in “Iowa Byways: The Official Travel Guide to Iowa’s Byways,” a full-color, 32-page booklet that measures 8.5"-by-11". The guide is organized by byway in a user-friendly format. The two pages devoted to the Glacial Trail byway (shown at right) feature a concise description of the route, photos, a general map, and a brief list of attractions.

Recommendations

While the existing travel guide is well-designed and easy to use, an updated and expanded interpretive travel guide specific to the Glacial Trail Byway would add greater depth to a traveler’s understanding of the byway and enhance wayfinding.

1. Organize the guide by community:

Byway visitors may have limited time, with perhaps only a few hours to explore the route. Organizing the byway guide by major communities will allow visitors to quickly and easily determine where to spend their time or to better understand the location where they have serendipitously arrived.



Glacial Trail Scenic Byway is featured in the “The Official Guide to Iowa’s Byways” booklet.

2. Theme the attractions within the community:

Many visitors have specific interests. Byway attractions within each community can be further grouped into the categories used in this plan: Scenic and Natural; Historic and Archaeological; Cultural; and Recreational. Themed itineraries that address visitor interests would provide focus to their trip-planning.

3. Design the guide to be consistent with Iowa Byways design standards:

The design should use the logos, fonts, and colors consistent with those described in this plan and with other interpretive media.

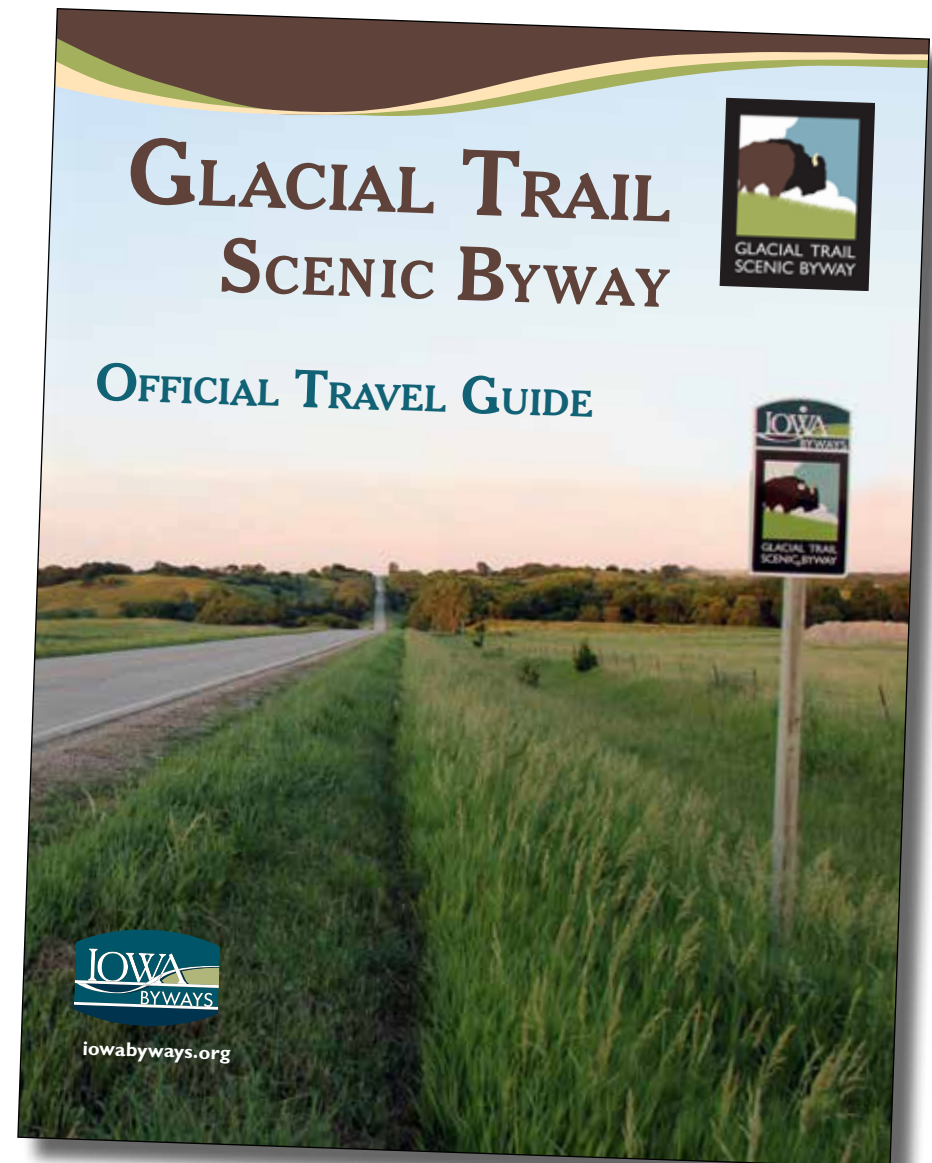
4. Include maps of attractions that are more than approximations of their locations: This would require adding specific roads that lead to each attraction. Currently, travelers must use an Iowa road map or GPS in addition to the Iowa Byways guide or tear-sheet map to locate many of the attractions, and even then it can be difficult.

In the revised guide, each community should be developed in the following format:

- An introduction to the community that expresses its unique natural and cultural character.
- Highlight visitor centers, experience hub kiosks, wayside exhibits, audiovisual tours, and other interpretive media.
- Two or more pages (as many as needed) for maps and descriptions of each community's natural and cultural attractions.

- Concise, lively descriptions of each attraction, with websites and/or phone numbers where visitors can find more information.
- Strong, focal point photos of key attractions and informal snapshot-type photos of other attractions.

Scenic Byway Travel Guide Concept Design (front cover)



Glacial Trail Scenic Byway Travel Guide Concept Design (Peterson historic attractions)

Historical Treasures

Peterson Historic Attractions



Peterson



Discover the history of Clay County's first town

The Kirchner brothers of New York arrived at the Little Sioux River in 1856 to start new lives in the northwestern Iowa frontier. With their siblings and parents, they became the nucleus of Clay County's first town. Only a few years later, Peterson entered tumultuous times as settlers defended themselves from Dakota Indian attacks. Fort Peterson was built in response but was never attacked. The fort's blockhouse is a relic of that era.

- 1 **Jacob Kirchner Memorial Park:** Explore late-1800s life on northwest Iowa's frontier by touring two historic homes, a one-room school, and a machinery museum. Info: Peterson Heritage, Inc., 712-295-6443.
- 2 **Fort Peterson Blockhouse:** Fort Peterson was one of 11 forts and garrisons built in 1862-63 to defend Iowa from the Sioux Uprising. The blockhouse is the last remnant of those structures. Info: Peterson Heritage, Inc., 712-295-6443.
- 3 **Jim's History Barn:** History buff Jim Hass has a multitude of interests, including Native American artifacts, war memorabilia, and local curiosities, all displayed inside a 1928 barn. Info: 712-295-6552.
- 4 **French Memorial Museum:** Lifelong collector Doris French showcases dolls from throughout the decades and related accessories. Info: 712-295-7472.
- 5 **Philip Kirchner Cabin:** The 1867 cabin built by Christian Kirchner's son Philip still stands north of town, next to the 1882 frame home that later replaced it, as well as a barn with a unique widow's walk.

Christian Kirchner Home: Tour the first frame house in Clay County, built in 1867 by one of the area's first settlers.

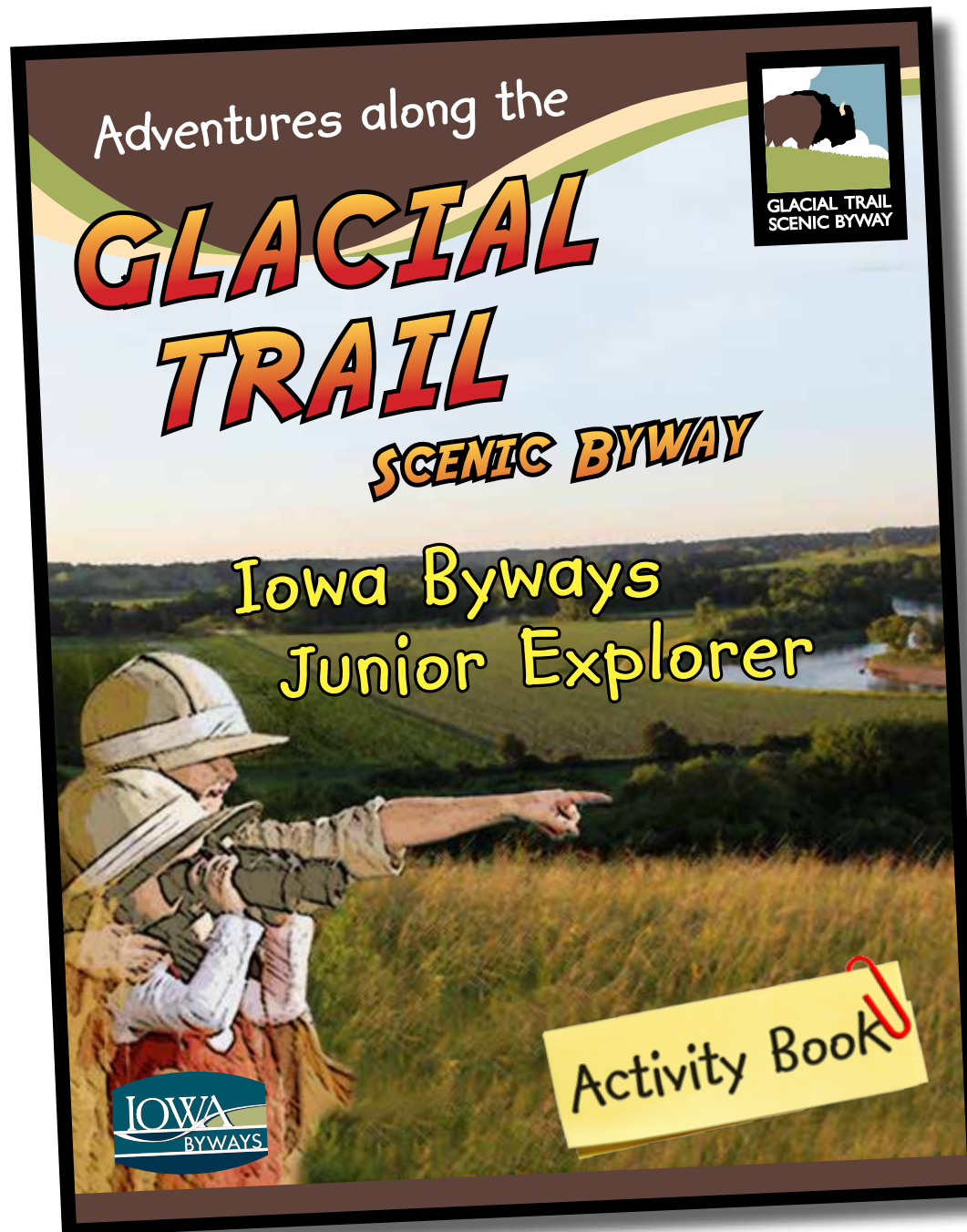
J.A. Kirchner Home: Christian Kirchner's son built this Italianate-style home in 1875.

Rock Forest School: Built in 1868, Rock Forest was one of the first frame schoolhouses in the county.

Kirchner Farm Machinery Museum: This museum exhibits antique agricultural equipment.



Junior Explorer Activity Guide Concept (front cover)



FAMILY ACTIVITIES

Families and multi-generational groups are a significant potential audience for the Glacial Trail Scenic Byway. Activities that encourage parents and children to engage in meaningful experiences together will create lifetime memories.

Iowa Byways Junior Explorer Program

Similar to the Junior Ranger programs found in many parks, an Iowa Byways Junior Explorer program would be an activity-based experience with the purpose of encouraging families to explore the state's scenic byways.

Each byway would develop a kid-friendly activity guide that reveals the specific natural and cultural resources along its route. The activities would be completed while traveling the byway. The guides would be made available at key locations along the byway, such as Prairie Heritage Center and Sanford Museum and Planetarium.

When children—with the help of parents or guardians—complete a certain number of activities, they would turn in their book at those locations, where a byway representative would look over the

activities and talk to the children about what they learned.

The children would then take an oath, promising to continue exploring the state's scenic byways, respect and protect the resources, and share their experience with others. The children would receive a patch (or other item) declaring them an official Iowa Byways Junior Explorer.

The guides would be filled with fun games, puzzles, and coloring pages that entice families to discover the Glacial Trail region. Some ideas include:

- A byway bingo game that encourages families to look for iconic features along the byway, like bison, canoeists, prairie flowers, grassland birds, wind turbines, one-room schools, and creeks.
- A nature scavenger hunt that encourages the family to explore a park or prairie.
- Stories and artwork created by children who live along the byway that describe their daily experiences (for example, farming).
- Coloring pages depicting scenes from the Glacial Trail byway.
- Crossword puzzles with Glacial Trail Byway terms they may learn, like

kames, Hanging Valley, meadowlark, and Inkpaduta.

- Dot-to-dot puzzles of resources they may see.
- A maze that follows the twisting curves of the Little Sioux River.

Family Discovery Packs

In association with the Iowa Byways Junior Explorer program, "Discovery Packs" filled with equipment and resources for young explorers could be made available to encourage more in-depth discovery along the byway. The packs could be borrowed from and returned to Prairie Heritage Center.

Items in the packs might include: binoculars, hand lens, bug magnifying box, bug net, field guides, a kids' audio tour CD, stargazing chart, field journal, and other essential exploration tools.



Iowa Byways Junior Explorers could be awarded a patch for successfully completing the activities.

A Discovery Pack, filled with hands-on tools and resources, encourages families to explore the byway.





An audio tour targeted specifically to children can help them connect with the byway's stories.

Children's Byway Audio Tour

Children's needs often determine the length of time and the kind of activities that a family will pursue. An audio tour that appeals to the interests of kids can be an effective method for involving the entire family. When child narrators speak to kids in a lively voice, it creates a personal interest.

A young boy, for example, can describe what it was like to immigrate from the eastern United States and settle in northwestern Iowa in the 1860s. He can recount his journey across the country in a covered wagon, his new life in a pioneer log cabin, attending a rural school, and helping his father turn the prairie sod over for farmland.

A "child" from the Mill Creek Culture can tell a story about her tribe's fortified village on Waterman Creek, what it is like to wait for her father to return from a bison hunt, and how she helps her family raise maize and squash in raised gardens.

A girl can describe what it is like to attend Rock Forest School with her brother. She can tell what the walk is like from their farmhouse down the dirt road, and what they bring to eat for lunch in their lunch pails. She can describe using the hand pump to get drinking water and tell them where the outhouses are behind the school.

Music and sound effects can make the children's audio tour even more exciting. The sound of a horse galloping, a rooster crowing, or a school bell ringing adds realism to the story. Songs written and sung by local people can be a great way to tell stories that involve children.



Rock Forest School, built in 1868, was the first frame schoolhouse in Clay County.

Family Passport Book

A Family Passport booklet would encourage exploration of family-friendly attractions along the Glacial Trail byway. This could include places such as the Prairie Heritage Center, Sanford Museum and Planetarium, Mill Creek Park, Dog Creek Park, Jacob Kirchner Memorial Park, Jim's History Barn, and Linn Grove Dam Park.

The incentive to fill up the passport with stamps creates a goal for families. Adults and children alike are engaged in the scavenger hunt to find the next stamping location. The booklet has take-home value, as each stamp represents a memory from the trip, an important connection to the byway experience.

The passport booklet is an interpretive opportunity. It should be written in concise, personal, kid-friendly language that reveals the stories of the byway resources. A unique stamp design developed for each attraction would reward travelers for their effort. Stamps can be available at staffed attractions and at self-service stations.



Prairie Heritage Center

Travel back to the pioneer days by clambering inside the settler's wagon. Watch live bison graze on the prairie. After you explore the indoor exhibits, take a hike on trails that meander through tallgrass prairie and oak savannas.

Address: 4931 Yellow Ave.
Peterson, IA 51047
Hours: 9 a.m. to 4 p.m. Wednesday-Friday
1 to 4 p.m. Saturday and Sunday
Cost: Free
Phone: 712-295-7200
Web: prairieheritagecenter.org



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Family Passport Book: Concept Design (Prairie Heritage Center page)

MEDIA COST ESTIMATES

These cost estimates were developed in 2018 based on quotes from multiple companies. They include research,

design, and fabrication/printing. The estimates are listed as broad ranges and should be used only for the purposes of

planning and fundraising. Actual prices will vary considerably based on the specifics of each project.

Media Type	Info	Rationale	Cost Estimate
Experience hubs	pp. 86-94	Highly visible way to orient travelers to regional attractions. Cost-effective where attractions are not routinely staffed.	\$10,000–\$15,000 each (Metalwork, timbers, 4 HPL panels)
Two-panel kiosks	pp. 95-99	Introduces travelers to the byway and other natural attractions.	\$5,000–\$6,000 each (Metalwork, timbers, 2 HPL panels)
Wayside exhibits	pp. 100-105	Best way to communicate must-tell stories at significant sites along the byway where no other tools are available.	\$3,000–\$3,500 each (metal base with cut-out, 1 HPL panel)
Welcome/visitor center touch-screen computer kiosk exhibits	pp. 106-107	Valuable in alerting travelers to the byway's existence and for trip-planning; small size appropriate for existing centers.	\$15,000–\$25,000 each
Byway artwork	pp. 108-111	Highly visible way to focus attention on a significant story or event on a roadside scale.	Highly variable based on type and artist. Steel silhouette statue: \$1,500 average
Website design and social media development	pp. 112-116	Essential planning tool that reaches a large audience; is easily updated.	\$10,000–\$25,000 for development plus monthly hosting/maintenance.
Byway mobile tour website or native tour app	pp. 117-122	Ideal tools for incorporating sound and visuals to make stories come alive; convenient, easy to use, and encourage interaction.	\$8,000–\$50,000 for development plus monthly hosting/maintenance (\$200-\$500/month)
General byway brochure	pp. 123-126	Small publication that can be widely distributed to promote awareness of the byway.	\$1,500–\$2,000 per 10,000 copies (11"x17" size, full-color)
Travel guide booklet	pp. 127-129	A physical method for visitors to navigate the byway and discover its stories; not dependent on cellular service.	\$12,000–\$15,000 per 10,000 booklets (32 pages, 8.5"x11" size, full-color)
Iowa Byways Junior Explorer booklets	pp. 130-131	Keeps families engaged in the byway's interpretive themes and encourages discovery.	\$8,000–\$12,000 per 10,000 booklets (20 pages, 8.5"x11" size, full-color)
Family passport books	p. 133	Provides motivation to visit specific sites along the byway and has take-home value.	\$5,000–\$8,000 per 10,000 booklets (20 pages, 6"x6" size, full-color) Stamps (1.25"-diameter): \$25-\$40/each

APPENDIX



Glacial scenery along County M12 on the byway.

APPENDIX: VISIONING MEETING RESULTS

On June 14, 2016, Schmeackle Reserve Interpreters conducted a visioning meeting with Glacial Trail Scenic Byway stakeholders at the Prairie Heritage Center near Peterson. The purpose of the meeting was to gather information about the places, activities, and stories that should be interpreted along the byway.

During this meeting, participants were asked to respond to these questions:

1. **Attractions:** What are the important attractions along this byway that visitors should experience?
2. **Stories and Messages:** What compelling stories and messages make this byway unique?
3. **Audience:** What unique audiences visit this byway? What audiences *should* be targeted to visit the byway?
4. **Vision:** Imagine 5 or 10 years from now. What is your vision of success for the Glacial Trail Scenic Byway?
5. **Research Recommendations:** Who are the key people we should interview and what are the important documents we should acquire to learn about your byway?

The responses were recorded, organized, and sent to Iowa Lakes and Golden Hills RC&D for review and dissemination. The final results are included below.

Attractions

What are the important attractions along this byway that visitors should experience?

- Peterson: historic houses, block house, farm machinery museum
- Jim's History Barn, Peterson
- Linn Grove Dam
- Wind turbine farms
- Peterson: French Doll Museum (cut glass, antiques, salesman samples)
- Waterman Prairie Important Bird Area
- Many prairies in the area (flora, fauna, geology)
- Linn Grove: Indoor bike park (only open Friday evenings)
- Prairie Heritage Center
- Cat-steps and the experience of standing on one
- Old cemeteries
- Peterson: North side, old barn restored by Iowa Barn Association
- Barnes Rodeo
- Fall wine fest, Vinestock, Peterson in park
- Hartley restored chapel in cemetery
- Bruce Morrison's art studio, Sutherland
- Rocking M Art Studio outside of Peterson (also organic beef)
- InnSpiration Winery outside of Linn Grove
- Bogenrief Art Studio, Sutherland (stained glass)
- Sanford Museum in Cherokee
- Arts on Grand in Spencer (gallery)
- Mill Creek archaeological sites along Little Sioux River and Waterman Creek
- Dog Creek Park
- O'Brien County Park
- Buena Vista County Park (new camping and cabins)
- Wanata State Park, Peterson, WPA-built shelter
- Artisan Road Trip (in fall)

- McGee Gallery in Peterson
- Burned Bridge
- Dutch Fred grave
- Covey Church and cemetery, just north of Sutherland about 6 miles
- Iowa State Research Farm
- Steele Prairie State Preserve
- Primghar: Heritage Park (historic buildings)
- Sutherland Public Library (ghosts!)
- Libraries in the area, special collections
- Several golf courses, Sioux Rapids
- Country schools, Hartley
- Eagle sighting area
- Fort Peterson
- Wittrock Indian Village
- Hanover, tours of old community, historic gas station, grocery store
- Spencer: Dewey the Cat (spent life in the library)
- Pear Tree House in Sutherland
- Patch-Eeten House in Hartley
- Mental health institute in Cherokee (trails and museum)
- Flora and fauna (bison, deer, otters)
- Hartley: Solsma's Pumpkin Patch
- Calumet Hydroponic tomatoes
- Figure-8 races in Primghar
- Fishing and hunting (people come from all over)
- Clay County Fair in Spencer (in September)
- Getting's Garden in Sanborn
- Shrimp Shed in Everly (freshwater shrimp)
- Fall Fest at Prairie Heritage Center
- Bison Feed at Prairie Heritage Center
- Winery outside of Sutherland
- Country Barn Winery
- Silo City north of Sioux Rapids, built by Arnold of Arnold Motors
- Buena Vista University Science Center, large collection of taxidermied animals
- Inkpaduta Water Trail
- Linn Grove Dam Bait Shop
- Vander Haag Museum, Sanborn
- Blue Monkey Art Gallery
- Sutherland winery
- Heritage Park, Primghar
- Wind turbines
- Mill Creek Park, Paullina
- Barn quilt tour

Stories and Messages

What compelling stories and messages make this byway unique?

- Inkpaduta story: came through this area, harassed settlers in Peterson, on way to Spirit Lake massacre
- Moving location of county seat from O'Brien to Primghar
- Dams and water control structures installed in 1940s and '50s
- Local farming stories of families
- Abbie Gardner, Spirit Lake Massacre
- Amusement Park in Arnolds Park, oldest wooden roller coaster still in use
- Mill Creek culture
- Bonnie and Clyde story
- Largest concentration of remnant prairies in the state
- Glacial impacts: kames, kettles, fens, hanging valleys, cat-steps
- Buildings built by the WPA or CCC, Wanata park shelter, library in Peterson, Paullina Mill Creek Park dam
- Kirchner and Waterman families, several stories associated with the early settlers, Peterson museum, first white child born in the county

- Country schools
- Major Charles Inman, first builders of house on Waterman Creek, first person murdered in O'Brien County
- New species of animals discovered in the hills... tall tales? Moose, bobcat
- Stories of people buried in various cemeteries, part of a cemetery tour
- Soil formation, unique systems, loess soils vs. glacial soils
- Dr. Ada Hayden identified and protected prairies
- Changes in farming over the years
- Threshing shows in the area
- Stories of the bison and extinct species of animals
- Dutch Fred story
- Pre-settlement forts and outposts (Peterson and Cherokee)
- Conservation efforts to revitalize the land, through partnerships
- Clay County seat originally in Peterson; Spencer group came in the middle of night and stole the records
- Primgahr naming, other community names
- Old vs. new wind turbines
- Railroad history and effects on local towns

- Valley was difficult to get out of in the winter time, had to back Model Ts up hill, story of people in the valley, dance on the bridge
- Medical history: hospitals started out in homes
- Cobblestone Dance Hall in Storm Lake
- Border Brigade, pioneer forts
- Geology

Audience

What unique audiences visit this byway?

- Bank bus tours (seniors from out of state, Minnesota, going to multiple attractions)
- School bus tours (Prairie Heritage Center, old fort, one-room schools)
- Birders (including international, corridor for hawk migration, warblers in spring, summer prairie species, bald eagles)
- Prairie enthusiasts
- Glacier/geology enthusiasts
- Archaeology enthusiasts (Mill Creek)
- Genealogy enthusiasts (historical societies)
- Grandparents and grandchildren

- Campers (county parks, not just local)
- Art groups (especially nature-related artists)
- Home school groups (interested in opportunities for students)
- Hunter and fishers (out-of-state)
- Nature enthusiasts
- Mushroom hunters
- People who are lost
- Wine enthusiasts (tour of wineries in northwestern Iowa)
- Geocachers (Prairie Heritage and Dog Creek)
- Writers
- Byway enthusiasts
- River enthusiasts (canoers, kayakers, snowmobiling)
- Musicians (music fests in area, Sheldon, Storm Lake, Cherokee)
- Youth, families
- Writers

What audiences *should* be targeted to visit the byway?

- Youth and families
- Students
- Historians
- Artists

- Hunters/fishers
- Motorcyclists
- Bicyclists
- Locals (many haven't visited attractions)
- Employers (part of recruitment efforts for new employees)
- Vacationers (family and youth)

Vision

Imagine 5 or 10 years from now. What is your vision of success for the Glacial Trail Scenic Byway?

- More attractions specific to byway, like pull-offs for scenic views or interpretation
- Visitor center or kiosk in Peterson to orient people to byway
- Wayfinding signs to attractions along the byway
- Marketing byway to schools for field experiences
- Northwest Iowa Review partnering for marketing byway
- Increase in economic development
- More recreational trails along byway
- More visitor amenities (lodging, gas, restaurants, restrooms); more visible signs

- More or better canoe or kayak landing sites, with parking lots
- Gun and archery range
- Dog park
- Canoe and kayak rentals
- Collaboration of antique shops, artisans, local food as an organized unit
- Farmers markets
- Traveling exhibits: Bring people in multiple times
- Develop events to bring people in multiple times
- ATV trails
- More interpretive signage
- Audiovisual apps, using oral history
- Radio station interpretation
- Success when other organizations and communities want to expand the byway

Research Recommendations

Who are the key people we should interview and what are the important resources we should acquire to learn about the byway?

- Paul Thomsen, Peterson Library: 712-390-0430
- Michael Hyde: 712-260-3432
- *If These Walls Could Talk* by O'Brien County Tourism, a book of historical buildings
- Iowa Northern Border Brigade, story of the forts in the area
- Peterson History books, volume I and II
- *Archaeological Guide to Iowa*
- *Iowa's Archaeological Past* by Lynn Alex
- Sanford Museum
- Fay Schall, historian at O'Brien County History in Primghar, 712-957-2017 or paradox@tcaexpress.net