

**From:** Barbara Clark, Maggie's Farm [mailto:maggiesfarm@sbcglobal.net]

**Sent:** Monday, August 23, 2010 8:59 AM

**To:** Chuck Blaser; Lisa Harris; Richard Hird; Charlie Dominguez; Kenzie Singleton; Stan Rasmussen; Bruce Liese; Brad Finkeldei; Hugh Carter; Lara Adams Burger

**Cc:** Amy Miller

**Subject:** Chapter 16 - Environment

Dear Commissioners;

I would like to make one request for an addition under Goals and Policies for Chapter 16 - Environment.

It would be within:

**Policy 2.7      Encourage the protection of High Quality  
Agricultural Land in Douglas County for current  
and future agricultural use.**

**d. Inventory Capability Class I and II soils acreage. Track loss of  
these soils to urbanization.**

Thank you all for considering this request.

I would respectfully encourage you to support Chapter 16 - Environment with this policy addition.

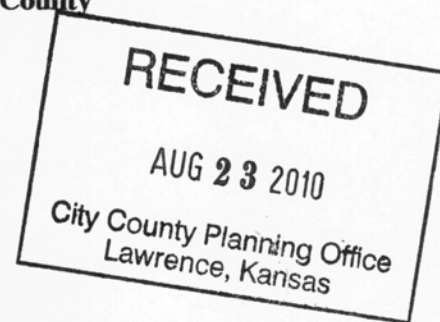
Sincerely,  
Barbara Clark

*"The history of every nation is eventually written in the way in which it cares for its soil." Franklin Roosevelt*

Maggie's Farm  
2050 E. 1550 Road  
Lawrence, KS 66044

League of Women Voters of Lawrence-Douglas County  
P.O. Box 1072, Lawrence, Kansas 66044

August 22, 2010



Mr. Charles Blaser, Chairman  
Members  
Lawrence-Douglas County Planning Commission  
City Hall  
Lawrence, Kansas 66044

RE: ITEM NO. 4: COMPREHENSIVE PLAN AMENDMENT; H2020 CH 16, ENVIRONMENT

Dear Chairman Blaser and Planning Commissioners:

Attached is a copy of our comments regarding the current draft of Horizon 2020, Chapter 16, Environment.

We ask that you consider the following suggestions:

- The term "rural development" should be better defined so as not to confuse it with non-agricultural residential expansion. By "rural development" we hope you mean agricultural and related development.
- We ask that the "agricultural soils" to be protected should include more than just the narrow types "Class 1 and 2 Soils." If you don't attempt to support the farming activities on other soils, this narrow definition could work against supporting agriculture and agricultural development in our Rural Area. (Please see attached exhibits.)
- Steep slopes should be protected from most development.
- Greenhouse gases contribute to global warming.
- Wherever possible existing urban forests should be preserved.
- The term "healthy" often is intended to mean "healthful" (for humans, that is). We believe that is what you mean.

We have learned from experience that apparently minor wording changes in our Codes can lead to unintended consequences. We hope that you will accept our suggested changes in this version of the Chapter 16 addition to *Horizon 2020*.

Thank you.

Sincerely yours,

Milton Scott  
Vice President

*Alan Black*

Alan Black, Chairman  
Land Use Committee

*Attachments*

Comments have been annotated onto this draft text from the Land Use Committee, League of Women Voters of Lawrence/Douglas County. Annotated pages are noted below and have been extracted from the Draft Text.

## **Environment**

*Draft – August 2010*

*Language removed from the April 2010 Draft is noted in ~~striketrough~~ and language added is in **green**.*

Annotated comments are on the following pages:  
16-2; 16-16; 16-20; 16-24; 16-25; 16-27; 16-32; 16-38.

industrial development and be used for open space preservation. In addition, the City of Lawrence adopted a Land Development Code in 2006 which addresses some recommendations of this chapter, including standards for impervious surface coverage, open space requirements, and landscaping. The City and Douglas County also have recently revised the subdivision regulations which include provisions for land divisions which contain environmentally sensitive features. The City of Lawrence also has multiple efforts currently underway with similar goals as presented in this chapter, including work by the Sustainability Advisory Board, the Mayor's Climate Protection Task Force, and the Peak Oil Task Force. These advisory boards review issues and make recommendations to the Lawrence City Commission. Douglas County has recently established a Local Food Policy Council to work with stakeholders in creating and maintaining a healthy local food system. This chapter takes into account recommendations that have been made by all advisory boards related to topics discussed. It is important that work on these programs be ongoing in order to further the goals of this chapter. Also, the City and County are committing to internalizing sustainability principles within their operations in order to take the lead in creating a sustainable and livable community.

A variety of management practices are recommended in this chapter, including education of the public and government officials, development of incentives and regulations, and incorporation of green infrastructure strategies. "Green infrastructure strategies actively seek to understand, leverage, and value the different ecological, social, and economic functions provided by natural systems in order to guide more efficient and sustainable land use and development patterns as well as protect ecosystems."<sup>1</sup>

The recommendations in this chapter focus on integrating the natural and built environments in order to create a healthy, sustainable community for current and future generations to live, work and play. The City of Lawrence and Douglas County are committed to protecting and enhancing the environment while meeting other community, economic development, housing and infrastructure goals.

## Strategies:

Strategies provide a direction or approach to accomplish specific goals or policies of this chapter:

- Identify and protect important environmental features in a manner that also:
  - Accommodates planned urban and rural growth,\*

<sup>1</sup> *Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21<sup>st</sup> Century, May 1999 (The President's Council on Sustainable Development.)*

*in controlling sedimentation, aiding groundwater recharge, and absorbing stormwater runoff.*

**Endangered Species and Wildlife Habitats:** *The protection of critical habitats is a principal means of protecting rare and endangered species and also serves to protect other species that use the same habitat. Because development has resulted in fragmentation of wildlife habitats, corridors connecting them should be maintained. The Kansas Wildlife Conservation Plan<sup>2</sup> includes protection measures for rare and endangered species and is geared toward practices and policies that would help keep common species from becoming endangered.*

**2) Agricultural soils.\*** *High Quality Agricultural Land is recognized as having exceptional quality and fertility, and in Douglas County is generally described as **having** Capability Class (non-irrigated) 1 and 2 soils as defined by the National Resources Conservation Service. This High Quality Agricultural Land is a finite resource that is important to the regional economy. This land requires less intervention to produce high yields of crops with high nutrition and should be protected, preferably for food production.*

#### **Goals and Policies:**

**Goal 2:** Properly manage all land resources, including soils, woodlands, native prairies, wildlife habitats, viewsheds and open spaces, to maintain the functions they provide, ensure the sustainability of the resources, and improve the environmental quality of the City of Lawrence and unincorporated Douglas County.

**Policy 2.1** ~~Appropriately develop land to~~ **Development should maintain the natural benefits of existing topography. Development on steep slopes (above 15%) shall **should** be done in a manner that encourages the use of the existing topography with minimal grading to minimize adverse effects.**

**Policy 2.2** Preserve and sustain woodlands within Douglas County.

\*See attached file at end of these pages: ks\_soil[1]Harney-Ks State Soil.

<sup>2</sup> <http://www.kdwp.state.ks.us/news/Other-Services/Wildlife-Conservation-Plan>

**Policy 2.7      Encourage the protection of High Quality Agricultural Land in Douglas County for current ~~or~~ and future agricultural use.**

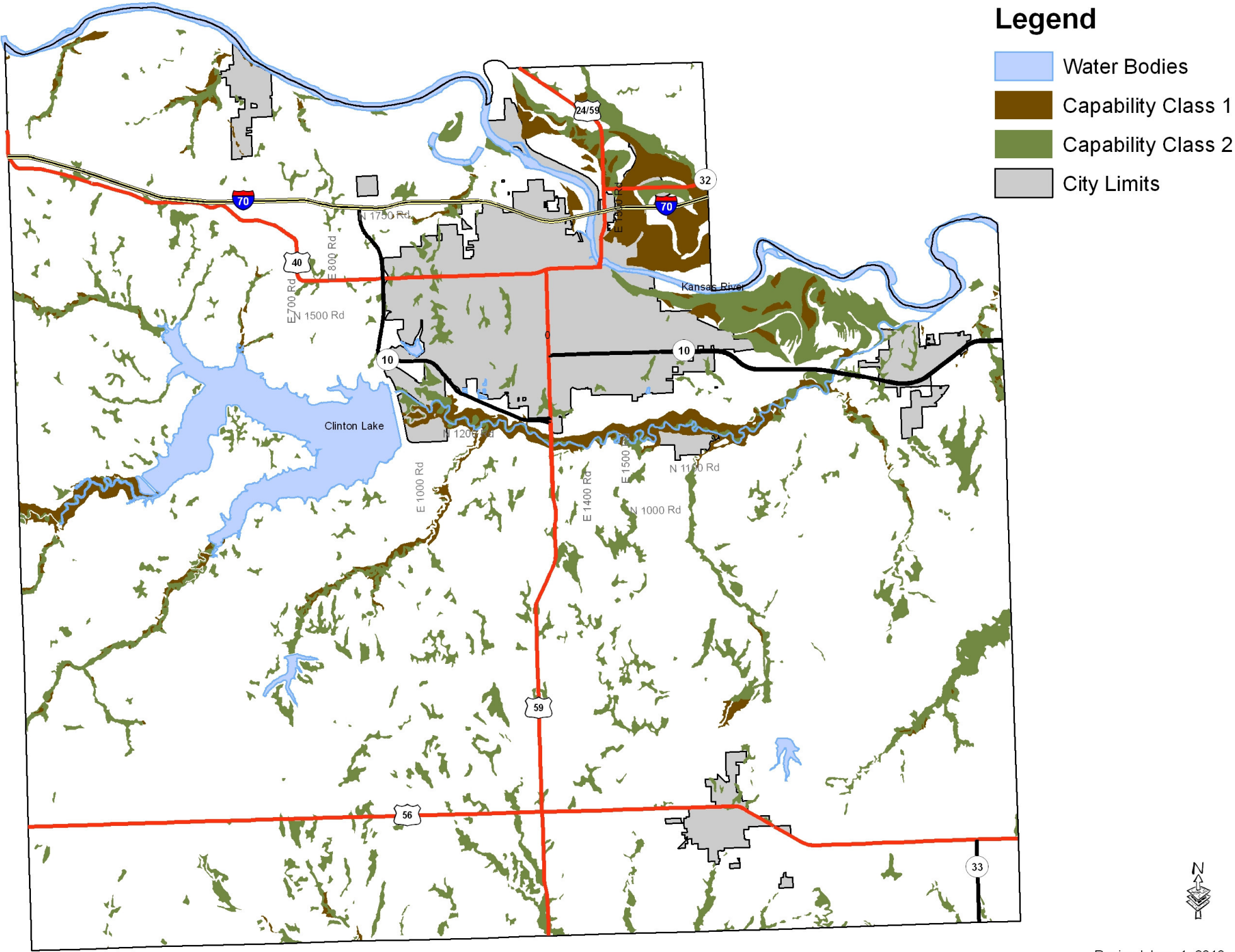
- a. The protection of High Quality Agricultural Land ~~should~~ **shall** be used as a key assumption in the sector planning process.
- b. Establish tools to protect High Quality Agricultural Land for farming and make its protection economically feasible for the land owner, such as an agricultural easement program, development incentives that encourage the protection of this resource, public/private partnerships, or other funding mechanisms.
- c. Encourage **and develop policies that support** ~~and support efforts that advance effective economic systems related to agri- and eco-tourism,~~ **as well as a sustainable local/regional food system.**

Please see previous comments on page 16-16. "High quality" is too limiting to define important farmland and agricultural land. All of the "high quality" shown on the map is in floodplain and former floodplain areas. Upland agricultural land must also be protected. Please see map of "prime agricultural land obtained in 1999 from the NRCS in Salina.



Note: The implication of this map is that only those areas marked in dark green and brown are worth saving for agricultural use or worth saving as agricultural land. This is a misleading concept. When the LWV made its study of agricultural land use in the county almost 80% was being used for agricultural use and a map we received from the SCS in Salina indicated a far greater amount of land was designated as "prime" and considered valuable for agricultural use. Please see the enclosed map at the end of this annotated copy of Draft Chapter 16.

Map 16-4  
High Quality  
Agricultural Land



Revised June 1, 2010

## AIR RESOURCES AND MANAGEMENT

This section focuses on air quality, which is impacted by the amounts of pollutants present, such as sulfur dioxide, carbon monoxide, nitrogen dioxide, ozone, radon, particulate matter, and lead. Air pollution has a profound impact on the environment and can lead to water contamination, soil contamination and impact the health of humans, animals and plants.

Excess greenhouse gases, such as carbon dioxide, methane, nitrous oxide, and fluorinated gases, are a form of air pollution that can ~~may lead to~~ global warming. The *Climate Protection Plan: Climate Protection Task Force Report* to the Lawrence City Commission provides recommendations for the reduction of greenhouse gas emissions in ~~the community~~. Lawrence, as well as improving the ~~global climate~~.

contribute

### Summary of Issues:

- 1) **Air quality.** *The quality of air impacts human, plant and animal health.*
  - a. **Outdoor air pollution.** *Minimizing pollutants is critical to maintaining outdoor air quality. Outdoor air pollution can lead to negative health impacts.*
  - b. **Excessive greenhouse gases.** *Reducing greenhouse gases is necessary to limit their negative impacts on the climate.*
  - c. **Indoor air pollution.** *Pollutants, such as radon, second-hand smoke, carbon monoxide and VOCs (volatile organic compounds) affect indoor air quality and have a negative impact on human health.*

### Goals and Policies:

**Goal 3: Improve indoor and outdoor air quality in order to mitigate impacts to human, animal and plant life in Douglas County.**

**Policy 3.1 Improve air quality through reduction in emissions from vehicle exhaust by reducing the number of vehicle miles traveled.**

- a. Recommend land use and transportation design standards that encourage the use of alternative forms of transportation (other than private vehicle), encourage development in areas that are served or could be served by transit facilities, and provide efficient connections from one mode of transportation to another.



- b. Encourage education and outreach programs which explain the need for improvement and provide information on steps individuals, businesses, institutions, the City and the County can take to reduce their contribution to emissions in Douglas County.

**Policy 3.4      Develop Land Use Planning regulations and incentives to reduce greenhouse gas emissions to acceptable levels.**

- a. Develop and implement policies to inventory<sup>,preserve,</sup> and increase the amount of urban forest that will help reduce the amount of CO2 in the air.
- b. Develop a Douglas County inventory of greenhouse gas emissions using the guidance materials available from the EPA and use this inventory to monitor success of implemented programs.
- c. Develop a program to accommodate and encourage the increased use of bicycling as a form of transportation. The program should include the following features:
  - c.1 Bicycle/pedestrian level of service standards and guidelines for new developments.
  - c.2 Incentives for provision of additional bicycle parking at existing facilities.
  - c.3 Plans for the retrofit of existing streets where bicycle facilities are needed.
  - c.4 The implementation of a comprehensive network of bicycle facilities identified in the bikeway system map.
- d. Encourage and incentivize energy efficient building design.
- e. Encourage and incentivize transit and forms of non-motorized transportation.
- f. City and County governments should serve as a model for the community by setting goals for reduction of greenhouse gas emissions from construction and operation of government buildings.

**Policy 3.5      Improve indoor air quality to maintain and improve the health of our community.**

## HUMAN AND BUILT ENVIRONMENT

*"Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs. Sustainable development integrates the three pillars of environmental protection, economic development, and social development in decision making. It is not the tradeoff between these pillars, but the synergy between them."*<sup>3</sup>

The majority of this chapter discusses protection of certain environmental and natural features in order to preserve them for the future. This final section of the chapter takes those ideas a step further by identifying how those environmental protection efforts impact the human and built environment to create a sustainable and livable community.

### Summary of Issues:

- 1) Sustainability.** *Creating a sustainable community protects and preserves the environment, natural and built, for future generations to enjoy. This can include minimizing negative impacts from development on the environment and promoting sustainable building and land use practices.*
- 2) Healthy and active lifestyles.** *How the physical environment of Douglas County is built has a direct impact on the lifestyles and health of its residents. Making cities and neighborhoods pedestrian and bicycle friendly, creating a system of interconnecting greenspaces, reducing air and water pollution, creating appropriately designed transportation systems, and providing recreation spaces help enhance the health of our citizens. As an example, the Safe Routes to Schools program, sponsored by the State of Kansas Department of Transportation, provides safe zones which make it safer for children to bike or walk to schools.*
- 3) Local/Regional Food.** *Local and regional food programs provide health ~~benefits by encouraging healthy~~ diets made up of adequate amounts of locally grown fresh food and may produce air quality benefits by reducing fossil fuel emissions associated with food-related transportation. In Douglas County, there are approximately 98,000 harvested acres of active farmland. A report, "Eastern Kaw River Region's Local Farm and Food Economy", studied seven counties in eastern Kansas and found that the region loses \$2.1 billion of potential revenue by buying food supplies from*

healthful

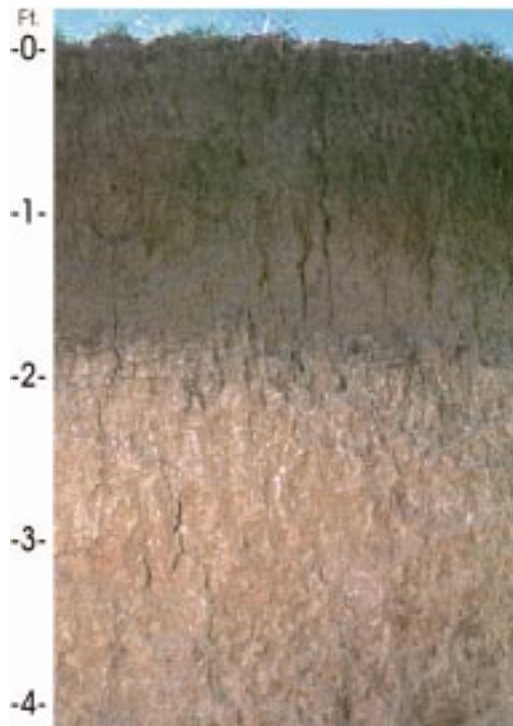
<sup>3</sup> A portion of this definition is taken from Brundtland Report: World Commission on Environment and Development (WCED). *Our common future*. Oxford: Oxford University Press, 1987 p. 43.

Please also define prime agricultural land and include it as worthy of protection.

	<i>activities. Other greenhouse gases (e.g., fluorinated gases) are created and emitted solely through human activities. The principal greenhouse gases that enter the atmosphere because of human activities are: Carbon Dioxide (CO<sub>2</sub>), Methane (CH<sub>4</sub>), Nitrous Oxide (N<sub>2</sub>O), and Fluorinated Gases such as hydrofluorocarbons or perfluorocarbons which are usually emitted from a variety of industrial processes.</i>
<b>Groundwater Recharge</b>	<i>Water that infiltrates the land surface and percolates downward to the underlying groundwater system.</i>
<b>Health Impact Assessment</b>	<i>A combination of procedures, methods, and tools by which a policy, program, or project may be judged as to its potential effects on the health of a population, and the distribution of those effects within the population<sup>5</sup></i>
<b>High Quality Agricultural Land</b>	<i>Land with good soil quality that is rated as Capability Class (non-irrigated) 1 and 2 as defined by the National Resources Conservation Service.</i>
<b>Key Habitat</b>	<i>Habitat for wildlife that are not listed as endangered or threatened, but that have declined over the last 50 years to the point that they are in danger of being listed as such.</i>
<b>Level of service standards</b>	<i>A qualitative rating of the effectiveness of a highway or highway facility in serving traffic, in terms of operating conditions (speed, travel time, comfort, convenience, traffic interruptions, freedom to maneuver). The Highway Capacity Manual identifies operating conditions ranging from A, for best operations (low volume, high speed) to F, for worst conditions.</i>
<b>Light Pollution</b>	<i>The adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.</i>
<b>Light Trespass</b>	<i>When light is directed outside of the given property.</i>
<b>Native Prairies</b>	<i>A prairie is an ecosystem native to central North America, with fire as its primary periodic disturbance. Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties are 'native prairies'. Native prairies have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies.)</i>
<b>Open Space Area</b>	<i>An area which provide visual &amp; psychological relief from the built environment; public access via trails &amp; walkways</i>

<sup>5</sup> <http://www.cdc.gov/healthyplaces/hia.htm>

# HARNEY -- KANSAS STATE SOIL



## Harney Soil Profile

Surface layer: dark grayish brown silt loam

Subsurface layer: dark grayish brown silty clay loam

Subsoil - upper: grayish brown silty clay loam

Subsoil - middle: light brownish gray, calcarous silty clay loam

Subsoil - lower: light gray, calcarous silt loam

The Harney series was adopted as the Official State Soil of Kansas on April 12, 1990, when Governor Mike Hyden signed Senate Bill 96. The name "Harney" (meaning people) is derived from "harahey," an ancient Wichita Indian term for "Pawnee Indian," stemming from when Coronado journeyed across Kansas.

Harney soils have the ideal qualities of prairie soils. They are recognized as prime farmland and have excellent properties for producing food and fiber crops. These soils occur on about 4 million acres in west-central Kansas. Kansas is one of the top producers of wheat, grain sorghum, and silage in the nation because of Harney and other productive soils.



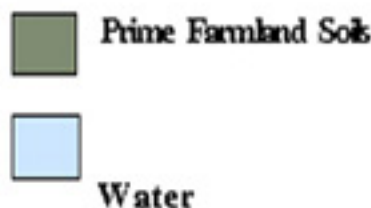
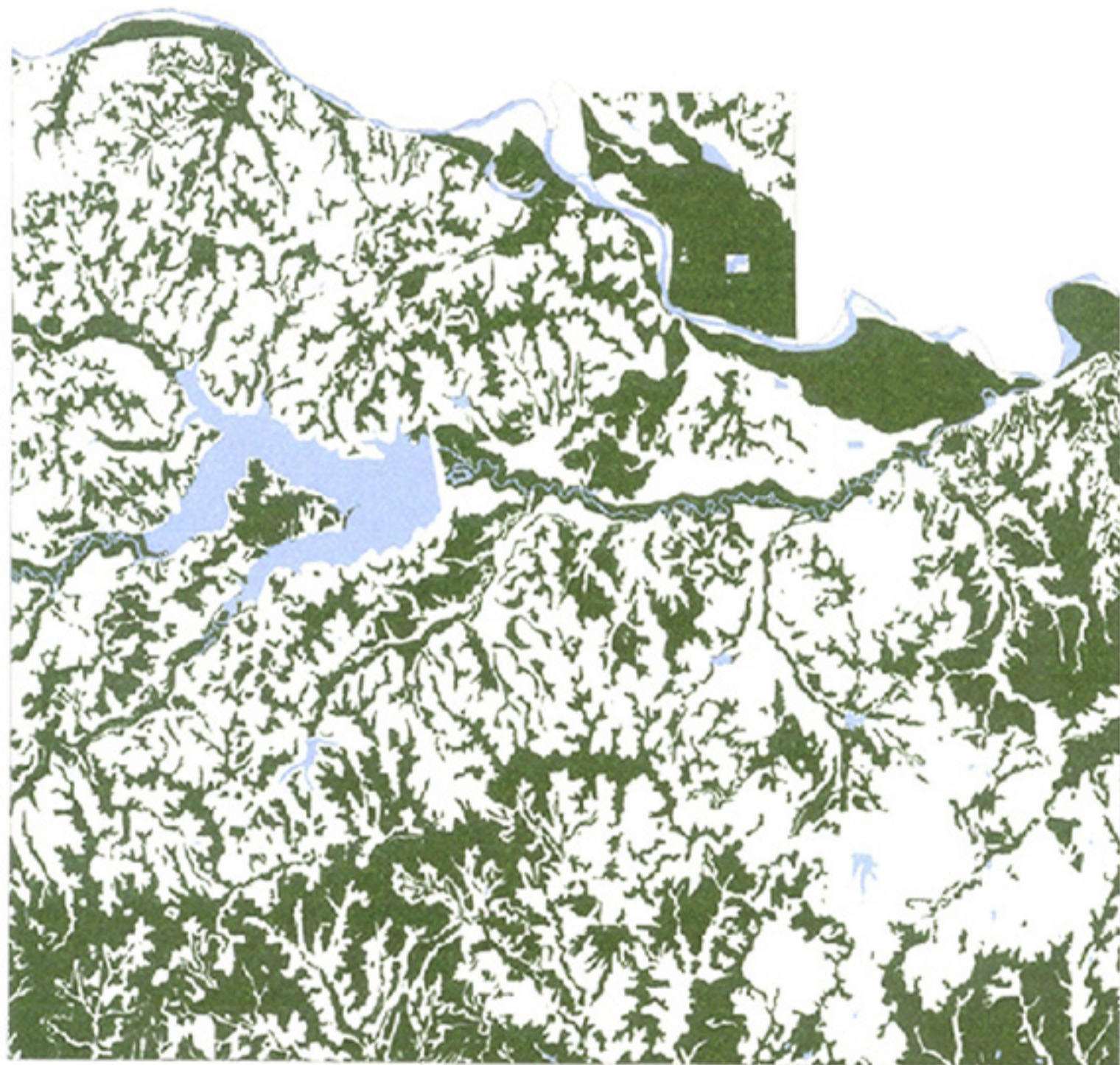
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# DOUGLAS COUNTY, KANSAS

1999 GIS Map from USDA-NRCS  
Soil Conservation Service



To: The Lawrence-Douglas County Planning Commission

Re: Horizon 2020 Environmental Chapter, August, 2010 Draft

Date: August 23, 2010

Dear Commissioners,

I am writing to request that you approve the Horizon 2020 Environmental Chapter, August, 2010 Draft.

The Chapter incorporates many forward-thinking, constructive guidelines for development policies that should protect and support a healthy environment for humans and wildlife in Douglas County.

I particularly applaud the guidelines that promote planning on the watershed level. This is the type of vision we need if we are to maintain our water quality and supply for the community, agriculture, industry and wildlife. It is also wonderful to see the emphasis on preserving productive farmland and developing ways to support and increase consumption of locally produced food. I'm also grateful for the stress placed in several parts of the document on connecting our open and green spaces so that wildlife can access resources needed for survival.

The Chapter shows understanding of the very important role of open space of various kinds in maintaining the mental and physical health of the community and in protecting our water supply through filtering of pollutants and groundwater recharge. I want to thank planners Amy Miller and Mary Miller for including in the August draft language suggested in April by our local WRAPS groups relating to the importance and understanding of the role played by riparian areas, stream corridors and prairies in maintaining water quality and controlling storm water runoff and flooding.

I hope that all stakeholders in the Lawrence community will become familiar with this document and use it to guide their development plans and dreams so that our beloved place on the earth will stay beautiful, productive and healthy for all the life that makes its home here.

With thanks to all who worked so hard on the Horizon 2020 Environmental Chapter,

Susan Iversen  
Member, Stakeholder Leadership Team  
Lower Kansas WRAPS



August 22, 2010

To: Lawrence/Douglas County Metropolitan Planning Commission:

Re: Chapter 16 ENVIRONMENT AUGUST 2010 DRAFT

For the most part, I believe that this chapter shows a great deal of forethought and promise that land-use planning will become much more sustainable upon full adoption and implementation of this chapter. However, there are a few key points that need correction:

Page 16-5 "Summary of Issues"

- 1) Water quality. The following sentence should be added at the end of the paragraph:  
***a. Minimizing soil erosion helps protect water supply reservoirs from premature siltation, thereby protecting water quantity as well.***

Reason: The Kansas Water Office has reported that nearly all reservoirs in the state are being silted in far in advance of the projections made at the time of construction of the impoundments.

Page 16-6 Goals and Policies:

Goal 1: Should read: Properly manage all water resources, including: drainage areas, surface water courses, wetlands, ***groundwater***, floodplains, and storm-water runoff, in order to protect natural habitats, mitigate hazards, and ensure water quality.

Reason: The type of geology in Douglas County does not lend itself to "subsurface waterways" which suggests that there are narrow bands of flowing water below the surface. This type of condition is generally found in areas of karst topography. In Douglas County everything below the water table is saturated over a wide area, not in narrow bands. The groundwater then flows slowly in the direction of the gradient toward the discharge areas: streams, rivers and surface water reservoirs.

**This change should be made throughout the document:**

Page 16-7 Policy 1.5 Protect ***ground*** water resources.

Page 16-8 1.5 d Provide education ..... and values of ***ground*** water resources .....

Page 16-39 GLOSSARY: Change sub-surface watercourses to ***Groundwater***

Page: 16-9: Policy 1.7 b

Change to: Develop strong erosion and sediment control policies on construction sites that include consistent and effective enforcement to ***eliminate or minimize sediment from reaching storm sewers or natural drainage areas.***

Page 16-25 AIR RESOURCES AND MANAGEMENT:

Should mercury be added to the list of pollutants sometimes present in the air? When present it does pose a serious health hazard.

Page 16-29 RESOURCE MANAGEMENT

It somehow seems incongruent to include timber as a resource for extraction, when a great deal of this document is devoted to explaining why Lawrence and Douglas County citizens should maintain or enhance our county and urban woodlands.

Page 16-31 WASTE MANAGEMENT

I realize that this might be considered somewhat frivolous; however, I'm going to present it any way. I'm appalled at the statistics on the millions of plastic bottle containers that are land filled on a monthly basis nationwide. [At the Container Recycling Institute's web site at the time of this writing, it showed that up to this time in 2010 there are more than 82,697,000,000 plastic bottles land filled, littered or incinerated.] There is so much misinformation about the quality of "bottled water" and if we paid the same amount for a gallon of gas for our vehicles, there would be a near revolution! I would love to see a policy address this issue:

***Policy 5.3 Investigate the feasibility of establishing a "bottle deposit" fee in Lawrence and Douglas County to enhance the actual recycling rate of plastic bottles.***

*Thank you for your attention and consideration to these suggestions. I appreciate your efforts on this important issue.*

*Sincerely,*

*Joyce A Wolf*

*1605 East 318 Road*

*Lecompton, KS 66050*

*785-887-6019*

**Memorandum:** Comments on Horizon 2020 Environmental Chapter, August 2010 Draft

**To:** Lawrence-Douglas County Planning Commission

**From:** City of Lawrence Sustainability Advisory Board

**Date:** August 11, 2010

Dear Planning Commissioners,

On behalf of the City of Lawrence Sustainability Advisory Board (SAB), we would like you to approve all of the latest language changes, edits, and additions to the Environmental Chapter of the Horizon 2020 document.

Also, we would like to acknowledge the hard work and continuing dedication of Amy Brown and Mary Miller in drafting this document.

Lastly, the SAB thanks the Commission for using some of the wording that our board proposed for this document.

Sincerely,

Sustainability Advisory Board