



**FLINT
HILLS**
FRONTIERS

FLINT HILLS REGIONAL PLAN

June 1, 2015



ACKNOWLEDGEMENTS

As per the direction of the Flint Hills Regional Council and the Flint Hills Work Group, the following Flint Hills Frontiers regional plan is a compilation and summation of over three years of work by the many stakeholders who contributed to its creation. The Regional Council is committed to implementing the vision illustrated here within through a collaborative, engaging and meaningful community effort.

The Regional Council is hopeful that this regional plan will lead to a process of Strategic Doing that leverages the tools developed during the process so that each and every stakeholder and organization can collectively and/or individually work towards the betterment of the Flint Hills region as a whole.

A special thanks to Brad Mangas and Kevin Sink for their inspirational photographs of the Flint Hills incorporated into this document.





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I

THE PRAIRIE ECOSYSTEM - A PROLOGUE

Solutions Underfoot

Just as prairie grasses interlock their root systems, the people of the Flint Hills are tied inextricably to the land and to one another. For some this sea of grass and rich grazing land has been in their family for a hundred years and remains their livelihood. Others host prairie experiences for world travelers in search of adventure. Some toil and burn in order to preserve the most endangered ecosystem in North America. Many come home while gazing over the wide landscape during their daily commute. For most, the vista of the prairie frames their sunrises and sunsets and feeds their souls. All are connected.

The contradicting forces of wind and root on the prairie hold fast anything that tries to live upon the land. Every blade reaches for the sun in the hope that the wind will scatter their seed. There are many who have worked hard their entire lives to educate their children and send them out into the world to make a different, perhaps easier life. But they whisper a secret longing to the wind that their children will return again to the prairie, and those children feel the pull to this place.

If one looks beyond the resources this landscape provides and deeper into its natural splendor, it is possible to find a rich treasury of genius just underfoot that provide solutions to the challenges and contradictions of today. Since the glaciers and oceans receded this grassland ecosystem has learned to evolve and adapt to the changing forces of wind, water, and sun. The animals, and indigenous people of this place have much to teach about how to respond to local conditions and be good stewards of its resources. The plants that thrive here know how to meet all their needs with the water and sun available. The prairie knows how to create conditions that are conducive to life and vitality. Those who call this place home are part of that legacy and learn daily to emulate its tenacity, its resiliency.

By asking, “how does the prairie do....?” One might find the answer to, “How can the people of the Flint Hills do...?” By learning to observe what is happening in the natural systems of the prairie it is possible to find solutions for all Flint Hills’ communities.





PRAIRIE INSIGHTS

How does the prairie incorporate diverse forms, processes, or systems to respond to changing conditions?

The genus *Lobelia* hosts an abundant number of species, large and small, in a range of colors, many appearing dissimilar from each other. The differing forms of the *Lobelia* found in the Flint Hills attract a variety of pollinators including humming birds, bumblebees, moths, wasps, and butterflies improving the chances of spreading genetic material without relying on one single set of conditions to be present to ensure pollination. Incorporating a variety of diverse forms makes *Lobelia* more resilient and responsive to changing conditions.

How can Flint Hills communities incorporate diverse forms, processes, or systems to respond to changing economic conditions?

Creating conditions that will attract new businesses, big and small to employ a variety of skills and to serve a large variety of consumers and cultural interests, will diversify the Flint Hills economy. It is always desirable to attract large employers, and yet communities are more resilient when they do not rely on one or two large industries for the livelihoods of many. Businesses in many sectors allow some to thrive if conditions for one type of business suddenly change. This provides families with more diverse sources of income and stability as economic conditions fluctuate.

II

THE STORY OF THE FLINT HILLS

Our Fragile Resource

At one time, the tallgrass prairie was North America's largest continuous ecosystem, covering 140 million acres from the Canadian border south into Oklahoma. As soon as the pioneers began to lay claim to the soil in the middle of the 19th Century under manifest destiny, the natural balance of the prairie began to change. Today, only 4% of that once vast resource remains and Kansas has a larger portion of the ecosystem than all other prairie states combined. Kansans and tourists alike are waking up to what most Flint Hills' residents already know: the subtle beauty and natural complexity of the tallgrass prairie is one of the most pristine and important national treasures remaining in our rapidly urbanizing world.

Recent interest in the Flint Hills has pushed the region to the forefront of the public's consciousness. From proposed wind farms to a growing number of conservation easements on private property, as well as the Kansas City Symphony's annual performance in the landscape have all raised the profile of the tallgrass prairie landscape. With increased visibility comes opportunity, but also an urgency to act. The Flint Hills must seek to find a balance that honors the intrinsic value of the native landscape while leveraging its environmental, social, cultural, and economic benefits to its communities.

While the Flint Hills' shallow soil and rocky foundation has protected the native grass from the plow, a variety of development pressures and economic hardships persist. A regional strategy is needed to ensure that local residents, the tallgrass prairie, and tourists can coexist. There are hundreds of organizations and individual champions dedicating their time and support to the conservation and stewardship of the tallgrass prairie. Their collective work is the catalyst for this coordinated planning effort, and is the foundation for plan implementation.



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PRAIRIE INSIGHTS

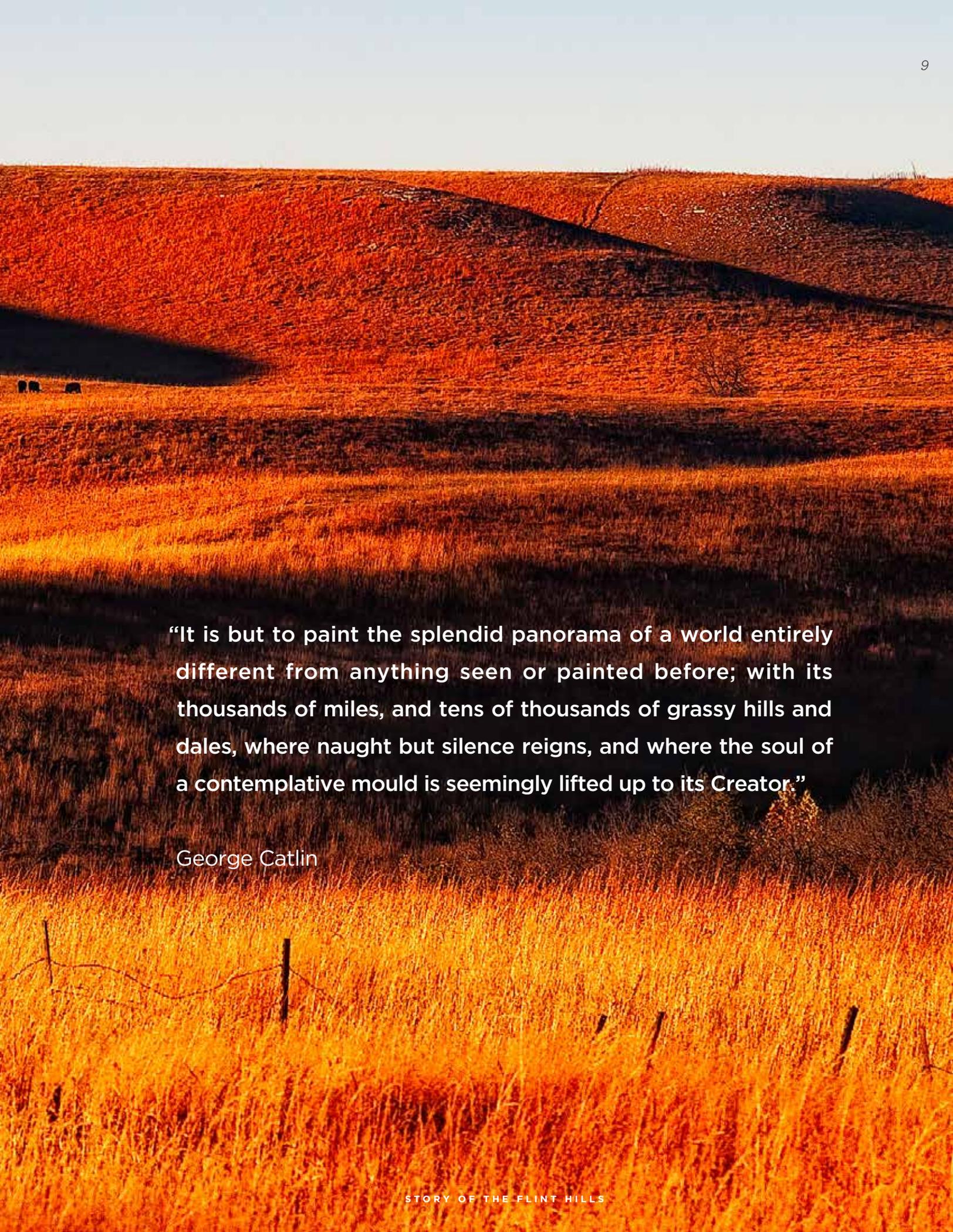
How does the prairie cultivate cooperative relationships?

Fungi form symbiotic mycorrhizal relationship with plant roots. The hyphae of these fungi grow out from the roots into the soil where they forage for nutrients that plants have a hard time accessing. In return, plants deliver carbohydrates to the fungi. This relationship makes plants healthier. Fungi move these materials to the plant roots while decomposing dead organic material, keeping these materials in a close loop between plants and themselves. This cycling of carbon, nitrogen and phosphorous is key to a healthy tallgrass prairie ecosystem, as it affects productivity and diversity

How can rural communities in the Flint Hills cultivate cooperative relationships?

How did a regional hotel owner help to forge cooperative relationships with other tourism and hospitality businesses, ranchers, regional artists, historical societies, land owners, preservation groups, and regional parks to provide unique opportunities for visitors to have an authentic Flint Hills experience in a way that provides additional income to many small businesses, satisfies visitors, and aides in the preservation of the built and natural environments? Experience the Flint Hill Tours and find an adventure.



A landscape of rolling hills covered in golden-brown grass under a clear sky. The hills are bathed in warm, golden light, suggesting late afternoon or early morning. The foreground is dominated by tall, golden grasses, and a simple wooden fence runs across the lower portion of the frame. In the distance, a few dark silhouettes of trees or structures are visible on a hillside.

“It is but to paint the splendid panorama of a world entirely different from anything seen or painted before; with its thousands of miles, and tens of thousands of grassy hills and dales, where naught but silence reigns, and where the soul of a contemplative mould is seemingly lifted up to its Creator.”

George Catlin

III

HOW WE ARRIVED HERE

Planning for the Flint Hills

Recognizing that the Flint Hills tallgrass prairie is an increasingly threatened resource, that the region is simultaneously faced with economic challenges and new opportunities, and that there is a mounting effort to preserve native grasslands, the time is right for the creation of a regional plan that outlines an integrated, sustainable, and equitable future. This planning process, Flint Hills Frontiers, has galvanized stakeholders and the larger community to engage in a long-term implementation strategy and has created a road map for coordinating regional efforts that identifies opportunities to accomplish meaningful, measurable gains.

The act of planning is a communal agreement to work toward a better future. Flint Hills Frontiers was built around achieving consensus on a shared vision of the future. The consensus-based planning process included casual discussions, expert interviews, and extensive community dialogue. The collaborative relationships forged during this three-year planning process gave Flint Hills Frontiers a foundation for long-term success. While the planning effort has been thoroughly documented, it is the process itself and the relationships formed that are of the utmost value. Productive conversations and projects that seemed unattainable at the outset of the project are now underway. At each successive step of the creation of Flint Hills Frontiers, the vision has become clearer with inspired champions emerging to lead the way forward.

Just as the roots of the prairie grasses knit together for stability, the Flint Hills Frontiers planning process has reminded the fiercely independent people of the Flint Hills of their strong connections to each other and the environment that sustains them. Flint Hills Frontiers will continue to nurture relationships and build the constructive energy required to implement a plan of action. These relationships may include local municipalities working with private businesses, chambers of commerce partnering with researchers, tourism advocates collaborating with ranchers, and local artisans engaging with the public.

Flint Hills Frontiers has been building dynamic partnerships and facilitating a public discourse throughout the region. An implementation framework based on market realities, guided by smart physical planning, and a collective vision of the future has been established. By defining a set of goals and guidelines around seven issue areas (Natural Systems, Social Systems, Cultural Systems, Farming and Ranching, Opportunity and Community, Mobility and Transportation, Built Environment) and identifying the tools to address these issues, Flint Hills Frontiers is working to protect and nurture the region.





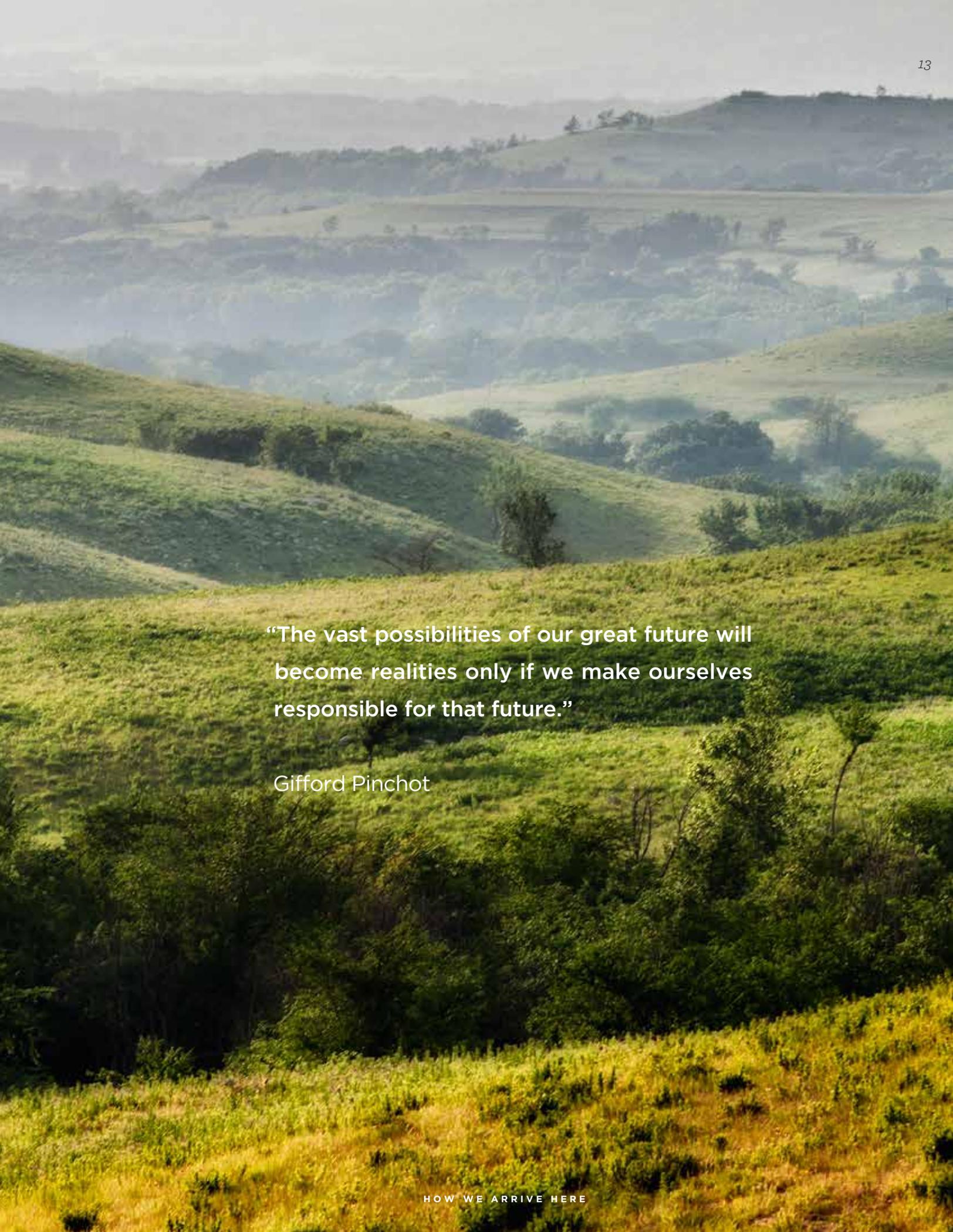
FLINT HILLS FRONTIERS

includes 9 counties and two tribal nations in Kansas and Oklahoma that encompasses the Flint Hills ecoregion, crossing political and social boundaries, and forming the context of this regional plan.

Flint Hills Frontiers was originated by two groups working together to advance the interests of the Flint Hills. The Flint Hills Work Group was established by Kansas Governor Sam Brownback to develop strategies to preserve the Flint Hills and leverage this unique resource to benefit communities in the region. The Flint Hills Regional Council is a voluntary affiliation of municipal and county governments centered around Fort Riley and the greater Manhattan metropolitan area. These organizations received a regional planning grant through the U.S. Department of Housing and Urban Development's Sustainable Communities program that allowed them to advance the aligned goals of these two organizations.

Flint Hills Frontiers is a comprehensive analysis and plan for the region that considers issues from preserving the natural environment to improving mobility and increasing employment. The plan has been driven by public involvement and is focused on creating the tools needed to implement positive change.





“The vast possibilities of our great future will become realities only if we make ourselves responsible for that future.”

Gifford Pinchot

IV

HOW THE PLAN WAS CREATED

Regional Planning Process

Developing a regional plan is an iterative process. Over the last three years stakeholders have worked together to develop a document, a framework, and a process that works for both their individual communities and for the greater region.

Gather Facts: Smart planning decisions rely on accurate and comprehensive information, and advancements in mapping technology allow for information-rich decision-making. Using Geographic Information Systems (GIS) technology, a powerful data and mapping analysis tool, and a variety of other software applications, paired with interviews of local issue experts, a sophisticated planning analysis was conducted of the region. The synthesized and distilled layers of geographic, demographic, and cultural information illustrate a mosaic of existing opportunities and constraints.

Build Consensus: There are many smart and dedicated people working to improve the Flint Hills region. Each

individual stakeholder, organization and government entity works in their own, sometimes divergent, self-interest. Flint Hills Frontiers incorporated all viewpoints to build an actionable consensus. By starting from a point of common understanding and appreciation for this special place, the planning process has successfully built consensus around a regional vision and goals.

Empower Leaders: The planning process has revealed a network of community leaders ready to promote good ideas and challenge conventional norms. A series of leadership workshops provided these individuals and organizations with the information they need to promote the regional goals and expand the network of advocates. These leaders will be implementing projects, programs, and policy that support the regional vision for the long-term.

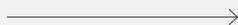
Promote Livable Communities: At the heart of the Flint Hills vitality is the health of the area’s rural communities. These communities have suffered from

WHY PLAN



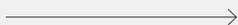
View the Big Picture

A region is like an organism and all the parts must work together in order to sustain the region’s future. A plan works to align programs, projects, and government in a mutually beneficial relationship.



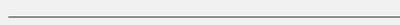
Build an Informed Constituency

The public has a primary role in creating any plan, and they are a strong constituency in seeing its successful implementation through in the future.



Coordinate Local Decision-making

Specific community goals in a plan allow local decision makers to align around a region-wide vision and ensure that all projects are supported by the larger community.



population decline and economic disinvestment. The long-term success of the small prairie town is intimately tied to the health of the tallgrass prairie. Fortunately, accessible communications technologies and an increasing respect for the natural beauty of the Flint Hills have improved the outlook and provided new prospects for many small communities. By utilizing existing infrastructure, improving the telecommunications network, and promoting smart development decisions, Flint Hills Frontiers illustrates a course of action for communities that are interested in using new tools to maximize their investments within a regional framework.

Enhance Conservation: The natural resources in the Flint Hills are the underpinning of any economic or cultural revitalization effort. The beauty of the Flint Hills is unquestionably unique, and its protection is critical to the well-being of every resident and visitor alike. Additionally, the international significance of the tallgrass prairie ecosystem has attracted attention from a wide variety of interest groups. Unlike many western states where the federal government owns

up to 70% of the total land area, only 3% of Kansas lands are under federal oversight. This statistic highlights the importance of private conservation efforts in the state and the need for a concerted strategy, which is enumerated in Flint Hills Frontiers.

Measuring Success: The measure of success for any plan is in its implementation. A clearly defined list of priorities and a set of metrics that can be used to evaluate successes and identify shortfalls has been established. Flint Hills Frontiers lists the necessary steps to complete the identified project tasks.

Enabling Market-Driven Economic Development: The economic viability of the Flint Hills is crucial to the long-term success of the region. By definition, economic development should attempt to increase the wealth of all people. Flint Hills Frontiers uses a market-driven approach to economic development. By establishing a consistent strategy that addresses many segments of the economy and identifies attainable improvement opportunities, Flint Hills Frontiers seeks to realize substantial and equitable economic gains in the region.



→

**Establish a Sound Basis in Fact
for Decisions and Increase
Transparency**

The data and analysis incorporated into a plan creates transparency in the process and allows decisions to be based in fact.



→

**Identify Local, Regional, and
National Indicators of Success**

You can only improve what you can measure. The metrics used to weigh a variety of issues will ensure that a region is moving in the right direction.



→

**Involve a Broad Array of Interests in
Discussion about the Future**

A plan that incorporates many different voices and a variety of interests ensures that recommendations are well-rounded and all-inclusive. This allows a region to advance in a way that is appealing to all groups.

Public Engagement - What We Heard

Flint Hills Frontiers was driven by the vision, priorities, and goals of community members. Many people were involved in crafting the plan through both innovative and traditional techniques. Each of the following groups and engagement exercises will continue to play a vital role in its implementation.

1. Community Meetings

During the first series of community meetings, community members worked to establish a common vision for the Flint Hills and more specific guidance for the seven issue areas. In a collaboration with the Kansas-based Public Square Communities facilitation team, community members working in teams crafted a unified vision by answering various questions about their ideal future Flint Hills. The vision statement (See next page) was generated during these meetings and became the touchstone for all of the Flint Hills Frontiers recommendations.

2. Flint Hills Forum

The Flint Hills Forum is an online engagement tool that facilitated conversations across the expansive geographic project area. Ideas submitted directly by community members and those uploaded from community meetings continued conversations and provided a means to further review and provide input at the convenience of stakeholders. Future participation on a website platform will continue to encourage implementation, community buy-in, and public awareness.

3. The Steering Committee

The Steering Committee is a small, diverse group of leaders from local, state, and tribal organizations as well as the private sector. Over the course of the planning process, the Steering Committee acted as a sounding board for plan development and are ultimately charged with providing a high level of feedback to guide plan recommendations into implementation.

4. The Technical Committee

The Technical Committee is composed of staff members from cities and counties throughout the region. This group is intimately aware of the infrastructure, design, and policy that currently supports communities in the Flint Hills. This group provided the on-the-ground knowledge necessary to ensure recommendations are feasible and integrated across diverse jurisdictions, and will continue to do so during implementation.

5. Implementation Network

The Implementation Network is the group of stakeholders, including but not limited to cities and counties, tribal and other governmental organizations, private businesses, landowners, community groups, and other associations that will work to implement Flint Hills Frontiers. The Flint Hills Regional Council is the convener of these stakeholders, bringing them together to identify strategic projects through a process of Strategic Doing that will create a culture of implementation for the long-term.





STAKEHOLDERS

A number of cities, counties, and other organizations have already committed to working together to implement Flint Hills Frontiers. This group includes the inaugural stakeholders as well as a growing number of collaborators. The stakeholder group played an oversight role in the creation of the final plan and are ultimately the leaders in implementing recommendations there within. Stakeholder groups:

Flint Hills Regional Council; the cities of Abilene, Alma, Alta Vista, Chapman, Clay Center, Council Grove, Dwight, Emporia, Grandview Plaza, Junction City, Leonardville, Manhattan, Randolph, Riley, Wamego, White City, and Woodbine; the counties of Chase, Geary, Morris, Lyon, Pottawatomie, Riley and Wabunasee; Camp Wood YMCA, Flint Hills Tourism Coalition, Fort Riley, Governor's Military Council, Kansas Horse Council, Kansas State Forest Service, Kansas State University, KSU Research & Extension, Emporia State University, Kanza Rail | Trail Conservancy, Osage Tribe, Pottawatomie County Economic Development, Priddle & Associates, Nature Conservancy, and the Symphony in the Flint Hills.

V

A REGIONAL VISION OF COLLABORATION

Vision Statement

The people of the Flint Hills
conserve the tallgrass prairie
valuable environmental services
and new opportunities in our
foster health wellbeing and
and welcome visitors to share
stories of our homeland.



s will work together to
ie for its scenic beauty and
vices, encourage growth
ur existing communities,
education of our residents,
are the beauty and great

Three Flint Hills Frontiers

The Flint Hills Work Group and the Flint Hills Regional Council created three priorities for the plan dubbed “The Three Frontiers.” These priorities are economic vitality, national defense, and cultural and natural resource conservation.

i. Economic Vitality

The Flint Hills is a unique asset to Kansas and northern Oklahoma, which can be leveraged to help sustain the economic viability of its smaller towns and outlying agricultural lands, while also ensuring the continued vibrancy of the region’s rapidly growing urban areas.

ii. National Defense

Fort Riley is a critical asset to national defense. By avoiding habitat degradation elsewhere in the Flint Hills, encroachment into Fort Riley’s training area can be avoided and its overall mission can be preserved.

iii. Cultural & Natural Resource Conservation

The Flint Hills contains history, heritage, cultures, and ecology found nowhere else in the world, and to sustain its people, economies, and ecosystems, careful and balanced stewardship of these resources is tantamount.

Three Outcomes

The Flint Hills Frontiers project aims to accomplish three major outcomes based on the three frontiers and initial stakeholder and community feedback. The three outcomes are a regional vision, identification of connections between organizations, resources, and issues, and a toolbox of solutions for voluntary use by local governments and private organizations.

i. Regional Vision

This plan has defined a vision for this region, which contains a diverse range of communities and interests and is united by the Flint Hills ecoregion. To successfully direct long-term growth and development in the Flint Hills region, the vision has come from the community. The hundreds of residents who participated in meetings and online are the source for ideas that will direct and guide future success in the region.

ii. Identify Connections

The future of the Flint Hills depends on thousands of overlapping decisions from local governments, civic organizations, private sector partners, and a host of others. By finding connections between these organizations and issues, the strongest opportunities will emerge to coordinate efforts in support of a common vision. Thinking about connections when designing policies and projects will maximize the impact of these decisions.

iii. Toolbox of Solutions

The regional plan will include a strategic set of voluntary policies and projects that local governments and private organizations may use to achieve their goals and the common vision. These recommendations will be visionary, yet realistic, far-reaching, yet implementable. By taking into account the community’s vision, stakeholder priorities, and the needs of local government, the Flint Hills Frontiers plan will help the region prosper in the future.



PRAIRIE INSIGHTS

How does the prairie embody resilience through variation, redundancy and decentralization?

The prairie thrives by incorporating a variety of duplicate forms, processes, and systems. Eighty percent of primary prairie vegetation are grasses from over 40 different species. The other 20 percent of primary vegetation consists of over 300 species of forbs and flowers, as well as over 100 species of lichens and liverworts and numerous species of woody trees and shrubs. 80 percent of the total biomass lies underground in a thick interwoven system of redundant and decentralized roots. The design of the root system allows grasses to flourish despite fires and extreme temperature swings.

How can the Flint Hills educational system become more resilient through variation, redundancy and decentralization?

To strengthen education in the Flint Hills region, a wider variety of academic and technical pathways should be created to include all learning styles, interests, and aptitudes. Traditional pedagogy should be integrated with new applied and immersion learning opportunities. Students should be given opportunities to contribute their unique gifts and talents through project based learning and apprenticeships.

VI

ISSUE AREAS





NATURAL SYSTEMS

Life in the Flint Hills depends on a healthy prairie. The tallgrass ecosystem has formed rich soils that holds moisture and nutrients, creating soil and protecting against drought, filtering and storing groundwater, producing food stuffs, and creating the conditions for a vibrant ranching and agricultural economy. What can we all do to keep the Flint Hills alive and thriving?

Regional Trends

The Flint Hills features one of the best preserved assemblages of tallgrass prairie in the world. The shallow soil of the Flint Hills and the hard limestone underneath prevented plowing of the land and the tallgrass prairie provided a perfect environment for grazing livestock. In addition to nutrients for livestock, the tallgrass prairie provides a wide variety of valuable services and products. From products such as stone, oil, and helium to ecological services such as climate regulation and water purification, the Flint Hills' natural systems are diverse and rich. Major threats to the tallgrass prairie ecosystem include invasive species such as *Sericea Lespedeza* and the encroachment of woodlands due to a lack of regular controlled burning.

Goals

- **Conservation:** Conserve tallgrass prairie ecosystem through responsible land management and development policies
- **Awareness:** Spread awareness about importance of the tallgrass prairie ecosystem.
- **Water:** Treat every drop of water as a precious resource.
- **Air Quality:** Promote clean air while managing the tallgrass prairie landscape.

Toolbox

1. **Protect Water Quality & Avoid Runoff**

Protecting water quality and avoiding runoff that causes erosion is important to maintaining the health of the Flint Hills. Riparian vegetation can reduce or prevent soil erosion, improve air and water quality, and assist in recharging groundwater and aquifers. This strategy focuses on practices to preserve, repair, enhance, and protect Flint Hills water sources and conveyors.

2. **Encourage Productive Conservation Programs**

There are existing programs that both private land owners and public entities can use to conserve prairie land and continue to use it for productive purposes. Private property owners can take advantage of conservation easements to permanently conserve a valued landscape while maintaining ownership.

3. **Noxious and Invasive Species Education & Control Methods**

This strategy supports programs and research to control noxious and invasive species. Education and partnerships are key to this strategy and tools include support for research agencies to analyze best practices, advocacy for regional management networks, and support for land owners to implement control programs.

4. **Promote Appropriate Burning of the Prairie**

Controlled burning smoke models inform land owners and citizens alike on the impacts fire management practices have on regional air quality. A Smoke Management Plan could continue to be refined through the development of a regional burning model, an advocacy network of trusted landholders, and tools that make using and reporting on the model easier for everyone. In addition, the creation of a Fire Tools Coop could provide small landowners with the guidance to adequately and safely burn their land.

5. **Educate Citizens about the Flint Hills Ecosystem & the Grasslands of the World**

Conservation of the Flint Hills' natural system depends on educating people about the importance of its ecological function. Providing all Flint Hills citizens, young and old, with a better understanding of their place within the region and the importance of the grasslands to the world can create stronger connections, and help all to become productive members of the Flint Hills ecosystem. Regional educational partners, from the Flint Hills Discovery Center, Kansas State and Emporia State Universities, and local USDs could serve as regional facilitators for building educational curriculum modules that bring ecology, food systems, and rural economics into every classroom and cultural center in the Flint Hills.



Natural Systems Factsheet

Ecological Services

Provisioning Services

- Provides biodiversity and resiliency to disruptions to the ecosystem
- Provides food and habitat for wildlife
- Provides high quality forage for livestock
- Provides food for humans (game, cattle, bison, wild foods)
- Provides energy (hydropower, wind power, solar power)
- Provides minerals (halite salt, gypsum, sand, gravel, coal, limestone, granite, clay, gemstones, cultured quartz, propane, volcanic ash)
- Provides petroleum (oil and gas)
- Provides helium (nation's leader)
- Provides pharmaceuticals, biochemical, and industrial products

Regulating Services

- Stores vast amounts of organic carbon that would be oxidized and released as a greenhouse gas
- Regulates climate and temperature
- Filters and purifies rain and water runoff from human habitation and agriculture through dense soil and perennial roots
- Mitigates sedimentation and soil erosion
- Decomposes biomass (litterfall)
- Decomposes livestock and wild animal wastes
- Purifies air and filters particles
- Pollination of crops and other plants and trees
- Regulates pests and diseases

Supporting Services

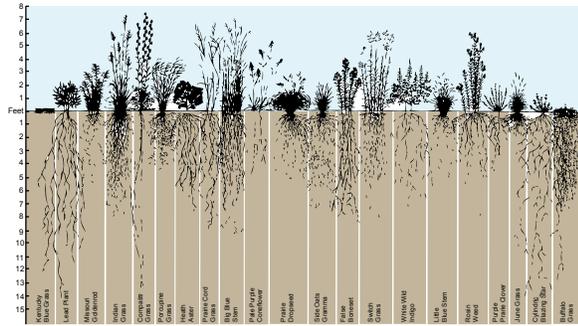
- Nutrient cycling (biogeochemical processes: nitrogen, minerals, sulfur, carbon, water, phosphorus, oxygen)
- Dispersal of seeds (crops and other plants)
- Production of oxygen (photosynthesis) and biomass
- Production of chemical energy and absorption of ultraviolet light
- Mitigation of albedo and temperature

Cultural Services

- Provides clean air, water, wildlife and open space (quality life conditions)
- Provides habitat for recreation, tourism, and aesthetic (scenic drives, hiking, night sky viewing, bird watching)
- Provides and maintains cultural identity (unique ecosystem and biological species)
- Provides for intellectual creativity (poetry, writing, music, photography) and spiritual inspiration
- Provides habitat for scientific and innovative discovery

Credits:
Tallgrass Prairie Facts Diagram modified from: <http://www.eatology.com/how-to-care-for-a-green-lawn-organically>
Remaining Flint Hills Tallgrass Prairie Figure modified from Hamilton, 2007 and DeLuca and Zabinski, 2011
Stalk designed by Samuel Eidam from The Noun Project
Mineral designed by Roberto Notarangelo from The Noun Project

Tallgrass Prairie Facts



The Flint Hills may look deceptively empty to outsiders. In reality, the tallgrass prairie is teeming with life. Hidden among the 500 species of grasses and flowers live nearly 150 species of birds, 39 species of reptiles and amphibians and 31 species of mammals. A dense underground network of roots reaches as deep as 15 feet, anchoring soil and producing 24,000 pounds of roots per acre. One acre of native prairie can absorb 9 inches of rainfall per hour before runoff occurs and can intercept as much as 53 tons of water during a one-hour rain event. The foliage above the ground represents a surface area five to 20 times larger than the soil beneath it. Higher diversity of plant species prevents and reduces weed invasion.

Remaining Flint Hills Tallgrass Prairie



Figure modified from Hamilton, 2007 and DeLuca and Zabinski, 2011

The tallgrass prairie of the Flint Hills is a tiny remnant of a vast prairie that once covered almost a third of North America. Within one generation, 230 million acres of prairie were tilled and planted. Kansas and Oklahoma prairies partially escaped the same fate due to a unique geologic feature. The rocky layers of chert or flint escarpments that characterize the Flint Hills landscape obstructed plowing, allowing instead a dependable grazing and haying opportunity. In fact, some prairie parcels have been hayed and harvested for over 75 years with no fertilization or detectable decline in yield or soil fertility (Culman et al., 2010). Careful management in the early years has maintained a cover of mostly native grass species.

Today, 37% of the original Flint Hills tallgrass prairie remains, while overall only 4% of the historical Great Plains tallgrass prairies remains. The Flint Hills-Osage ecosystem endures as one of the largest remaining tracts of tallgrass prairie.

The once contiguous Flint Hills prairie is presently a fragmented mosaic of cattle pastures, hay meadows, ranches, roads and fences. Fragmentation leads to loss of species and thus, loss of connections between species. Not only does this reduce the functionality of the prairie, fragmentation also creates challenges for land managers. For example, prescribed fires that maintain the vigor of spring grasses are much more difficult to manage because of scattered ownership and fences.

The productivity of the Flint Hills has been maintained for over a century by hard-working ranchers who understand that native grasses are a crucial element of a healthy prairie. We are now realizing that native grasslands can survive and thrive if the connections are preserved. A natural system that is resilient to environmental disruption is more likely to service the local economy and preserve the treasured lifestyle of Flint Hill residents.

CULTURAL SYSTEMS

The rich cultural heritage of the Flint Hills is a treasure to be celebrated and fostered as the region faces tough challenges and seeks to find creative solutions. The people of the Flint Hills are the heartbeat of the tallgrass prairie. The region's agricultural, educational, and military institutions preserve its heritage while community gatherings and artistic creations are expression of its people. The Flint Hills' cultural systems are a vital resource for the vision of its path forward. How can we support and create new institutions to preserve and expand our culture?

Regional Trends

Cultural systems include the history of people in the region, the current way of life, and the values of the people living in the Flint Hills today. The Flint Hills weaves a long and rich history from the Native Americans who managed the land, to the westward expansion of the United States as exhibited by the many historic trails, the Dust Bowl, the establishment of Fort Riley and State Universities, and the development of the Interstate Highway system. Institutions are the guardians of cultural systems. Supporting cultural institutions will ensure the region's culture remains strong. Cultural activities are also an important part of the economy. Hundred of businesses and thousands of jobs are related to cultural activities.

Goals

- **Celebrate Culture:** Celebrate the culture of the Flint Hills and spread awareness of Flint Hills cultural institutions.
- **Youth:** Retain and attract youth population with expanded opportunities, and increase awareness to attract diversity.
- **Arts:** Promote a strong arts culture in the Flint Hills.
- **Amenities:** Promote cultural and recreational amenities and destinations in the Flint Hills.

Toolbox

1. **Develop National Recreation/Cultural Destinations**
Create well-known outdoor recreation programs and marketing that attracts a national audience to the rare and beautiful ecological treasures of the Flint Hills.
2. **Connect Arts Organizations and Resources**
Create opportunities for Arts Organizations to work together to seek funding for the arts, to share facilities and resources and to offer arts incubators, educational programs, and generally to attract more artists and creatives to the landscape, the sky, and the lifestyle of the Flint Hills region.
3. **Develop Tribal Cultural Assets**
Support local tribal efforts to preserve and promote a better understanding of tribal languages, historical events and figures, belief systems, and environmental conservation practices through cultural tours, events, and other educational programs.
4. **Support and Connect Civic Leadership Organizations**
Engaged community members taking responsibility for the betterment of their communities are a key ingredient to a healthy region. Develop various forums for individual citizens, business owners, institutions, and organizations to connect on shared concerns across the great distances of the Flint Hills region in order to provide ways to share best practices, resources, and a structure for accountability.
5. **Celebrate the Cultural Impact of Fort Riley**
Fort Riley has long had a major economic, environmental, and cultural impact on the region. Its history, military culture, current initiatives, and environmental protocol have wide spanning implications for the future of the region. Cultivate a wider awareness of this culture, past and present, to build stronger bridges between the Fort and its surrounding communities.

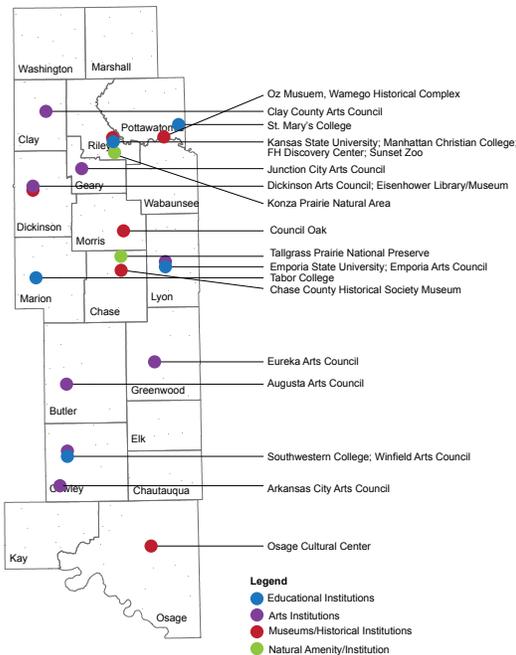


Cultural Systems Factsheet

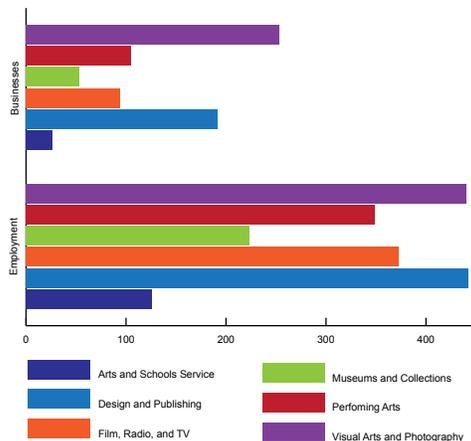
Flint Hills History Timeline

- **11,000 B.C.** - Clovis people enter the Flint Hills
- **3,000 B.C.** - Tallgrass prairie develops
- 
- **0 A.D.** - Native Americans establish villages in Flint Hills as evidenced by pottery shards
- **1200** - Pawnee and Osage Tribes settle in the Flint Hills
- **1780** - Kaw Tribe moves west to modern day Manhattan
- 
- **1803** - Louisiana Purchase
- **1806** - Zebulon Pike passes through the Flint Hills
- **1852** - Fort Riley established
- 
- **1854** - Kansas Territory opens for settlement
- **1860s** - Arrival of cattle drives from Texas, beginning of ranching industry in Flint Hills
- 
- **1861** - Kansas becomes a State
- **1863** - Kansas State University and Emporia State University established
- 
- **1870-4** - Osage, Kaw, and Pawnee tribes forced to Oklahoma reservations
- **1934-6** - Dust Bowl
- 
- **1956** - Interstate Highway Act
- 
- **1970s** - Establishment of first Tallgrass prairie reserves
- **2005** - Base Closure and Realignment Expands Fort Riley
- **2009** - Manhattan selected as home to National Bio and Agro-Defense Facility (NBAF)

Flint Hills Cultural Institutions



Flint Hills Arts and the Economy



The Flint Hills landscape reflects a long, rich history. The 6 million acres of this EcoRegion have been through periodic transformations that Paleocologists have traced back more than 600,000 years. Modern, highly seasonal conditions were established around 12,000 years ago; these climatic conditions have influenced the presence and behaviors of plant, animal and human communities over time. People have inhabited the Flint Hills for at least 13,000 years. For more than 5,000 years, the Flint Hills landscape has hosted great seas of grass that served as home to bison, elk, pronghorn, greater prairie-chicken, and grasshopper sparrow. Native Americans formed villages in the Flint Hills approximately 2000 years ago. Native people made their living from the abundant natural resources that changed seasonally, grew under the blazing sun, and burnt under lightning bolt and controlled burning. Plant and animal communities introduced by humans have changed the Flint Hills landscape drastically over the last 160 years. During the frontier age, the growth of the United States of America and the turn towards Manifest Destiny brought forts, settlers, farmers, ranchers, agriculture, commerce, and industry. The Kansas Territory opened for settlement in 1854. With the plow, roads, water sequestration, and the movement of increasing numbers of people the landscape of the tallgrass prairie became fragmented, and in some parts disappeared.

Controlled burning of the prairie is a practice that was started by Native Americans long before the area was recognized as Kansas Territory. Each spring, the Kansa tribe would craft balls of dried prairie grass wrapped in buffalo hide, set them afire, and drag them across the prairie. This practice maintained the grassland and created better grazing conditions for Bison, a central part of the Kansa culture.

SOCIAL SYSTEMS

Flint Hills' social systems, the knowledge and support that come from neighbors, family and friends, and institutions, are the foundation of the region's health and well-being. Before devoting energies to expressing culture and lifting up communities, the Flint Hills needs to be able to put food on the table, clothe and educate its children, and save for the future. The health and wellbeing of residents and nature of the Flint Hills are key to a vibrant, sustainable future. Kansans have a long history of strong self-sufficiency, but even with the worst of the recession behind us, real disparity and hardships persist, particularly in rural communities. How can we help create a supportive network of programs that can creatively collaborate and pool their limited resources to more efficiently help maintain an acceptable standard of housing, education, and health care for everyone?

Regional Trends

Social systems refer to the health, education, and wellbeing of the people living in the Flint Hills. Poverty is below the national average of 13.8% in most counties. Riley and Lyon counties have the highest poverty rate. There is educational disparity across the region in terms of both high school and college educational attainment rates. The region is higher than the national average in number of people with high school diplomas, but the region is below the national average in terms of people with a college education. In the entire United States, all age groups are increasing. In the Flint Hills only the 40-59 age group is increasing. Children, youth and young workers, and seniors are decreasing in population across the region. These trends also differ dramatically across urban and rural areas.

Goals

- **Health:** Improve quality of life by promoting a healthy and active lifestyle.
- **Education:** Strengthen the education system in the Flint Hills region.
- **Civic Engagement:** Develop a strong culture of civic engagement and leadership.
- **Service:** Expand individual and organizational involvement in community service.

Toolbox

1. **Strengthen Public Schools**

Public schools are central to ensuring the youth of the Flint Hills have opportunities in the future and become well-rounded citizens. This tool supports funding public schools, strengthening core curriculum, and updating programs to include traditional 4 year college preparatory work and technical career pathways.

2. **Provide Efficient Services in Rural Areas**

In rural areas, delivering governmental services through separate facilities has a high cost and low convenience. Transforming government facilities into multipurpose service hubs, one-stop shops, could reduce costs and increase convenience. Accessibility to government services in rural areas is critically dependent on mobility. The sick, the elderly, the disabled, and those without access to transportation have limited access to these services. Trained mobile service agents could travel and deliver needed services to such persons, and clients should be screened to establish eligibility for the services provided. Mobile service agents should provide additional services related to voter registration, driver's license / identification, social security, property tax, and motor vehicle registration.

3. **Improve Public Health and Wellbeing**

Improving health and wellbeing in the Flint Hills includes support for physical and mental health programs, making goals for improvement, and measuring progress. Kansas University is working to improve health in the rural parts of the state by training doctors, offering incentives, and developing technology, such as telemedicine.

4. **Improve Opportunities for Aging in Place**

This strategy encompasses developing neighborhoods, housing, and services to support "aging in place." This tool includes local communities adopting aging in place design guidelines for both housing units and neighborhood design standards, and enhancing city services, such as public transit, with the elderly in mind.

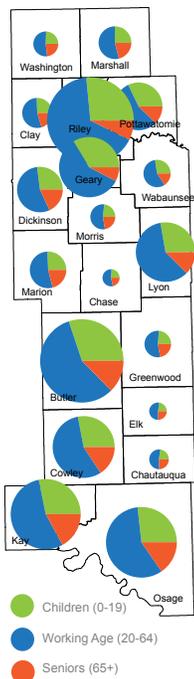
5. **Develop a Flint Hills Volunteer Hub**

The dispersed nature of rural populations means that access to people and skillsets for addressing common problems and opportunities is limited. At the same time, rural societies have a tradition of helping each other. Volunteerkansas.org is a website that connects volunteers with various opportunities. Investigate expanding this opportunity and its reach to all communities of the Flint Hills.

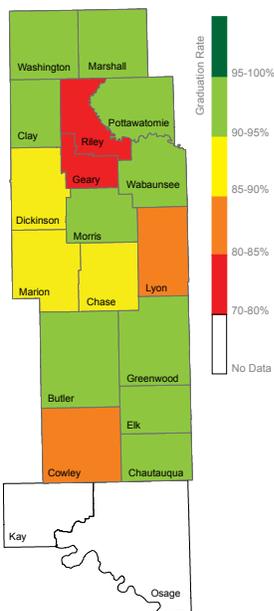


Social Systems Factsheet

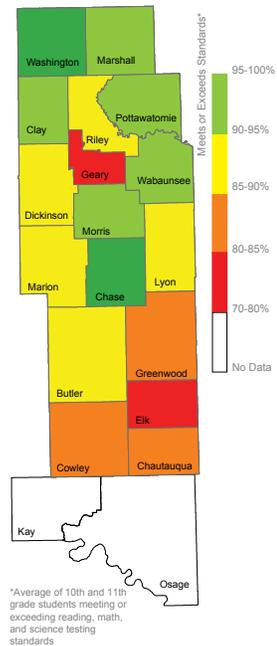
Age and Population



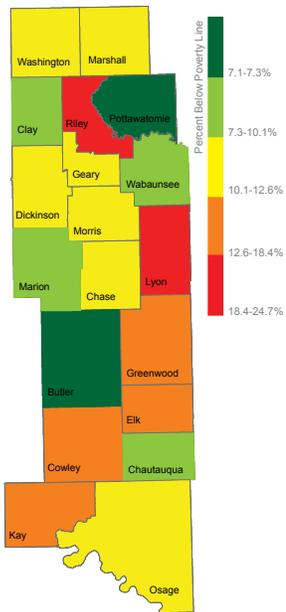
Education - High School Graduation Rate



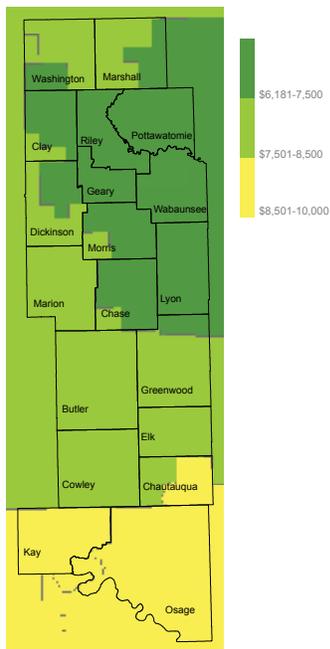
Education - Testing Performance



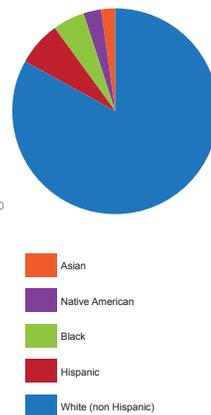
Poverty



Per Capita Medicare Costs



Flint Hills Racial/Ethnic Diversity



*U.S. Department of Commerce, Census Bureau, 2010 Decennial Census

FARMING AND RANCHING

Farming and ranching are essential to the way of life in many Flint Hills communities and the stewards of the tallgrass prairie. Of the 4% of the tallgrass prairie that endures, over 75% resides in the Flint Hills. This is primarily due to the working farms and ranches that have served for generations as the economic engine of Kansas. Farming and ranching form the basis of cultural life for much of the Flint Hills. How can we continue to support farming and ranching while adapting practices to a changing market and ecological condition?

Regional Trends

Farming and ranching are a pillar of the economy of the Flint Hills. Between the years of 1997-2007, the amount of land devoted to pastures and cropland decreased, whereas woodland increased. Over the same time period, the number of farm and ranch operations decreased while sales increased. This suggests a consolidation of farming and ranching operations.

Goals

- **Stewardship:** Continue farming and ranching practices that enhance conservation of the prairie ecosystem.
- **Local Food:** Increase the amount of locally produced foods that are available to local consumers.
- **Family Farms and Ranches:** Promote smaller, family sized farms and ranches. Improve quality of life for farmers and ranchers.
- **Marketing:** Market Flint Hills products nationally.

Toolbox

1. **Promote Agritourism**

Coordinated tourism events are beneficial for individual farms and ranches and for the community. Local and regional events can attract tourists, encourage repeat visitors and heighten regional awareness. They celebrate local treasures and help build a cultural identity, and support increased development improving the overall economy.

2. **Explore Innovative Farm and Ranch Practices**

This tool is about recognizing and promoting all of the innovative farming and ranching practices happening regionally that result in conservation of energy, water, and the land's many other natural resources. Working with existing organizations with a conservation mission to create an inventory of strategies and other tools which will help to create a stronger network of farmers and ranchers to discover what works both in terms of protecting the land, and the economics of farm and ranch businesses. Developing a robust dialog regionally about what works and what implementation challenges there are to overcome is an important aspect of this tool.

3. **Market Flint Hills Farm and Ranch Products**

This tool supports the development and growth of a brand for Flint Hills products that furthers the Flint Hills' status as a home for high quality products. Work with producers and buyers to refine the Flint Hills brand, and connect it with the "From the Land of Kansas Brand" being developed by the Department of Agriculture. Regional jurisdictions and partners should fund a regional branding campaign and develop a coordinated marketing strategy that puts a 'face' to the region for the outside world.

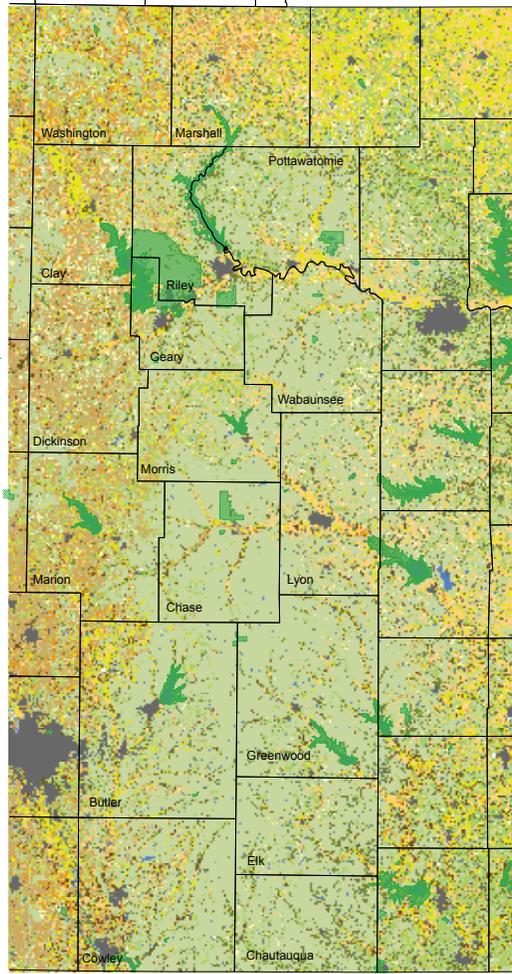
4. **Enable Youth to Continue and Start Farming and Ranching**

Conduct a longitudinal study that tracks youth interests in the future of rural America and agricultural practices. Encourage farm incubators, typically one or more parcels of land, that are set aside in a trust or easement specifically dedicated to controlled-lease operations that encourage small-scale and innovative agricultural practices that might otherwise be discouraged by large scale farm economics. Connect new, young farmers seeking to develop their own enterprise to technical assistance programs and other services at these incubators in exchange for some form of "rent", such as fresh farm products or other services donated to communities in need. Work with local businesses to develop a regional 'entrance' and 'exit' survey for employees to capture feedback on local assets and area deficiencies for future economic development planning. Develop a similar survey for high school and college students in the region to understand what it takes to keep youth in the Flint Hills or win them back.



Farming and Ranching Factsheet

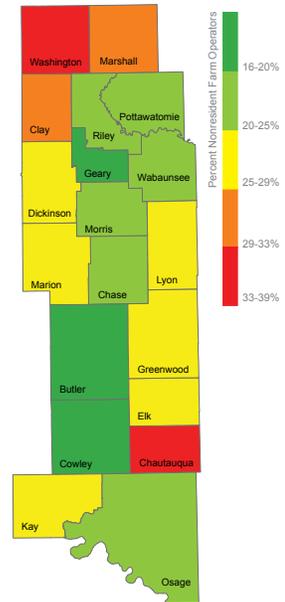
Land Cover Information



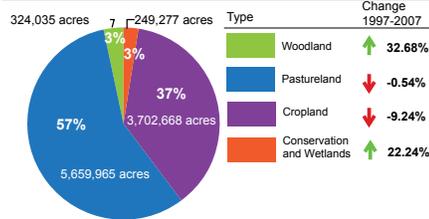
Legend

- Protected Areas
- Urban Industrial/Commercial
- Urban Residential
- Urban Openland
- Urban Woodland
- Urban Water
- Non-Irrigated Corn
- Irrigated Corn
- Non-Irrigated Soybean
- Irrigated Soybean
- Non-Irrigated Sorghum
- Irrigated Sorghum
- Non-Irrigated Winter Wheat
- Irrigated Winter Wheat
- Non-Irrigated Alfalfa
- Irrigated Alfalfa
- Fallow
- Double-Crop
- Conservation Reserve Program
- Warm-Season Grassland
- Cool-Season Grassland
- Periodic Emergent Vegetation
- Woodland
- Water
- Other

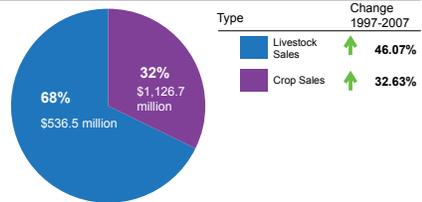
Nonresident Farm Operators



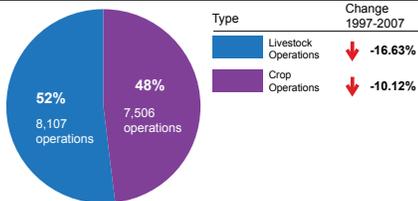
Types of Land



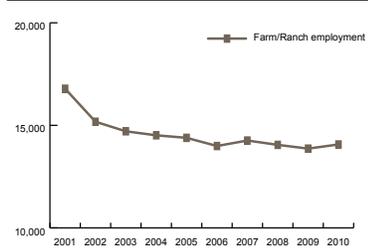
Flint Hills Farm/Ranch Sales



Flint Hills Number of Operations



Flint Hills Farm/Ranch Employment



OPPORTUNITY AND ECONOMY

The Flint Hills Frontiers is invested in expanding, creating, and attracting meaningful jobs, relationships, and places that allow the region to flourish into the 22nd Century. In the Flint Hills, these opportunities range from age-old ranching practices on the tallgrass prairie to the latest research advances at Kansas State and Emporia State Universities. From international companies to the most local of businesses operating on Main Street, Flint Hills Frontiers reaches across a dynamic landscape. How can we expand economic opportunity for all people of the Flint Hills?

Regional Trends

Opportunity and economy includes the growth and decline of industries and geographic areas in terms of employment and economic production. The largest industry by employment is government, which includes local municipalities, counties, school districts, and state universities. Although it is the largest employer, this sector has remained fairly constant over the past 15 years. Retail trade is the second largest employer in the region, and this sector has declined slightly following the 2008 recession. The US military is the third largest employer, followed by manufacturing and farm employment (including ranching operations). Military employment nearly doubled after the 2005 Base Realignment and Closure Act. Manufacturing employment decreased during the recession starting in 2007, whereas farm employment has been steadily decreasing for decades. Most of the employment growth has occurred in urban areas, which are among the nation's fastest growing, while rural areas continue to struggle.

Goals

- **Entrepreneurship:** Create and strengthen systems through infrastructure and strategic density.
- **Jobs:** Create sustainable career opportunities in the Flint Hills.
- **Tourism:** Champion initiatives to increase visitors to our region and promote a positive image of Flint Hills cultures around the world.
- **New Models:** Develop innovative business models to allow businesses to thrive and create new resources and opportunities for growth. Share economic information throughout the region.

Toolbox

1. **Improve High Speed Internet Connectivity**

The future of rural America may be more dependent on access to the internet than any transportation system. As the American workforce ages, and employment landscape shifts to a more entrepreneurial-driven culture, rural America will be faced with a growing digital-divide. Kansas rural communities should devise rural plans and platforms to develop solutions for the future.

2. **Boost Entrepreneurship**

Communities throughout the country are coming up with new ways to encourage start-ups and entrepreneurs through local angel investment funds and other innovate approaches. One technique is competitive and crowd funded business plan competitions. Often coordinated with business and economic training and with business or technical schools these competitions can spur innovation and develop local partnerships that build future economies.

3. **Promote a Flint Hills Brand**

Support the development of a new regional certification that would promote the integrity of livestock grown in the Flint Hills and fill a niche in this quickly expanding market. The establishment of certification procedures could open new avenues for local producers, distributors, and marketers of Flint Hills beef products. Flint Hills branding could also expand to other, non-food based market sectors and provide a broad umbrella for culture and tourism opportunities.

4. **Expand and Improve Succession Planning and Training**

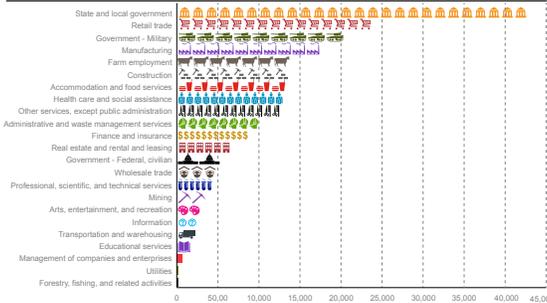
Rural America faces a growing challenge, as population continues to decline and towns and economies shrink, many of the businesses that came to be the cornerstones of many communities now face closure due to a failure to find someone to continue their practices. KU's Red Tire succession planning and partnering system is one example of how succession training might be developed to help rural communities in the future. It currently serves a certain sector of the economy, but expansion could help rural communities adapt and thrive in the future.

5. **Map Regional Assets and Resources**

The Flint Hills Regional Council (FHRC) currently supports planning for a seven-county region immediately surrounding Fort Riley and is currently working to coordinate GIS modeling of this region. The Frontiers project has created new connections, which, if coordinated to the Regional Hub, could provide a centralized place for mapping regional assets, from heritage and tourism to industry and leadership.

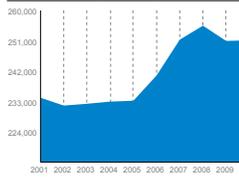
Opportunity and Economy Factsheet

Employment in the Flint Hills (2010)

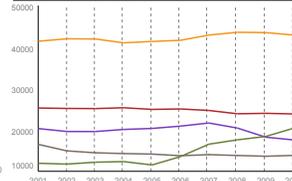


State and local government is the largest employer in the 19 county Flint Hills region. This sector of the economy includes municipalities, state offices, and state universities, such as Kansas State University and Emporia State University. Other major industries in the region include retail trade, military, manufacturing, farming, construction, and accommodation and food services.

Total Employment (2001-2010)

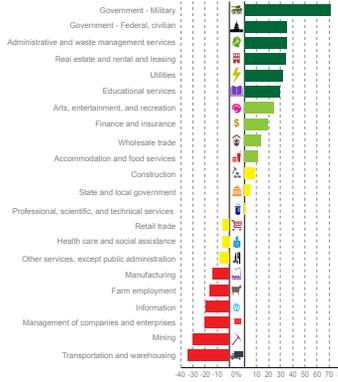


Employment Trends - Top 5 Industries



Despite being two of the largest sectors of the economy, manufacturing and farming are shrinking. Manufacturing saw employment decline after the economic crisis of 2008. Farm employment however, has been steadily declining over the past decade.

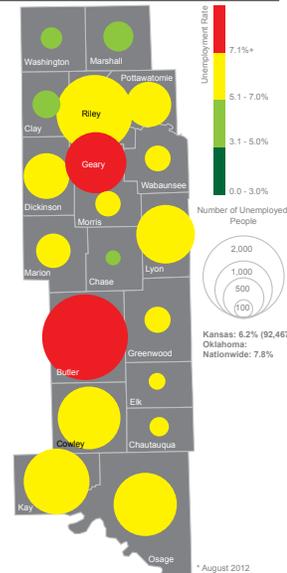
Percent Change of Employment by Industry 2001-2010



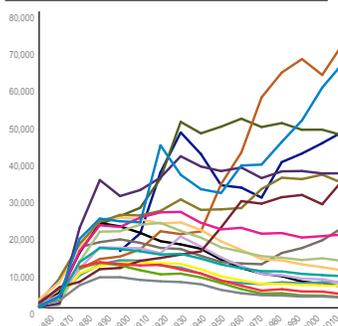
The two fastest growing industries are military and federal, civilian government. The military employment nearly doubled following the base realignment and closure strategy in 2005. This is an unstable basis for a growing economy, because employment growth or decline is based wholly on external forces.

The growth in arts, entertainment, and recreation and accommodation and food services could point to an emerging tourism trend. The natural environment is a major asset of this region, and ecotourism could be growing part of the economy.

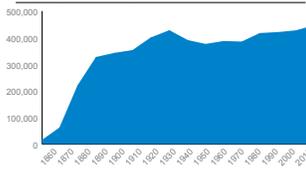
Unemployment in the Flint Hills



Population Change 1860-2010



Total Population Change 1860-2010



Credits:
 US, Department of Labor, Bureau of Economic Analysis
 US, Department of Commerce, Bureau of Economic Analysis
 US, Department of Commerce, Census Bureau
 Shopping Cart designed by John Casella from The Noun Project
 Heater designed by Berndt Blönn from The Noun Project
 Capital designed by Jonathan Keating from The Noun Project
 Pickaxe designed by Luke Anthony Firth from The Noun Project

MOBILITY AND TRANSPORTATION

Whether riding a bike down Main Street, walking on the Flint Hills nature trail, or in the stands at a Kansas State Wildcats victory, there are endless things to see and do in the Flint Hills and endless frontiers to explore. To travel the Flint Hills, one is taken deep into the heart of America, through nationally-designated scenic byways and meandering country roads that while beautiful are not always easy to reach. Getting from point A to point B sounds simple enough, and yet it can be challenging. From work to play, parties to faith, how can transportation systems and expanded mobility options connect the region to the many things that are vital to its way of life?

Regional Trends

Mobility is about how people and goods move around the region. It includes infrastructure, modes of travel, and proximity of houses and jobs. Flint Hills residents drive a long way to work. Many counties exceed the Kansas and US averages for percentage of people driving more than 30 minutes and an hour to work. The Manhattan Metropolitan Statistical Area has much higher commuting distances than even nearby metro areas. This results in a much higher transportation cost as a percentage of household income in the Flint Hills than the national average. Transit ridership is also increasing as the cost of driving continues to rise.

Goals

- **Multi-Modal Transportation:** Pursue innovative multi-modal transportation system opportunities, including transit, carpooling, car-sharing, bicycle, pedestrian, waterway, trail, and automobiles.
- **Technology/Modernization:** Improve the transportation system through technology and modernization.
- **Movement of Goods:** Increase the efficiency of the movement of goods and freight throughout the region.
- **Economic, Environmental, and Social Impacts:** Plan responsibly for the transportation system's economic, environmental, and social impacts and interdependencies.

Toolbox

1. **Improve Regional Transit**

With the aging rural population and changing economic landscape, regional transit systems are becoming more important for transporting greater proportions of our 'at-risk' populations to basic services and daily needs. Regional transit can help economies and the health of communities by filling the transportation needs for segments of the population with decreasing alternatives.

2. **Add Scenic Bikeways to the By-ways Program**

The Flint Hills is home to beautiful scenic byways that act as conduits of commerce and culture to and through the region. The growth of experiential tourism and adventure tourism demands that states and local governments plan for a more 'embedded' experience in transportation, welcoming hikers, bikers, and new modes of travel. Kansas and state and regional partners should develop new scenic bike-ways, trike-ways and hike-ways that encourage residents and visitors alike to experience the Flint Hills.

3. **Improve Transportation Infrastructure**

Providing additional options and better connectivity throughout the region is an important issue to residents, business owners, and officials throughout the region.

4. **Encourage Alternative Transportation Choices, Mixed-Use Development, and Streets that Welcome Walkers, Cyclists and Drivers Equally**

Just as America has seen the benefits in investing in Safe Routes to School, America's communities must also face the growing challenges of equipping America's transportation systems with 'age appropriate' solutions for an aging population. Building "complete streets", roadways that are built to promote all forms of transportation, from walking to transit and bicyclists to drivers, will allow communities to transition to a more efficient and mobile future.

5. **Develop a RideShare Program**

Investigate public-private partnerships and other means to provide rideshare capability to areas outside the current operations to bridge identified service gaps. Utilize the latest technologies to connect transit to riders locally and regionally.



Mobility and Transportation Factsheet

Existing Infrastructure



Transportation Costs

Flint Hills Average Transportation Cost as % of Household Income

36%

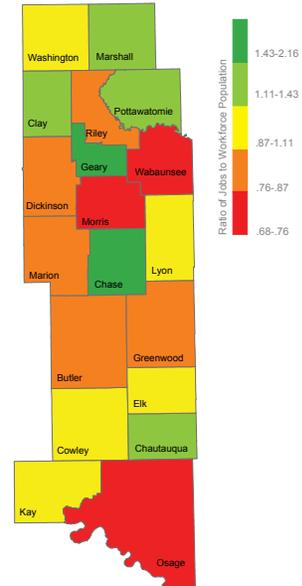


United States Average Transportation Cost as % of Household Income

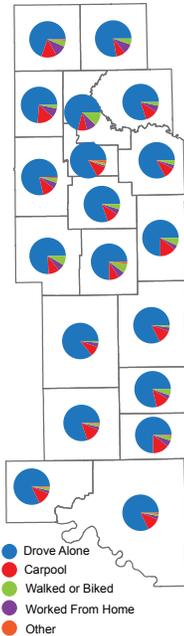
19%



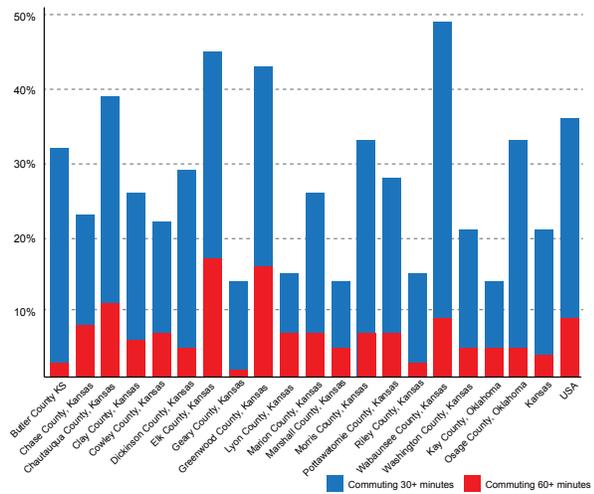
Jobs to Population Ratio



Modes of Travel



Commuting Distances



BUILT ENVIRONMENT

The built environment has a major impact on our quality of life, economy, and natural environment. The kind of structures we live and work in, the proximity of home and work, and whether we have access to parks and trails are all built environment issues that have wider impacts on the cultural heritage, health, and well-being of the region. Is there the right amount of retail space? Are factories located in the most efficient space relative to their needs? How do we revitalize traditional downtowns and attract tourists?

Regional Trends

Built environment considerations include the preservation of the region’s historic Main Streets, housing, land use, infrastructure, and urban design. Several organizations are working to preserve and enhance the region’s historic Main Streets, such as Emporia Main Street, Inc., Downtown Manhattan, Inc., and these organizations provide a model for other Flint Hills communities. Housing in the Flint Hills primarily consists of single family homes that are owned by the occupant, however, there is greater demand for rental and apartment housing in the more urban areas, such as Manhattan, Junction City, and Emporia. Housing affordability is also more an issue around the Manhattan Metropolitan Statistical Area than in the less populous counties in the region.

Goals

- **Downtowns:** Revitalize historic downtown and “Main Streets.”
- **Housing:** Increase housing options and flexibility to meet changing housing needs.
- **Communities:** Plan for infrastructure and development that strengthens existing communities and improves the appearance and functionality of the built environment.
- **Services:** Increase local access to vital government, retail, and recreation services in the Flint Hills.

Toolbox

1. **Revitalize Historic Downtowns**

This tool supports revitalizing historic downtown through a variety of options that aim to organize communities around identifying physical

investments and revitalization initiatives that can improve a downtown and make it more attractive for tourism, more viable for businesses, and a more vibrant community center.

2. **Use Incentives to Finance Redevelopment**

Communities that expect to grow and increase the value of their real estate should consider using incentive programs to jump-start investment. There are a number of incentive programs based on the existing fabric of the community and the outcomes desired.

3. **Conduct Comprehensive Planning**

Comprehensive Plans document a vision and goals for a municipality and translate that vision into a plan for infrastructure improvements and land use plans. Topics covered in a comprehensive plan may include land use, transportation, utilities, housing, recreational needs, public facilities and services, and natural resources. Comprehensive Plans provide direction and can provide a basis for changing ordinances through the legislative process.

4. **Align Housing Stock with Housing Need**

A Housing Needs Assessment collects and analyzes housing information to determine the need for affordable housing in a community. Issues include rental housing, affordable homeownership, senior housing, special needs housing, blight, foreclosure, and seasonal housing. The needs assessment identifies gaps in the current housing stock where certain demographics may have a hard time finding appropriate housing, and acts as a jumping off point to develop strategies to address these needs. The assessment may also provide a framework for evaluating development proposals to see if they address these needs.

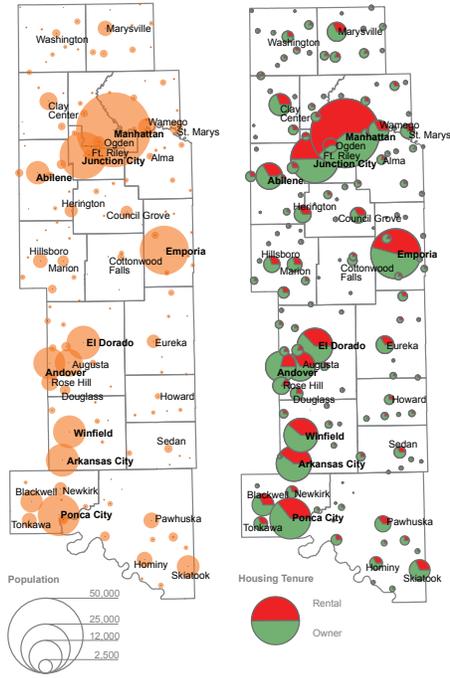
5. **Use Zoning, Ordinances, and Plan Review Process to Direct Development**

Zoning, ordinances, and a county development review process can provide options for Flint Hills communities that want to prevent inappropriate development from encroaching on ranch land. The review process can provide county staff and elected officials with a uniform and objective rating of how well a proposed development follows the county’s adopted policies and regulations and helps inform decisions related to development. For example, a county could publish a set of criteria that assigns a point value for how well a proposed development aligns with adopted policies and goals such as building contiguous to existing towns and cities, ability of providing water and sewer infrastructure, and conserving valuable prairie.



Built Environment Factsheet

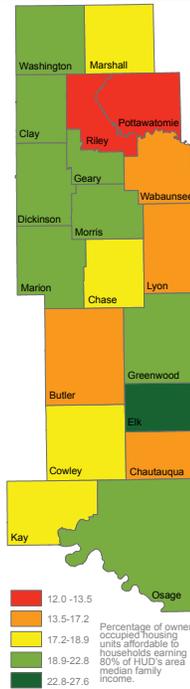
Population of Cities and Towns, Rental vs Owner-Occupied



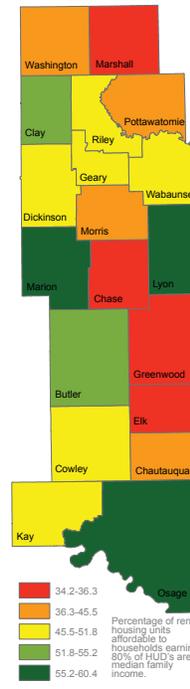
Urban Design: Classic "Main" Streets



Owner-Occupied Housing Affordability



Rental Housing Affordability



Riley and Pottawatomie Counties are the least affordable for those looking to purchase a home. However, Riley County does have a large amount of rental units that are more affordable. In general, the larger, growing communities have less affordable housing for those looking to buy, but more options in terms of rental units. Smaller, shrinking communities have more affordable owner-occupied housing because of weaker demand, and tend to have fewer and less affordable rental units.

Cities and towns in the Flint Hills share the distinctive pattern of a historic "Main" street in the center of town. These downtown districts add to the unique character of the Flint Hills and

Credits: U.S. Department of Commerce, Census Bureau

VII

SUMMARY OF ACTION

Over the past three years of this project the Flint Hills Regional Council and the Flint Hills Frontiers has been instrumental in developing a shared sense of regionalism in the seven-county service area surrounding Ft. Riley. The Flint Hills has added regional transportation planning through the Flint Hills Metropolitan Planning Organization, regional transit planning through the Flint Hills Regional Transit Administration, regional economic development planning through the Flint Hills Economic Development District, as well as the continued support of the Regional Development Partnership, a private sector gathering of the Geary, Pottawatomie and Riley County Chamber and economic interests. These regional collaborations will create the structure for the Frontiers work to have long lasting impact and will continue to develop the capacity for future growth.

Platform for Development – Website Plan

The success of any plan is measured on its adaptability. As an increasingly wide regional community uses the plan to inform their cooperative strategies, the plan will need to reflect progress and the latest thinking on specific tools, projects and policies. The format of Flint Hills Frontiers is primarily web-based, though each webpage is designed for easy printing, if the user so desires. This web-based interface allows the Flint Hills Regional Council to maintain and update the interface, and distribute notifications of update. This platform gives each and every regional user peace of mind that they have access to the most up-to-date plan information at any time, and an accountable party to respond to their updates as their communities test tools and find new ways to work together and share resources.

Dashboard

The metric dashboard shows a number of measurable outcomes in each issue area that may be compared within the region, to the state averages, and also to national averages. This feature is another dynamic component of the plan that is updated at least once a year by Flint Hills Regional Council and can be updated whenever regional partners make progress on a major issue together, such as transportation, communications, conservation, or invasives management, among many others. The dashboard will also provide the region with an opportunity to measure itself against other Sustainable Communities Initiative (SCI) regions to see if the Initiative is having lasting impact on these regional efforts.

Reporting progress that is comparable over time not only shows that the hard work of the region is paying off, but it also show the interconnectedness of the many strategies underway, and provides up-to-date data for all partners to use in reporting the value of their work and leveraging this value for additional support and funding. The SCI commitment is to build transparency into the planning process and identify common goals. Metrics provide the region a benchmark for data driven decisions and support for policy development.

Assets and Partnerships

While the creation of a regional plan gives a broad framework for regional consensus on goals and best practices, the Flint Hills Regional Council has also initiated detailed studies and convened regional partners on a number of specific topics including the Fair Housing and Equity Assessment, and Comprehensive Economic Development Strategy described below. With each study and each expert consultant, the assets and partnerships that inform the growth and health of the region expand; the trust





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and cooperative capacity of the region also grows through having up-to-date information and reliable analysis to inform local decision-making and attract new investors regionally.

Housing Report

The Fair Housing and Equity Assessment/Regional Analysis of Impediments (FHEA/RAI) is a required deliverable of the Sustainable Communities Planning grant. It provides an opportunity for diverse stakeholders in the greater Manhattan Kansas area to develop a shared picture of the housing, infrastructure, and economic dynamics that enhance or limit opportunity, and to develop forward-looking strategies and partnerships that can address some of the region's greatest challenges. A candid and broadly shared assessment of residential opportunity, Municipalities, and regional entities can identify objectives and priorities for future investments to enhance equity and access to opportunity and address the needs of communities facing the greatest challenges.

The FHEA/RAI is both regional and local in scope, requires engagement, and considers issues of fair housing in a broader framework. The resulting FHEA/RAI can be used for communities to challenge existing impediments to fair housing at the local level; for developing partnerships across multiple sectors and issue areas to create a shared understanding of equity and opportunity; and to help local policymakers make informed and targeted decisions about policy and investment to advance fair housing opportunity throughout the region.

Comprehensive Economic Development Strategy (CEDS Report)

The Economic Development District includes Chase, Geary, Lyon, Morris, Pottawatomie, Riley and Wabaunsee Counties. This is a complimentary study to the Economy and Opportunity study and the tools in the Flint Hills Frontiers that take a closer look at the region's economic health and drivers. The analysis identified new industry opportunities for the region that connect existing strengths while diversifying the economy from current drivers, such as ranching, education, and military. The economic action plan in this report has identified strengths and opportunities, including increasing tourism, positioning the region as a retirement destination, expanding manufacturing, and building on our base as a high-tech agriculture cluster.

Plan Library

The creation of a plan library allows for all regional partners to easily access the most recent comprehensive, strategic and infrastructure plans that counties, municipalities, and organizations across the Flint Hills are adopting, thereby promoting cooperation on and consolidation of comprehensive planning processes where possible.

GIS Framework

In many rural communities, GIS data is in its early stages or non-existent therefore creating inconsistencies in the level of detail that analysis and measurement can occur throughout the region. Development of the GIS Framework with Urban Ontogeny (formerly LEAMGroup, Champaign-Urbana, IL) will allow members of the Regional Council to access to a communal library of data layers for use in mapping and analyzing patterns of development, infrastructure, and participation among many other attributes.



Projects Moving Forward





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The Flint Hills Regional Council has been trained in the The Strategic Doing methodology of creating accountable networks (in partnership with Kansas State University’s Advanced Manufacturing Institute, Kansas Association of Regional Development Organizations (KARDO) and Purdue Center for Regional Development), and is now training new trainers throughout the region. The Strategic Doing process leverages the power of networks to answer the two major questions of development - “Where are we going?” and “How will we get there?” - through a four-phase approach that moves communities to a pathway project that develops along a disciplined path of “What could we do?”, “What should we do?”, to “What will we do?” in a measured and accountable 30-day timeframe. The network and habit that this process creates helps diverse partnerships to form based on fundamental principles of common interest, common resources, efficiency, and trust.

Emporia and Clay County have taken advantage of the USDA funded Capacity Building program to host Strategic Doing workshops in their areas that address economic changes and strategies at a community scale. This Capacity Building project will inform the implementation process of Flint Hills Frontiers.

Next Steps

The Flint Hills Regional Council is beginning a new service delivery model that will allow them to provide regional planning and support services to all of their member communities while using the power of networks and fellow KARDO partners to assist communities across the region and Kansas. This could range from the research, analysis, and public process necessary for communities to implement specific tools such as development guidelines, to convening region-wide partners in creating telecommunications networks. As projects, programs and resources coalesce, the Regional Council can adapt to fill the expertise needed.

Strategic Doing

During the planning process, it became evident that the diversity of stakeholders and interests, as well as the sheer size of the region made developing a single “plan” unproductive. Instead of a document that lays out a specific course of action, this document is meant to create a framework and toolbox with all of the region’s resources ready to be accessed for future implementation efforts.

Designing and implementing regional development strategies poses serious challenges. Part of the problem may be that the traditional approach to strategy, a linear process of strategic planning, is not well suited to the task. Strategic doing explores a new approach to strategy designed for the open, loosely connected networks that characterize a regional economy and emphasizes transparency, agility, and experimentation.

Building Networks with Accountability

On November 5, 2014, the Flint Hills Regional Council led a Strategic Doing work session with the Flint Hills Working Group at the Discovery Center in Manhattan. Participants included representatives of the Kaw and Osage Nations, Emporia State University, Fort Riley, The Nature Conservancy, Kansas Department of Parks, Wildlife and Tourism, Kansas Office of USDA Rural Development, Tri-County Telecom, the Kansas Livestock Association, City of Manhattan Planning Department, and Pottawatomie County Economic Development Corporation among others.



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The Flint Hills Regional Council introduced the Strategic Doing process and gave a brief presentation on the regional priority strategies and the range of tools developed to advance these strategies that have the highest potential impact for the region. Small, diverse groups formed to focus on projects that they have the interest and skills to move forward together. One group comprised of a county economic development corporation, representatives of the Kaw and Osage Nations, a Fort Riley labor analyst, the director of the Nature Conservancy, and a planner from Manhattan formed to discuss environmental and education projects. The group had interest in pursuing water quality projects as well as projects that increase quality of life for our youth to stay in the region. The group began by discussing assets (both tangible and intangible) that each person or organization is willing to share with this new network to move projects forward. The next question the group asked and answered was “What could we do together?” Through exploring how to connect their assets in a new network, project ideas became more concrete and refined. The third step was to answer “What should we do together?” This part of the Strategic Doing process defines outcomes and measurable success for the identified opportunities. Finally the group worked through the question, “What will we do together?” and created a short-term pathway with milestones to achieve measurable outcomes on the project opportunity and an action plan for the next 60 days.

Throughout this process, this skilled group had the connections and knowledge to move in either of their priority directions, however there was greater momentum on their shared assets to study regional education initiatives to better prepare our youth for a happy and productive future in the Flint Hills. The action steps included a workforce study, and encouraging regional high school participation in the Work Keys program of career pathway identification, analysis of economic trends and job opportunities, and understanding how environmental education can best fit into K-12 curriculum and career development paths of our Flint Hills youth. The group planned their next two meetings and assigned “homework” before parting ways. This process embeds both accountability and measurable value into network-building, and creates a pathway for wider participation in collaborative regional projects.

Conclusion

The Flint Hills region must continue building, weaving, and maintaining its networks into the future. Where the tallgrass prairie builds resilience through a vast network of rhizomatic shoots, the Frontiers project has been, and will continue to be, a process of seeking new connections and developing new resources. While this plan is a summary of work completed to date, as well as a plan for the short and long-term future, the Flint Hills Regional Council will continue championing the goals, facilitating a community conversation about the issues, and maintaining the Flint Hills Frontiers project website (www.flinthillsfrontiers.org), which will continue on as a living document of the work being conducted by stakeholders across the region.





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