



ACTIVE BYWAYS FOR KANSAS

Executive Summary



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INTRODUCTION AND OVERVIEW

The Kansas Byways Program celebrates the State's beauty, history and culture through recognition and promotion of its unique roadways. While we do not have the spectacular landscapes of the mountains and coasts, we have our own oceans, and offer something deep, beautiful and real to the thoughtful traveler. Byways offer alternatives to main travel routes that give people the opportunity to explore our State at this level, and rely on two imperatives: the experiential and the economic. The experiential imperative enriches and inspires visitors, encourage them to interact with our special environments. The economic imperative opens opportunities for rural economic development. These imperatives embrace a thoughtful approach to travel that is especially well-suited to bicycle and pedestrian transportation.

Active Byways for Kansas is a study of possible markets for active tourism in Kansas and relates these markets to the environments, conditions, and resources of Kansas Byways. It considers the feasibility of adapting the byway system to active transportation and is designed for use by:

- Byway committees and support organizations. Local governments.
- County governments and regional agencies.
- Local governments.
- State agencies.
- Nonprofit and philanthropic organizations.
- Potential users.

This study included a robust engagement process that included a non-random opinion survey that received 1,100 responses; on-site workshops and meetings with byway committees and interested parties; and bicycle and auto tours of every mile of each byway. While it presents possible actions and concepts that can guide the development of active byways, *under no circumstances should any of these be taken as a guarantee of safety or relieve individuals of the responsibility of assessing conditions and deciding whether to use all or part of current or potential byway routes.*

INTRODUCTION AND OVERVIEW

Discussions to create a Kansas Byways program began in the 1960s, but real progress started with legislative designation of the Frontier Military Scenic Byway in 1990. In 1994, the Kansas Department of Transportation (KDOT) launched a statewide program and called on local groups to organize and nominate roads for designation. Today, Kansas has twelve byways, two of which (Flint Hills and Wetlands and Wildlife) are among 250 National Scenic Byways. Kansas byways are organized at the grassroots level, on the initiative of groups of citizens, governments, and other local and regional interest groups. KDOT and the Kansas Department of Wildlife, Parks, and Tourism (KDWP) oversee the Kansas Byways program. Individual byway committees manage individual byways at the local level.

Bicycling and pedestrian tourism provides an opportunity to take the next step in improving awareness and success of the Byways program. This effort is supported by substantial local and regional trail efforts. Local projects in byways communities include Lindsborg's Valkommen Trail, Great Bend's Hike and Bike Trail, Council Grove's

Neosho Riverwalk. Longer distance regional trail initiatives have the most potential to extend the reach of the system and encourage destination visitors. These major initiatives include the Flint Hills Nature Trail, the Prairie Spirit and Southwind Trails, the Landon Nature Trail, the Meadowlark and Santa Fe-Sunflower Trails, and trails in the Kansas City metropolitan area.

KANSAS ACTIVE BYWAYS SURVEY

This study process included a non-random online survey using Survey Monkey to measure the public's impression of the byways and preferences for how to experience them on foot and by bike. More than 1,100 individuals participated. The results do suggest a significant market for active byways. Survey respondents demonstrated interest in both visiting byways and exploring them through active transportation (walking and biking). Major survey results included the following:

Possible Impact on Use

- About 45% each suggested that pedestrian and bicycle amenities would induce them to visit a byway would cause them to lengthen their visit.
- 70% of respondents said that they would be "extremely likely" or "very likely" to use the Byways for walking, hiking or bicycling if pedestrian and cyclist improvements were made.
- About 70% would travel over 50 miles to visit a Kansas Byway corridor; over 50% would travel over 100 miles.

Bicycle Preferences

- 60.2% ride a bicycle once a week or more.

- Over 70 percent walk or run for exercise, recreation, or transportation at least once a week.
- Most popular types of bicycling included road bicycling, multi-use trail biking, and short to moderate distance day rides.
- Bicycle camping, touring, and racing were among the least popular responses.
- About 90% would use off-road paved or surfaced trails, while 31% would use medium trafficked paved highways.

Pedestrian Preferences

- 78% of walk for exercise and 35% jog for exercise. 35% walk for day hiking and wilderness hiking and 30% walk for basic transportation.

Recreational Interests

Most popular recreational interests included sightseeing/nature viewing, visiting museums and historic sites, visiting small towns, camping, recreational driving, rowing/kayaking, shopping, birding/nature study, fishing, and hunting.

Most popular historic or cultural attractions included natural history, Kansas history, historic homes and buildings, Native American history and culture, western trails, musical performances, museums, and Civil War era history.

Current Use Patterns

- 75% had visited a byway corridor for purposes other than routine transportation.
- Flint Hills received highest percentage of visits (68%), followed by the cluster of central Kansas byways.

- 38% reported bicycling along or near byways during the last five years. The Flint Hills byway was most popular among cyclists, followed by Native Stone and Prairie Trail.

PRACTICE AND POTENTIAL

A number of indicators and economic studies indicate that active tourism, and particular bicycle tourism, is growing in popularity. Byway systems are a logical starting point for a network of facilities. Nationwide practice has focused on two approaches: linking information about bicycle transportation and tourism to byway websites and, specifically in Oregon, creating a system of scenic bikeways, patterned after but separate from scenic byways. Kansas' tourism and byways website (www.travelks.com/ksbyways) includes links to the state bike map; information on trails, road routes, events and group rides; and the cycling environment of various byways. New York, Colorado, and Massachusetts are other good examples of information linkage. To date, though, only Oregon has implemented a complete Scenic Bikeways program. The experience of the Oregon program can help guide a Kansas initiative.

Oregon Scenic Bikeways are modeled after but separate from the state's Scenic Byways program. It is administered by a partnership of the Oregon's state parks, tourism, and transportation departments and its statewide bicycle coalition. Important characteristics of the Oregon program include:

1. Local or regional initiated byways applications.
2. Clear, consistent, and thorough procedures for reviewing and designating bikeway applications.
3. Preparation and evaluation of a detailed bikeway



SIGHTS ON THE BYWAYS. Top: In the Missouri River valley on the Glacial Hills Scenic Byway. Above: The Garden of Eden in Lucas on the Post Rock Scenic Byway, understandably one of the Eight Wonders of Kansas.

management plan before designation of a route.

4. No guarantee or suggestion that the route as “safe” for any category of bicyclists.

5. Signage consistent with MUTCD standards.

Because Oregon’s bikeway application process requires local or regional proponent groups, scenic bikeway corridors tend to cluster in the northwest (Portland/Eugene sector) quadrant of the state, where bicycle communities are extremely strong. In Kansas, where local bicycle advocacies are present but smaller and other groups must be involved, byway committees are logical entities to act as regional proponents.

ECONOMIC IMPACT

Economic impact studies in Montana, Michigan, and Iowa indicate significant (but difficult to isolate) beneficial influences. The most complete studies to date are Dean Runyan Associate’s work for Oregon. A 2012 report placed the annual economic impact of bicycle tourism in the state at \$400 million. A separate 2015 study estimated that the bikeway system generated \$12.4 million in direct spending in 2014.

This study estimated potential economic impact by applying spending assumptions similar to those used in the Oregon studies, adjusting for population size, incorporating results from the Active Byways survey, and using three different market attraction models. These calculations suggest that a complete active byway system in Kansas could generate between \$6.7 and \$10 million in direct annual consumer spending on retail goods and services.

LAUNCHING A PROGRAM

BICYCLIST AUDIENCES: TYPES AND CAPABILITIES

Byways typically fall into three categories: long distance routes, diversions from principal highways, and thematic clusters of features. Time and interest are the most important factors in determining whether a motorist will consider using the byway. But for active users like bicyclists and pedestrians, individual factors like capabilities, physical endurance and personal comfort also contribute to their decision. Therefore, programming for an effective Active Byways program begins with identifying our target user groups and understanding their specific needs and preferences.

Target user groups for active byways include:

- *Bicycle tourists*, generally oriented to medium to long distance, on-road travel.
- *Gravel grinders*, who ride for relatively long distances on unpaved roads in scenic areas,
- *Mountain biking*, primarily an off-road activity on tracks or single-track trails, with bicycles that are adapted to steep slopes and irregular terrain. Wilson State Park’s Switchgrass Trail is rated as one of the nation’s leading mountain bike facilities.
- *Organized tours and events*. Kansas has a full schedule of organized rides and events, and a bicycle-friendly byways network would further expand opportunities. Organized tours need low-volume roads to minimize disturbance to normal traffic.



FORTS, ORIGINAL AND RECONSTRUCTED. From top: Fort Harker in Kanopolis off the Prairie Trail byway; Medicine Lodge Stockade on the Gypsum Hills byway.

- *State park visitors*. Bicycle-friendly byways can add to the recreational experience of people coming to byway regions for other recreational, cultural, educational, or business purposes. This market target is likely to include beginner riders or families with children.

PEDESTRIAN MARKETS: TYPES AND CAPABILITIES

Most pedestrians seek short distance hikes (generally less than ten miles), separation from major roads, a level of quiet and engagement with the natural environment, and opportunities to com-



SUPPORTING INFRASTRUCTURE. From top: Completed section of FHNT; Marais de Cynges River Bridge on the FHNT at Ottawa, one of four bridges designated as signature bridges for thematic enhancements.

bine exercise with enjoying the scenery and character of the byway regions. Many facilities, including multi-use trails, gravel or other unpaved roads with very light traffic, and single-track trails, can serve both pedestrians and bicyclists. Specific opportunities for these facilities include:

- Hiking and walking paths and trail loops within park or public use facilities.
- Point-to-point paths and hiking trails that connect communities to adjacent resources like campgrounds, fishing lakes, or special natural or scenic features.
- Roadside paths that feature especially important scenic resources.
- Accessible paths that provide opportunities to people with disabilities or seek a shorter, easier pedestrian experience.
- City sidewalks and paths.

PERFORMANCE CRITERIA AND COMMON ISSUES

Adapting performance standards developed in the Netherlands can help guide the evaluation of potential active byway routes. Our adaptation distills this work into six general categories of performance objectives that apply to the success of active transportation systems: directness, integrity, safety, comfort, experience, and feasibility.

- *Directness* addresses the need in transportation systems to users along their route with a minimum amount of misdirection.
- *Integrity* addresses the need that a system should provide continuity and not leave users in dead-end situations.
- *Safety* addresses the need for people to choose traffic environments that avoid traffic conflicts and intersections and wayfinding decisions that confuse them.
- *Comfort* addresses the physical ability of the cyclist or pedestrian to deal with hills, endurance challenges, and other potential sources of stress.
- *Experience* addresses the quality of the environment, built or natural, that the system (or individual route) presents to the user.
- *Feasibility/value returned* addresses the relationship of cost and benefit, measured by potential number of market groups served and expanded per unit of effort.

Some facility issues are common to all of the byways in the Kansas system and should be considered in the planning of specific active byways. These include:

- Identification and Wayfinding.
- Motorist Advisories.
- Hills and Safety Conflicts.



- Other Road and Traffic Conditions including traffic volume, high speeds, roadway geometrics, prohibitions of non-motorized traffic.
- Endpoints at service centers or communities.
- Remoteness and lack of services.
- Disconnected byways.
- An active byways support industry.

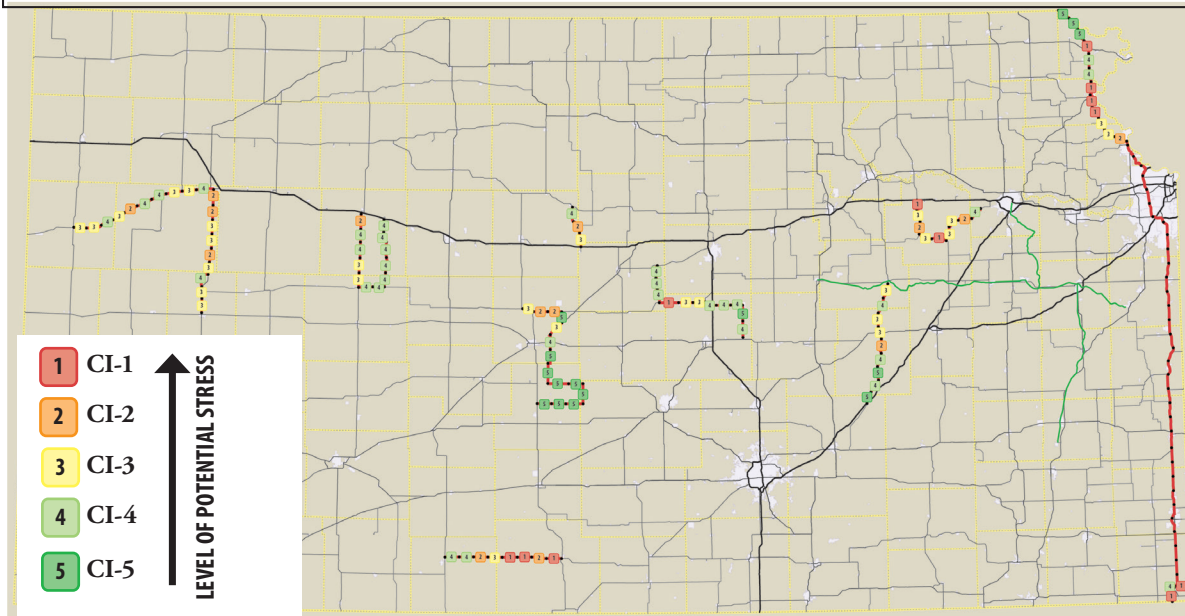
MEASURING WELLBEING

A tool that uses objective measurements to measure the “comfort” that various users have with byway segments can assist local proponents in designing routes and a potential selection committee. The study includes an experimental “Byways Comfort Index” that assigns scores on the basis of six objective variables, including:

- *Percent of a segment with grades below 3%.*
- *Percent of a segment with grades of 5% and more.*
- *Overall combined average daily traffic (ADT).*
- *Average daily truck traffic.*
- *Shoulders.*
- *Speed limits.*

Scores were calculated, normalized on a 1 (most uncomfortable) to 5 (most comfortable) scale, and compared with subjective ratings for each segment

COMFORT INDEX SCORES BY BYWAY SEGMENT



assigned independently based on the experience of riding each segment.

The Flint Hills and Wetlands and Wildlife National Scenic Byways receive the highest comfort score. The Smoky Valley, Prairie Trail, Western Vistas, and Post Rock Byways are in the intermediate category. The Glacial Hills, Native Stone, Route 66, and Gypsum Hills byways appear to be the most challenging. However, there are segments of each byway that are appropriate for different types of riders.

GUIDING IDEAS

The Guiding Ideas presented here are the unifying principles that can help turn byways for cars only into active byways.

1. View byways as “fields” rather than “corridors.”
2. Provide a framework for local initiatives.
3. Extend a meaningful active byway experience to all.
4. Invest resources efficiently by being selective and strategic.
5. Place a high priority on user experience.
6. Keep users oriented and aware of assets.
7. Integrate byways, regional trails, and local initiatives into a statewide network.
8. Serve communities.
9. Create, support, and expand private business opportunities.

ACTIVE BYWAY INITIATIVES

Today’s Kansas Byways system is the starting point, but not necessarily the endpoint of an Active Byways program. Guided by the requirements of

the state program, current byways typically include four common elements:

- **INFRASTRUCTURE**, the roads that the byways follow.
- **WAYFINDING AND INFORMATION ON THE ROUTE**. These signs, graphics, and kiosks provide guidance to byway users.
- **PRINT AND ON-LINE MARKETING AND INFORMATION COLLATERAL**.
- **ORGANIZATIONAL FRAMEWORK**. As noted in Chapter One, byway administration is decentralized, with individual associations managing promotions and sometimes supporting facilities on a local basis.

The framework of an active byways program should also include three new areas, given the nature of the opportunity to build on byways as the base:

- **ALTERNATIVE ROUTES**. When byway routes have conditions that may make them uncomfortable for non-motorized travelers or create possible conflicts with motorists, alternate routes where they exist may be appropriate, and should be encouraged.
- **ECONOMIC AND BUSINESS DEVELOPMENT**. Business development initiatives can support the new opportunities opened by expanding the byways market to new groups.
- **CROSS-STATE INTEGRATION**, weaving the eleven byways and regional and local trails into an unparalleled statewide system.

INITIATIVE ONE: ROUTE ALTERNATIVES

This initiative looks at three types of revisions to existing Kansas Byways routes:

- Alternatives to the byway main line to provide a more enjoyable and complete experience for active users.
- Segments off the main corridor that serve specific market groups or destinations. The increasing popularity of gravel cycling, especially among younger and more adventuresome cyclists, leads to extending byways into some non-traditional areas – still destination oriented but decidedly off the traditional paths.
- Modifications of endpoints to serve active users. But active byways depend on services where people stay, buy services, rest, eat, and make memories. Therefore, concepts for scenic bikeways should generally place endpoints in communities and serve as many towns as possible.

INITIATIVE TWO: INFRASTRUCTURE

Infrastructure projects should be affordable and provide short-term results. In developing and evaluating project proposals, specific types of improvements should receive special attention. These include:

- Proposals that may enhance safety or reduce conflicts between different modes of travel.
- Relatively low cost methods to reinforce active byways, increase motorist awareness of and tolerance for mixed traffic, and encourage safe and courteous riding practices.

- Maintenance of roadway surface quality.
- Support facilities in open areas remote from community services.
- Short and strategic off-road or shared-use pathway segments that open access, fill gaps, or create unusual opportunities open to all types of users, including pedestrians.
- Wayfinding to orient users to the route, their location, and attractions and features in the general area.

INITIATIVE THREE: INFORMATION COLLATERAL

Despite excellent sources of information, some additional material, adapted to bicycle and pedestrian needs, could be extremely valuable in complementing other initiative on the route. This could include:

- *A Bike/Hike Kansas website* that is a center for active tourism information in the state.
- *A Scenic Bikeways/Trekways Guide*, available in print or for download, that includes general information, a spread with map, elevation information, route description, and location of features and services for each byway.
- *Videos of each byway* that promote the biking/hiking experience, linked to the Bike/Hike Kansas website.

INITIATIVE FOUR: ORGANIZATIONAL SUPPORT

The active byways concept provides opportunities for new regional organizations. But in byway corridors, a requirement that each committee include an active tourism element or working paper into

their CMP's within a specific period (preferably one year) could form a link to active features. This element should:

- Establish goals and target markets from an active tourism perspective.
- Identify featured projects for both on-road route and off-road path development.
- Define ways to improve service to present and future active tourists (such as bike rentals, bike parking, support facilities, camping, and others).
- Explore working relationships with other byway associations, bikeway or trekway proponents, or regional groups working on associated projects (such as the Kanza Rails to Trails Conservancy).
- Provide a potential marketing and promotional plan.
- Promote bicycle-friendly business practices.

The state's managing departments can provide technical assistance to these groups by using staff expertise, enlisting volunteers, working with national organizations, and, in some situations, using consultants with special experience in active tourism for limited consultations with local groups.

INITIATIVE FIVE: BUSINESS DEVELOPMENT

There are two general approaches for positioning businesses to take advantage of these possibilities:

- Helping existing businesses build the market by targeted marketing and improved service and accommodation to active visitors – bicyclists, hikers, and recreational groups in general.

- Creating new businesses to fill niches that did not exist before.

INITIATIVE SIX: A CROSS-STATE SYSTEM

One of the most exciting possibilities from a national and even international perspective is to integrate them into a system of connected routes and regional rail-trails into an incredible statewide network that provides endless possibilities. We can envision a Kansas version of Quebec's famous *La Route Verte* (the Green Route), a 4,000 kilometer interlinked network that attracts visitors from all over the world. Because Kansas' state motto is in Latin rather than French, we could even give our possible network a unique name: *Via ad Astra*, Way to the Stars.

INDIVIDUAL BYWAYS

The Active Byways study analyzes and considers possibilities for each of the eleven pre-2015 byways. Each individual chapter includes:

- A review and analysis of the byway route, including application of the "comfort index" to each five mile segment and an examination of characteristics such as grades, traffic volumes, and community features and services.
- An assessment of the strengths and challenges of each byway for active tourism.
- A consideration of secondary and alternative routes when available.
- An active byway concept for each corridor with ways, with approaches for implementing the

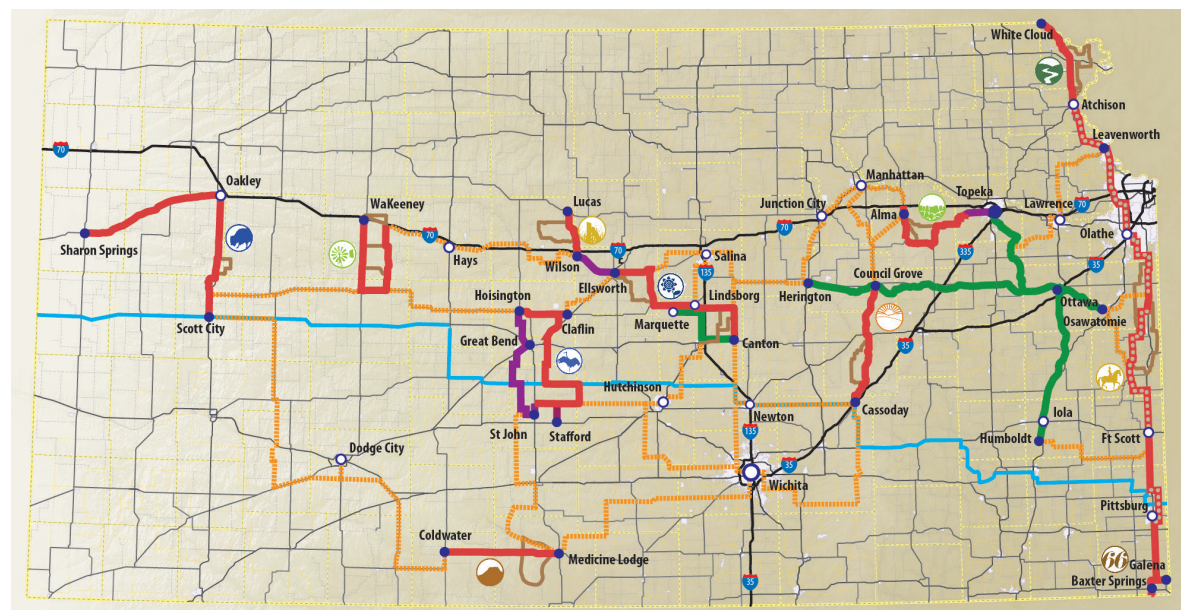
concept.

- Suggestions for potential active byway designations.

Each chapter includes maps to support analysis and possible directions.

THE STATE ROLES

Beginning the process of implementation requires identifying the various roles that the partners in this process must fill. The major roles envisioned for state departments include the following:



- Primary Byway Route
- Active Byway Modifications
- Active Byway Extensions
- Regional Trails
- Network Connectors
- Byway Gravel Grinders
- ACA Trans-America Trail

- *Establishing and designing the program.*
- *Overall coordination.*
- *Route evaluation and selection.*
- *Standards.* Uniform expectations and a consistent vocabulary will be important in establishing consistency in the program.
- *Information and marketing collateral.*
- *Technical assistance.*
- *TAP and other grant program evaluation.*

THE LOCAL ROLES

Like the regular Byways program, the Active Byways program will be a grassroots, locally initiated effort by design, following guidelines established by the state but executed locally. The roles of local proponents in the effort include:

- *Route initiation and design.*
- *Applications.*

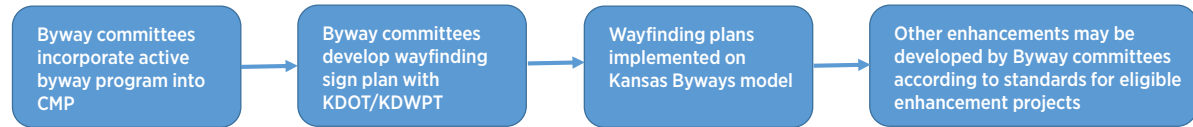
- *Plan preparation, design, and implementation.*
- *Management and marketing.*
- *Development funding.* Additional funding from the public, private, and nonprofit sectors is likely to be required as elements like scenic bikeways are designated and enhanced.
- *Business education.*

AN APPLICATION PROCESS

The application process anticipates two types of initiatives:

- *Existing byways*, upgrading the existing routes. This process is specifically related to byways and involves wayfinding along with possible enhancements.
- *Scenic bikeways and trekways*, special routes that may or may not be part of existing byways and could be initiated by any local proponent group in the state.

Existing Scenic Byways



Scenic Bikeways/Trekways

