

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

March 4, 2011

RECEIVED

MAR 04 2011

CITY MANAGERS OFFICE
LAWRENCE, KS

Mayor Mike Amyx
Members of the Lawrence City Commission
Chairman Jim Flory
Members of the Douglas County Board of Commissioners

RE: Text Amendment to Horizon 2020, new Chapter 16 - Environment

Dear Mayor Amyx, Chairman Jim Flory and Commissioners:

Over a period of many months the Land Use Committee of the League of Women Voters of Lawrence-Douglas County has studied the development of this Text Amendment to Horizon 2020: Chapter 16, the Environment. We would like to express our appreciation for the effort, care, and expertise that has gone into the writing of this chapter. We sincerely hope that you will find this a valuable guide and will adopt it as it is written. Should you recommend any changes, we ask that such changes will only serve to strengthen, and not to weaken this chapter.

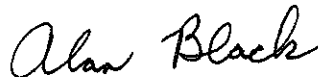
With this in mind, we respectfully submit the final comments that we made to the Planning Commission as they studied and adopted this important addition to Horizon 2020. If you should choose to make changes to the current Text Amendment, Chapter 16, we ask that you include our proposed modifications.

We thank the Planning Commission and Planning Staff for this invaluable addition to Horizon 2020.

Sincerely yours,



Milton Scott
Vice President

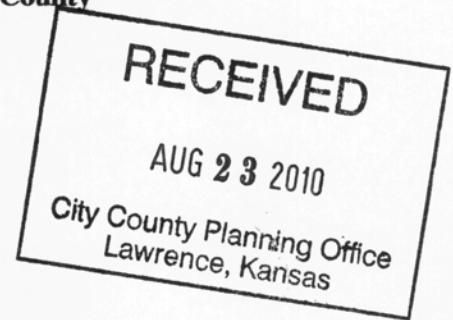


Alan Black, Chairman
Land Use Committee

Attachments

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."¹

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,^{*}

¹ *Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st 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 Plan² includes protection measures for rare and endangered species and is geared toward practices and policies that would help keep common species from becoming endangered.*

Please include the other soils that are listed as "prime agricultural soils." For example, the State Soil is an upland soil called "Harney." See footnote. Or, better, simply state "preserve existing agricultural land and land use."

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.

This is a step backwards. Development on steep slopes must be avoided.

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.

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

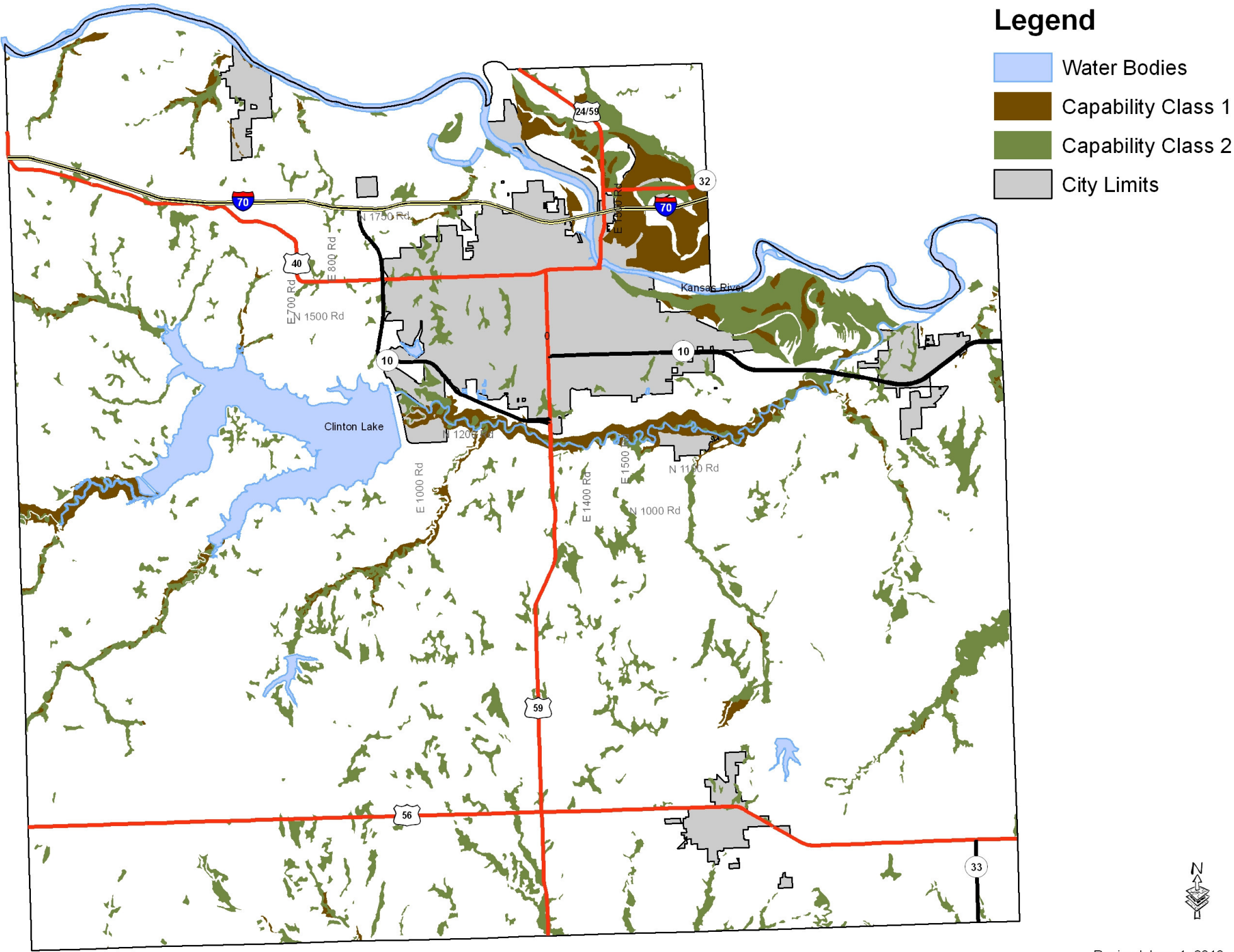
Policy 2.7 Encourage the protection of High Quality Agricultural Land in Douglas County for current ~~or~~ and future agricultural use.

- 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^{,preserve,} 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."*³

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

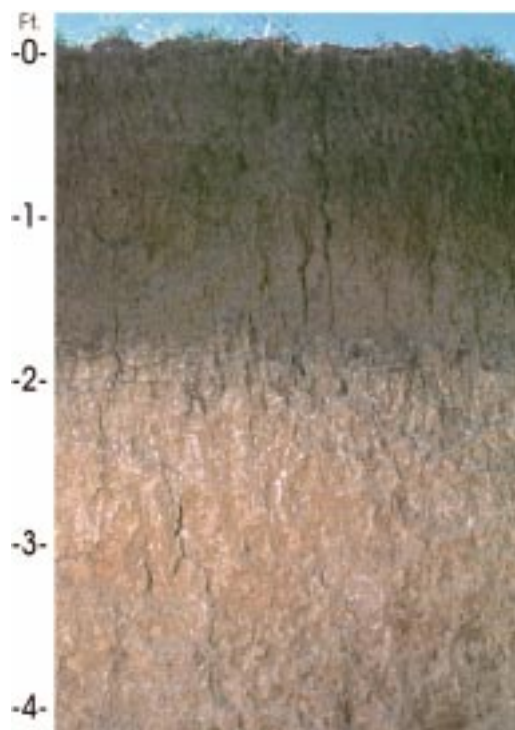
³ A portion of this definition is taken from Brundtland Report: World Commission on Environment and Development (WCED). *Our common future*. Oxford: Oxford University Press, 1987 p. 43.

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 (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), and Fluorinated Gases such as hydrofluorocarbons or perfluorocarbons which are usually emitted from a variety of industrial processes.</i>
Groundwater Recharge	<i>Water that infiltrates the land surface and percolates downward to the underlying groundwater system.</i>
Health Impact Assessment	<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 population⁵</i>
High Quality Agricultural Land	<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>
Key Habitat	<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>
Level of service standards	<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>
Light Pollution	<i>The adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.</i>
Light Trespass	<i>When light is directed outside of the given property.</i>
Native Prairies	<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>
Open Space Area	<i>An area which provide visual & psychological relief from the built environment; public access via trails & walkways</i>

⁵ <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.

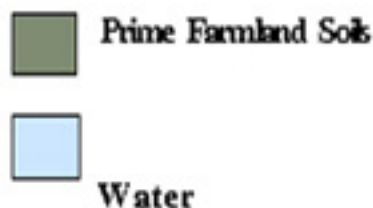
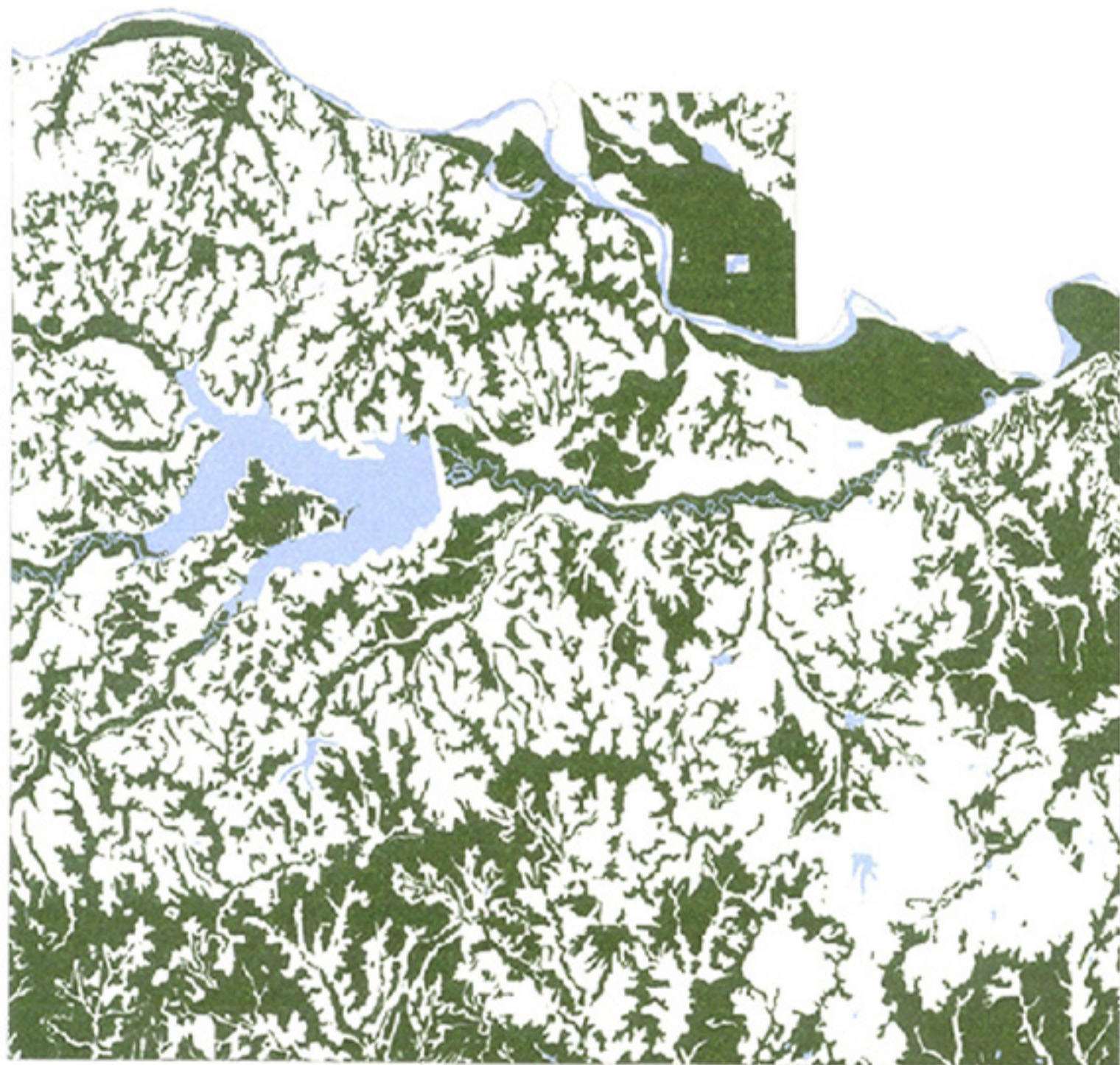


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DOUGLAS COUNTY, KANSAS

1999 GIS Map from USDA-NRCS
Soil Conservation Service



Bobbie Walthall

From: Barbara Clark, Maggie's Farm [maggiesfarm@sbcglobal.net]
Sent: Saturday, January 29, 2011 5:09 PM
To: Commissioner Amyx; Aron Cromwell; Lance Johnson; Commissioner; Commissioner; Commissioner Thellman; Commissioner Flory; Commission Gaughan
Cc: David L. Corliss; County Administrator Weinaug; Scott McCullough; Dan Warner; Bobbie Walthall; Jerry Jost
Subject: Fw: Class I and II Soils in the Potential Industrial Development Areas in Horizon 2020
Attachments: DouglascountyIndustrialDevelopmentAreasClassIAndIISoils.pdf

Dear Commissioners,

Citizens for Responsible Planning is forwarding the completed study we referenced in our previous letter dated 1/24/2011. Using the map 7-2 from Horizon 2020 - Chapter 7 titled *Potential Locations for Future Industrial and Employment Related Land Use* dated March 2008 we have completed USDA/NRCS Web Soil Survey maps for each of the eleven sites identified. A chart showing total acres of Capability Class I and II soils represented at each of these areas clearly shows the snowflake identified as "Airport" is comprised of 100% Class I and II soils. This is a extremely unique area. Midland Junction has the second largest area of acres represented by 43.4% Class I and II soils. The remaining identified future industrial sites have extremely minimal content or none at all of these Capability Class I and II soils.

Please take a moment to review this study. If we are guided by the language of Horizon 2020 our long-range comprehensive land use planning document this data seems worthy of consideration. "The preservation of high-quality agricultural land, which has been recognized as a finite resource that is important to the regional economy, is of important value to the community." (Horizon 2020 - Chapter 7). As this study shows we are not without other industrial development options where soils are not a consideration. We are however limited in the amount of these highly fertile soils we can preserve and pass on to future generations for agricultural use.

Once again, thank you for spending your time looking over this information.

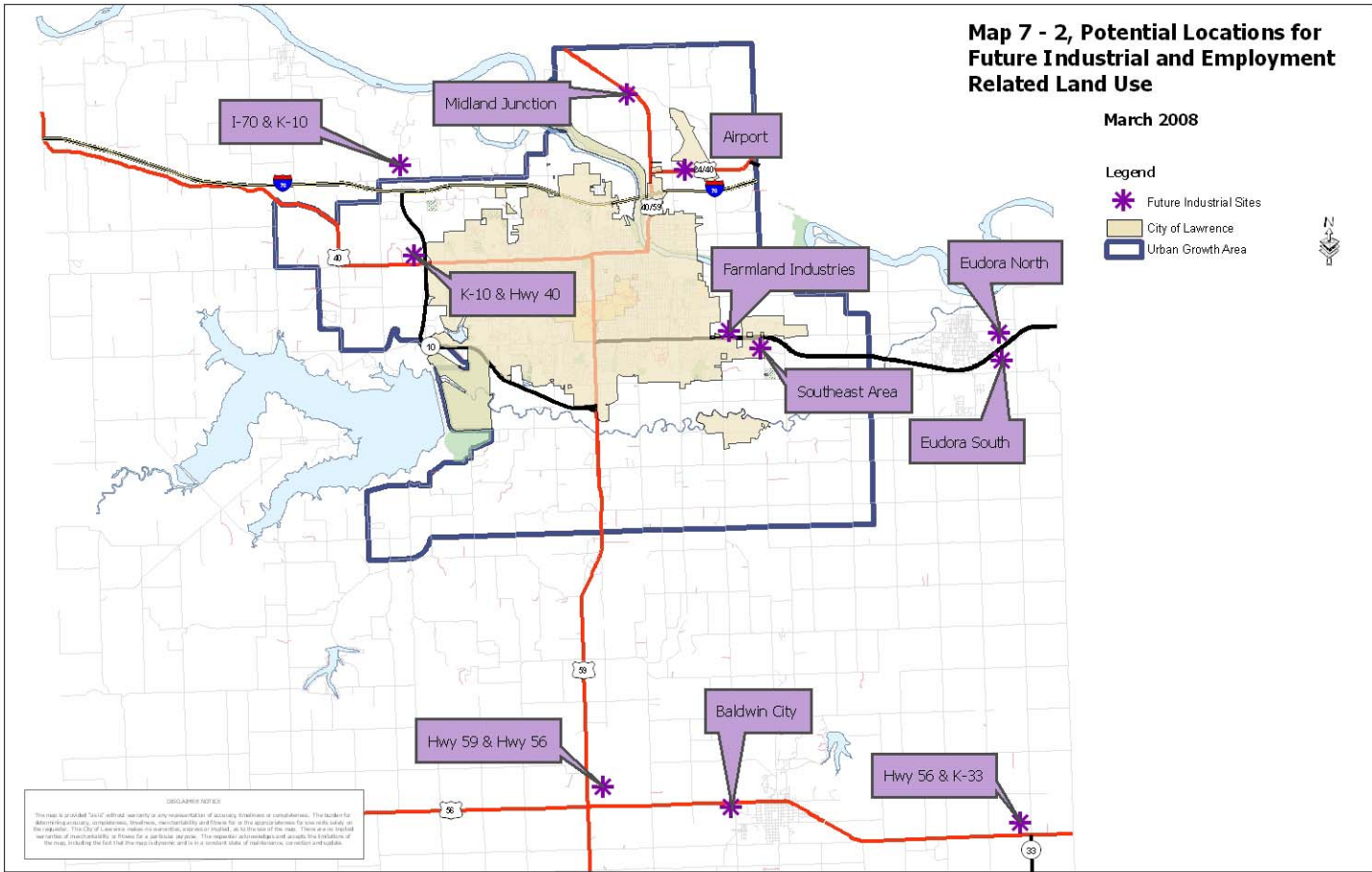
Respectfully submitted,
Barbara Clark
Jerry Jost
Citizens for Responsible Planning Steering Committee

Approximate Acreages Containing Class I and II Soils in the Potential Industrial Development Sites According to Horizon 2020					
Potential Industrial Development Sites According to Horizon 2020 (Pages 7-4 through 7-8)	Acres (Approximate)	Class I Soils (Approximate Acres)	Class II Soils (Approximate Acres)	Total Class I and II Soils (Approximate Acres)	% Soils that are Class I and II
Farmland Industries	509	12	7	19	3.7%
Southeast Area	173	0	21	21	12.1%
Airport	374	217	157	374	100.0%
I-70 and K-10	607	0	42	42	6.9%
K-10 and Highway 40	386	0	28	28	7.3%
Eudora North and Eudora South	845	8	4	12	1.4%
Baldwin City	648	0	0	0	0.0%
Highway 56 and Highway 59	656	0	36	36	5.5%
Midland Junction	652	69	214	283	43.4%
Highway 56 and K-33	719	0	0	0	0.0%
Total Acres (Approximate)	5569				

Map 7 - 2, Potential Locations for Future Industrial and Employment Related Land Use

March 2008

- Legend**
- Future Industrial Sites
 - City of Lawrence
 - Urban Growth Area



Nonirrigated Capability Class–Douglas County, Kansas
(Farmland Industries 275+ Acres)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:13,400 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7051	Kennebec silt loam, frequently flooded	5	21.4	4.2%
7090	Wabash silty clay loam, occasionally flooded	3	33.3	6.5%
7155	Kimo silty clay loam, rarely flooded	2	7.1	1.4%
7176	Rossville silt loam, very rarely flooded	1	12.3	2.4%
7280	Wabash silty clay, very rarely flooded	3	13.1	2.6%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	0.5	0.1%
7502	Pawnee clay loam, 3 to 6 percent slopes	3	177.9	35.0%
7503	Pawnee clay loam, 3 to 6 percent slopes, eroded	3	8.4	1.6%
7602	Sibleyville complex, 7 to 12 percent slopes	6	111.4	21.9%
7603	Sibleyville loam, 3 to 7 percent slopes	3	8.3	1.6%
7651	Vinland complex, 3 to 7 percent slopes	6	58.7	11.5%
8962	Woodson silt loam, 1 to 3 percent slopes	3	18.8	3.7%
9986	Miscellaneous water		37.8	7.4%
Totals for Area of Interest			509.0	100.0%

Description

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive landforming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations that show suitability and limitations of groups of soils for rangeland, for woodland, or for engineering purposes.

In the capability system, soils are generally grouped at three levels—capability class, subclass, and unit. Only class and subclass are included in this data set.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

Class 1 soils have few limitations that restrict their use.

Class 2 soils have moderate limitations that reduce the choice of plants or that require moderate conservation practices.

Class 3 soils have severe limitations that reduce the choice of plants or that require special conservation practices, or both.

Class 4 soils have very severe limitations that reduce the choice of plants or that require very careful management, or both.

Class 5 soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 6 soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

Class 7 soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

Class 8 soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

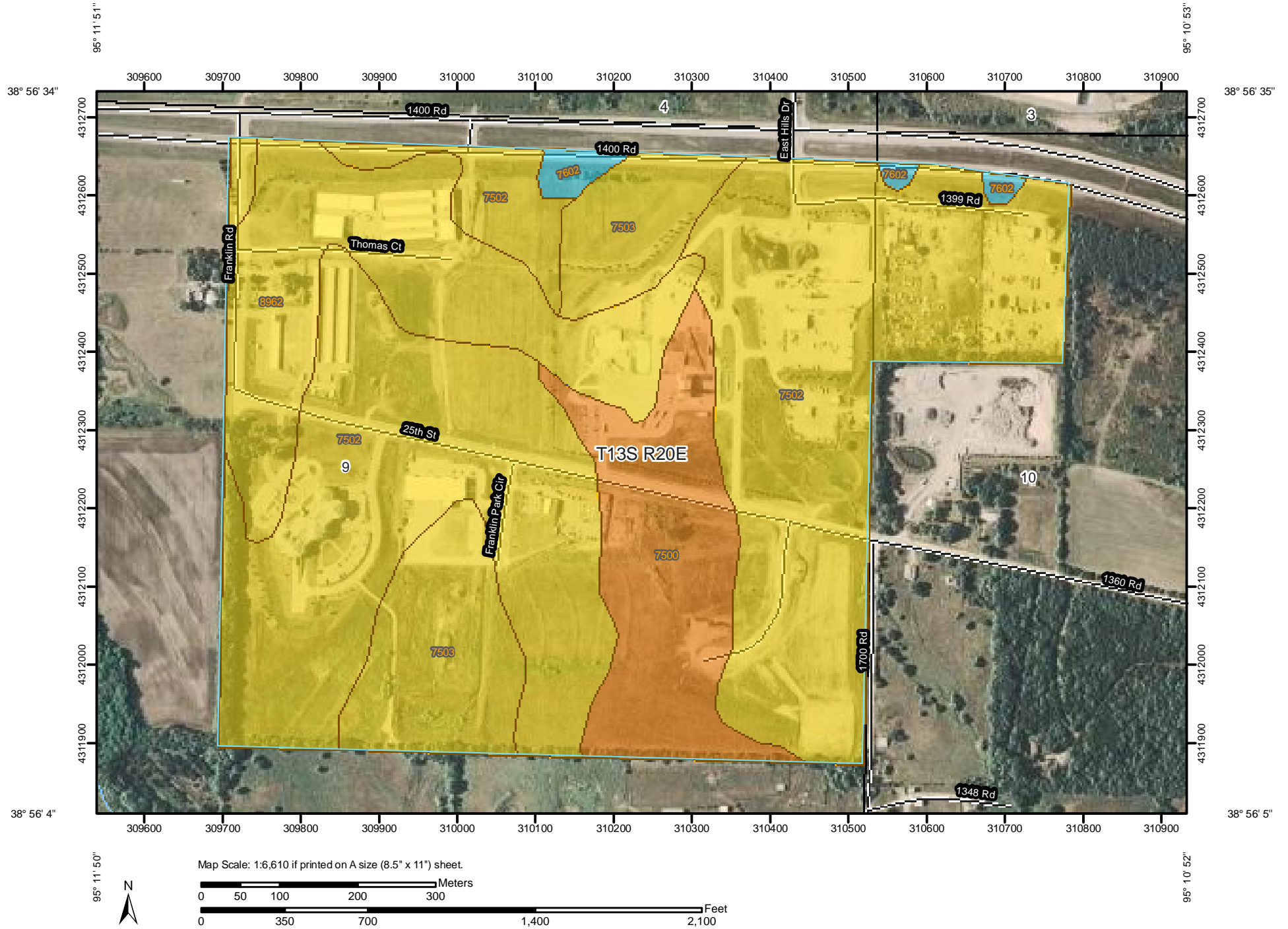
Rating Options

Aggregation Method: Dominant Condition

Component Percent Cutoff: None Specified

Tie-break Rule: Higher


Nonirrigated Capability Class—Douglas County, Kansas
(Southeast Industrial Area 200+ Acres)



Nonirrigated Capability Class–Douglas County, Kansas
(Southeast Industrial Area 200+ Acres)

MAP LEGEND










Area of Interest (AOI)

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Soils

 Soil Map Units



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



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Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

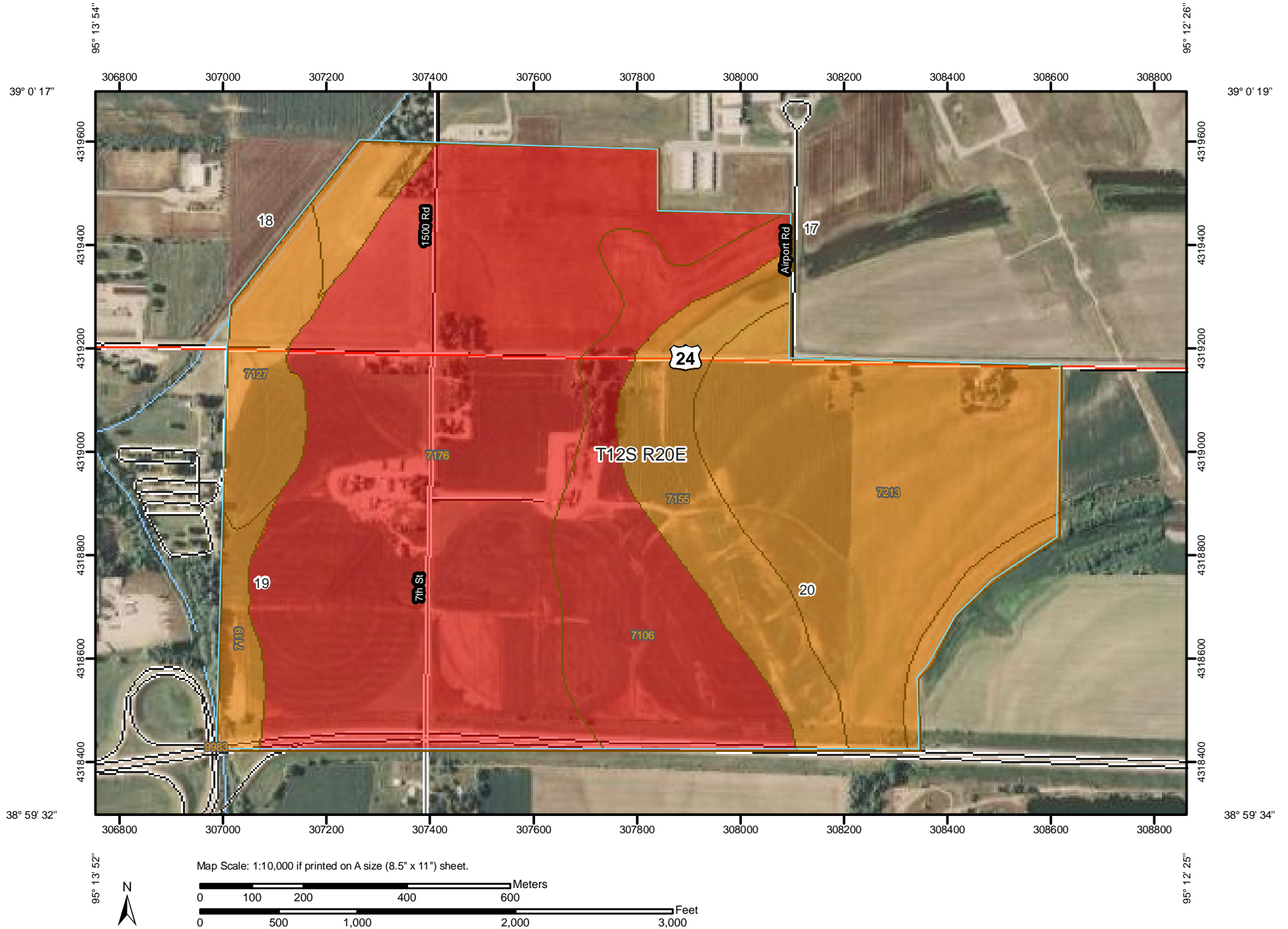
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7500	Pawnee clay loam, 1 to 3 percent slopes	2	21.3	12.3%
7502	Pawnee clay loam, 3 to 6 percent slopes	3	100.9	58.4%
7503	Pawnee clay loam, 3 to 6 percent slopes, eroded	3	20.5	11.9%
7602	Sibleyville complex, 7 to 12 percent slopes	6	2.0	1.1%
8962	Woodson silt loam, 1 to 3 percent slopes	3	28.1	16.3%
Totals for Area of Interest			172.8	100.0%


Nonirrigated Capability Class—Douglas County, Kansas
(Airport)



Nonirrigated Capability Class–Douglas County, Kansas
(Airport)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:10,000 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

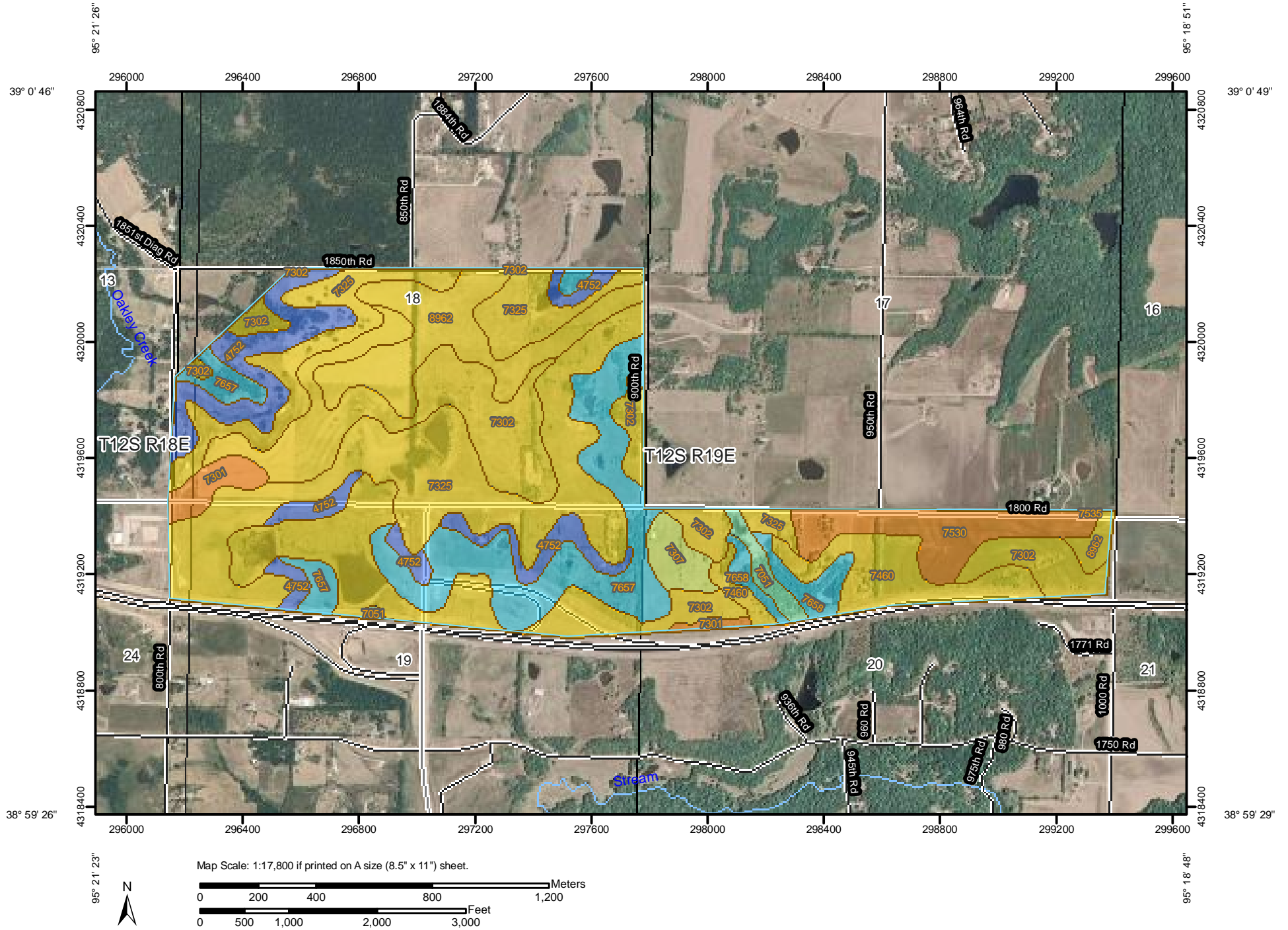
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7106	Eudora-Bismarckgrove silt loams, rarely flooded	1	53.3	14.3%
7119	Eudora-Urban land complex, rarely flooded	2	8.0	2.1%
7127	Eudora-Kimo complex, overwash, rarely flooded	2	18.5	5.0%
7155	Kimo silty clay loam, rarely flooded	2	47.7	12.7%
7176	Rossville silt loam, very rarely flooded	1	164.0	43.8%
7213	Reading silt loam, moderately wet, very rarely flooded	2	82.7	22.1%
9983	Gravel pits and quarries		0.0	0.0%
Totals for Area of Interest			374.2	100.0%


Nonirrigated Capability Class—Douglas County, Kansas
(I-70AndK-10)



Nonirrigated Capability Class—Douglas County, Kansas
(I-70AndK-10)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:17,800 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/26/2006; 6/15/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4752	Sogn-Vinland complex, 3 to 25 percent slopes	7	53.2	8.8%
7051	Kennebec silt loam, frequently flooded	5	7.2	1.2%
7301	Martin silty clay loam, 1 to 3 percent slopes	2	11.2	1.9%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	156.8	25.8%
7307	Martin soils, 3 to 7 percent slopes, eroded	4	10.0	1.7%
7325	Martin-Oska silty clay loams, 3 to 6 percent slopes	3	160.2	26.4%
7460	Oska silty clay loam, 3 to 6 percent slopes	3	34.9	5.8%
7530	Sharpsburg silt loam, 1 to 4 percent slopes	2	31.1	5.1%
7535	Sharpsburg silt loam, 4 to 8 percent slopes	3	0.2	0.0%
7657	Vinland-Martin complex, 7 to 15 percent slopes	6	77.2	12.7%
7658	Vinland-Rock outcrop complex, 15 to 45 percent slopes	6	12.7	2.1%
8962	Woodson silt loam, 1 to 3 percent slopes	3	52.1	8.6%
Totals for Area of Interest			606.8	100.0%

This is an aerial map of a rural area, likely in the T12S R19E section. The map features a color-coded overlay that delineates various land parcels or zones. The colors include yellow, green, blue, and orange. Several roads are labeled, including 818th Rd, 848th Rd, 900th Rd, 902nd Rd, 6th St, Renaissance Dr, and 1549 Rd. A central area is labeled 'T12S R19E'. Various colored regions are delineated, some with numbers like 30, 31, 32, 7607, 7651, 7602, 7657, 7601, 4732, and 4731. The map is framed by a coordinate grid with UTM and latitude/longitude values.

0 50 100 200 300

0 350 700 1,400 2,100 Feet




Web Soil Survey
National Cooperative Soil Survey

1/29/2011
Page 1 of 4

Nonirrigated Capability Class–Douglas County, Kansas
(K-10 and Highway 40)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:9,160 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/26/2006

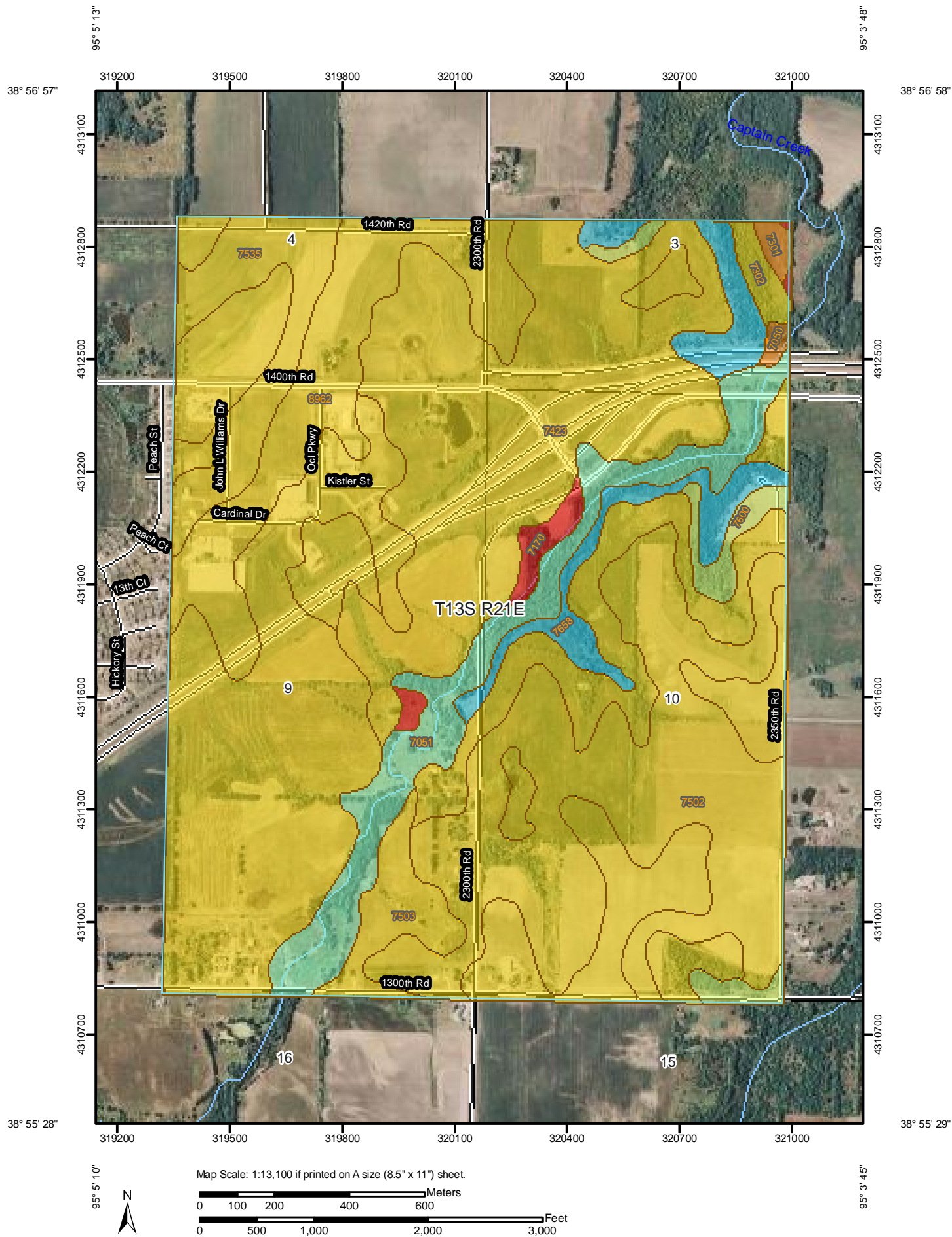
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Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4752	Sogn-Vinland complex, 3 to 25 percent slopes	7	17.9	4.6%
7051	Kennebec silt loam, frequently flooded	5	16.2	4.2%
7301	Martin silty clay loam, 1 to 3 percent slopes	2	28.0	7.3%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	163.3	42.3%
7307	Martin soils, 3 to 7 percent slopes, eroded	4	9.3	2.4%
7325	Martin-Oska silty clay loams, 3 to 6 percent slopes	3	37.9	9.8%
7460	Oska silty clay loam, 3 to 6 percent slopes	3	7.8	2.0%
7651	Vinland complex, 3 to 7 percent slopes	6	24.5	6.3%
7657	Vinland-Martin complex, 7 to 15 percent slopes	6	81.1	21.0%
Totals for Area of Interest			386.0	100.0%


Nonirrigated Capability Class—Douglas County, Kansas (Eudora North and Eudora South)



Nonirrigated Capability Class—Douglas County, Kansas
(Eudora North and Eudora South)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:13,100 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

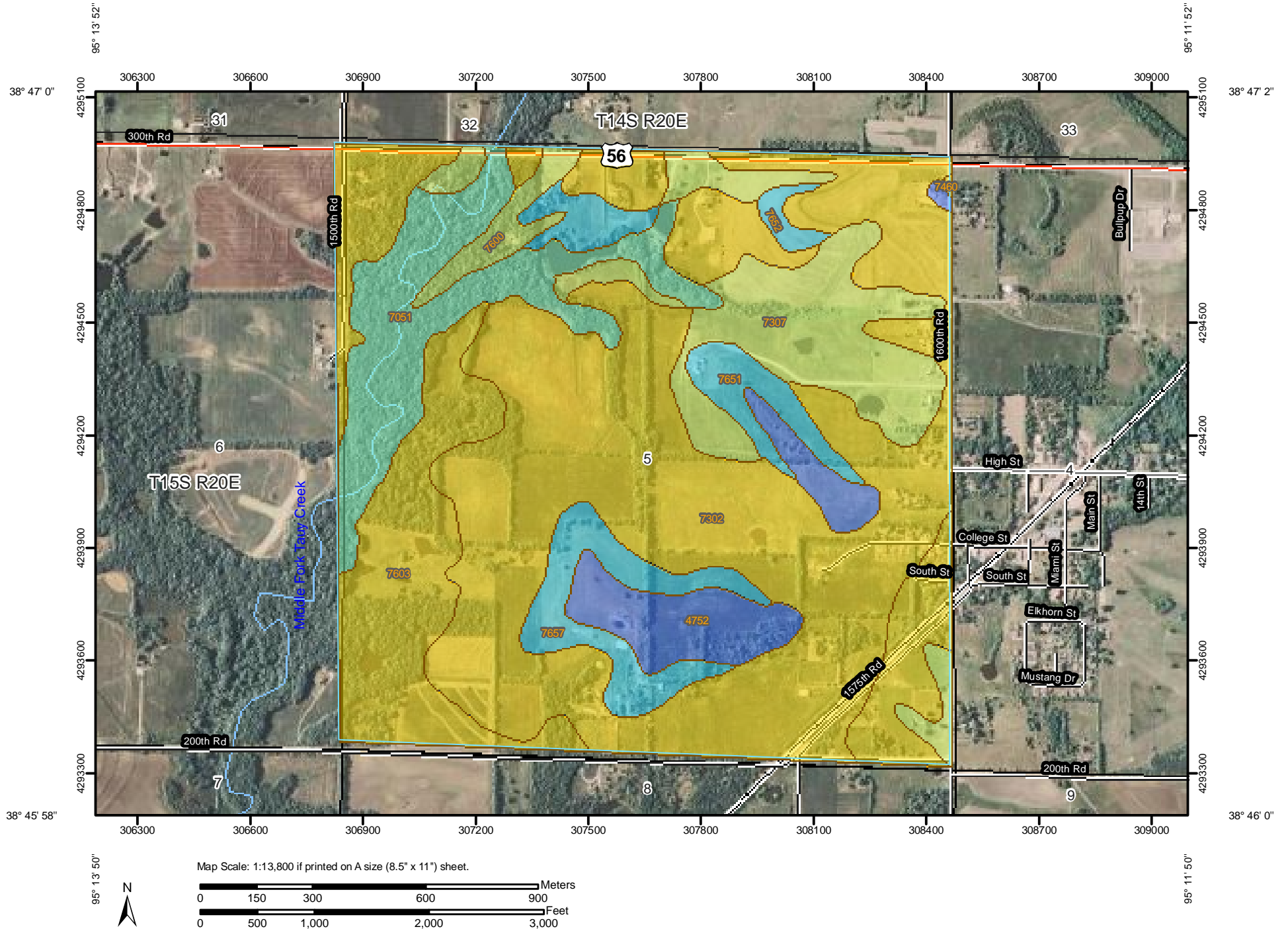
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7050	Kennebec silt loam, occasionally flooded	2	1.6	0.2%
7051	Kennebec silt loam, frequently flooded	5	54.6	6.5%
7170	Reading silt loam, rarely flooded	1	7.5	0.9%
7301	Martin silty clay loam, 1 to 3 percent slopes	2	2.6	0.3%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	5.3	0.6%
7423	Morrill clay loam, 3 to 7 percent slopes	3	247.3	29.3%
7502	Pawnee clay loam, 3 to 6 percent slopes	3	295.7	35.0%
7503	Pawnee clay loam, 3 to 6 percent slopes, eroded	3	30.2	3.6%
7535	Sharpsburg silt loam, 4 to 8 percent slopes	3	35.2	4.2%
7600	Sibleyville complex, 3 to 7 percent slopes	4	13.5	1.6%
7658	Vinland-Rock outcrop complex, 15 to 45 percent slopes	6	32.8	3.9%
8962	Woodson silt loam, 1 to 3 percent slopes	3	118.5	14.0%
Totals for Area of Interest			844.8	100.0%


Nonirrigated Capability Class—Douglas County, Kansas
(Baldwin City)



Nonirrigated Capability Class—Douglas County, Kansas
(Baldwin City)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:13,800 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
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Date(s) aerial images were photographed: 6/15/2006

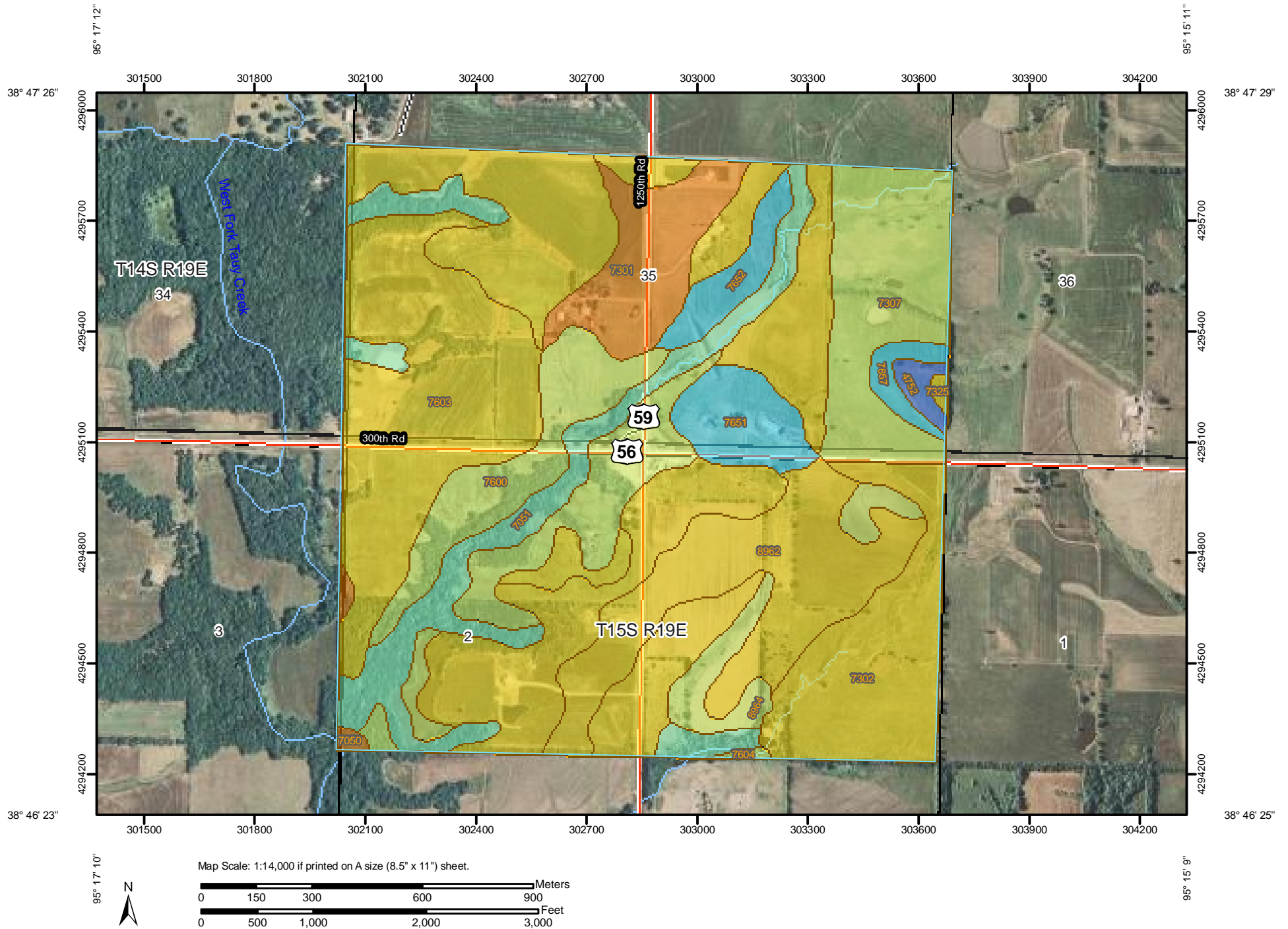
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Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4752	Sogn-Vinland complex, 3 to 25 percent slopes	7	35.8	5.5%
7051	Kennebec silt loam, frequently flooded	5	66.2	10.2%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	311.8	48.1%
7307	Martin soils, 3 to 7 percent slopes, eroded	4	64.0	9.9%
7460	Oska silty clay loam, 3 to 6 percent slopes	3	0.2	0.0%
7600	Sibleyville complex, 3 to 7 percent slopes	4	22.5	3.5%
7603	Sibleyville loam, 3 to 7 percent slopes	3	92.1	14.2%
7651	Vinland complex, 3 to 7 percent slopes	6	23.1	3.6%
7652	Vinland complex, 3 to 7 percent slopes, eroded	6	4.0	0.6%
7657	Vinland-Martin complex, 7 to 15 percent slopes	6	27.8	4.3%
Totals for Area of Interest			647.6	100.0%


Nonirrigated Capability Class—Douglas County, Kansas
(Highway 56 and Highway 59)



Nonirrigated Capability Class—Douglas County, Kansas
(Highway 56 and Highway 59)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:14,000 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

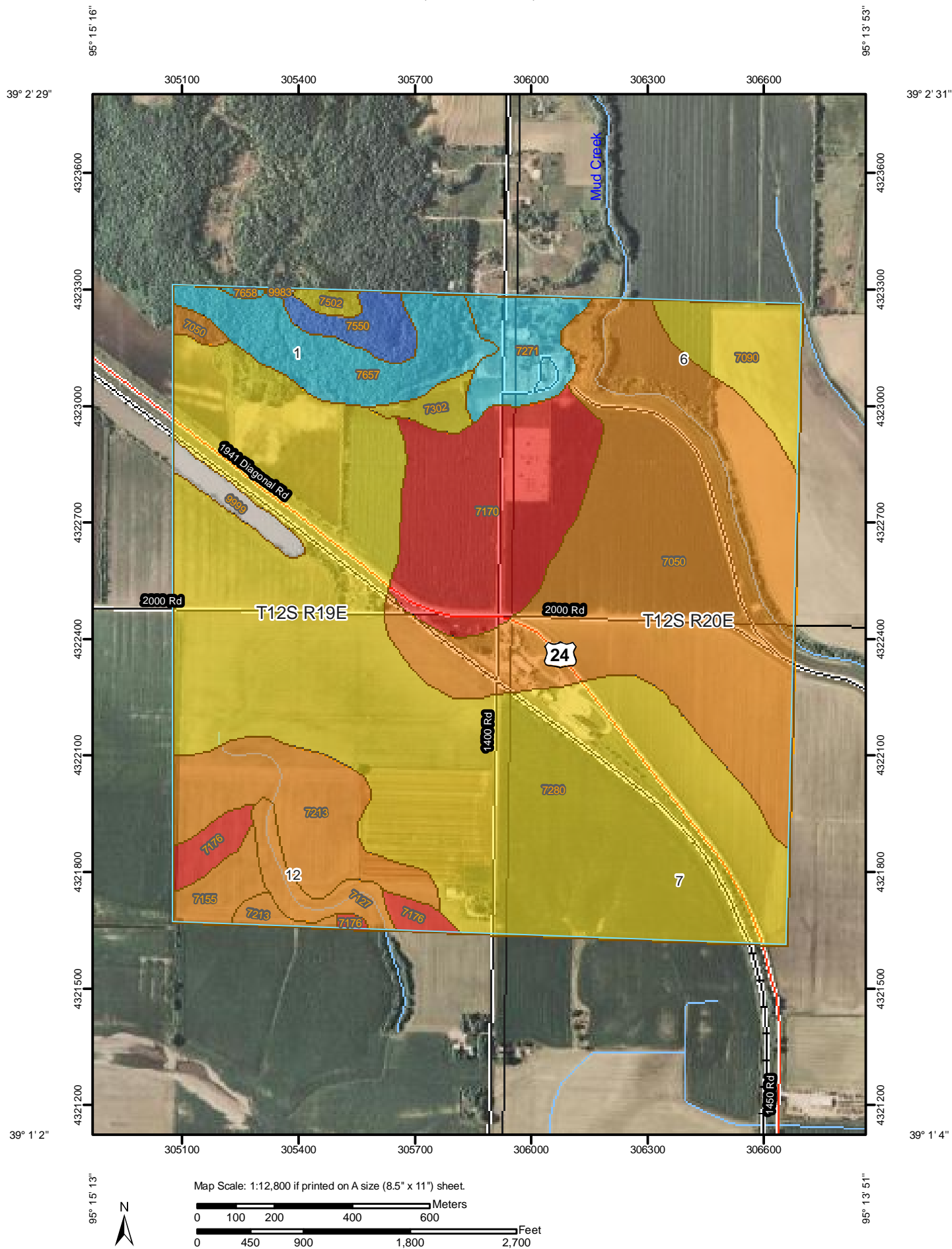
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Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
4752	Sogn-Vinland complex, 3 to 25 percent slopes	7	3.8	0.6%
7050	Kennebec silt loam, occasionally flooded	2	2.1	0.3%
7051	Kennebec silt loam, frequently flooded	5	57.6	8.8%
7301	Martin silty clay loam, 1 to 3 percent slopes	2	33.5	5.1%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	142.2	21.7%
7307	Martin soils, 3 to 7 percent slopes, eroded	4	53.6	8.2%
7325	Martin-Oska silty clay loams, 3 to 6 percent slopes	3	1.0	0.1%
7600	Sibleyville complex, 3 to 7 percent slopes	4	74.0	11.3%
7603	Sibleyville loam, 3 to 7 percent slopes	3	120.8	18.4%
7604	Sibleyville loam, 3 to 7 percent slopes, eroded	4	0.9	0.1%
7651	Vinland complex, 3 to 7 percent slopes	6	19.6	3.0%
7652	Vinland complex, 3 to 7 percent slopes, eroded	6	12.6	1.9%
7657	Vinland-Martin complex, 7 to 15 percent slopes	6	6.0	0.9%
8962	Woodson silt loam, 1 to 3 percent slopes	3	116.2	17.7%
8964	Woodson silty clay loam, 1 to 3 percent slopes, eroded	4	11.7	1.8%
Totals for Area of Interest			655.5	100.0%


Nonirrigated Capability Class—Douglas County, Kansas
(Midland Junction)



Nonirrigated Capability Class–Douglas County, Kansas
(Midland Junction)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:12,800 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

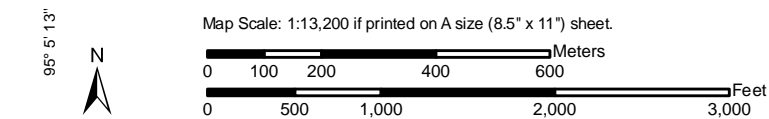
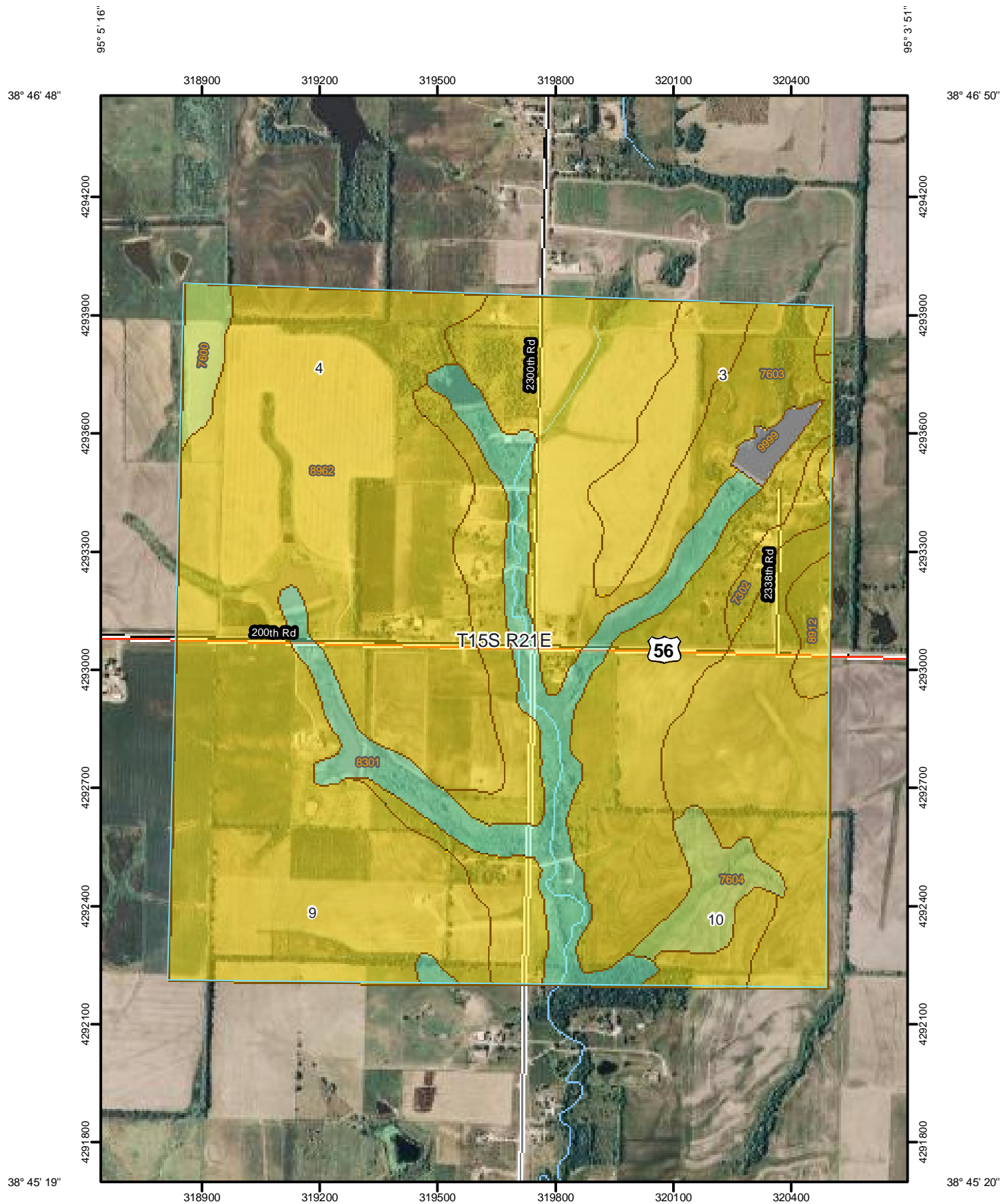
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Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7050	Kennebec silt loam, occasionally flooded	2	159.6	24.5%
7090	Wabash silty clay loam, occasionally flooded	3	21.4	3.3%
7127	Eudora-Kimo complex, overwash, rarely flooded	2	9.7	1.5%
7155	Kimo silty clay loam, rarely flooded	2	7.6	1.2%
7170	Reading silt loam, rarely flooded	1	59.2	9.1%
7176	Rossville silt loam, very rarely flooded	1	9.4	1.4%
7213	Reading silt loam, moderately wet, very rarely flooded	2	37.0	5.7%
7271	Falleaf-Grinter soils, 8 to 20 percent slopes	6	17.3	2.7%
7280	Wabash silty clay, very rarely flooded	3	277.3	42.6%
7302	Martin silty clay loam, 3 to 7 percent slopes	3	5.0	0.8%
7502	Pawnee clay loam, 3 to 6 percent slopes	3	2.4	0.4%
7550	Rosendale-Bendena silty clay loams, 3 to 40 percent slopes	7	8.7	1.3%
7657	Vinland-Martin complex, 7 to 15 percent slopes	6	29.9	4.6%
7658	Vinland-Rock outcrop complex, 15 to 45 percent slopes	6	0.7	0.1%
9983	Gravel pits and quarries		0.3	0.0%
9999	Water		6.1	0.9%
Totals for Area of Interest			651.6	100.0%


Nonirrigated Capability Class—Douglas County, Kansas
(Highway 56 and K-33)



Nonirrigated Capability Class—Douglas County, Kansas
(Highway 56 and K-33)

MAP LEGEND










Area of Interest (AOI)

 Area of Interest (AOI)




Soils

 Soil Map Units



Soil Ratings

-  Capability Class - I
-  Capability Class - II
-  Capability Class - III
-  Capability Class - IV
-  Capability Class - V
-  Capability Class - VI
-  Capability Class - VII
-  Capability Class - VIII
-  Not rated or not available





Political Features

-  Cities
-  PLSS Township and Range
-  PLSS Section

Water Features

-  Oceans
-  Streams and Canals

Transportation

-  Rails
-  Interstate Highways
-  US Routes
-  Major Roads



Local Roads

MAP INFORMATION

Map Scale: 1:13,200 if printed on A size (8.5" × 11") sheet.

The soil surveys that comprise your AOI were mapped at 1:24,000.

Please rely on the bar scale on each map sheet for accurate map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>
Coordinate System: UTM Zone 15N NAD83

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Douglas County, Kansas
Survey Area Data: Version 8, Nov 30, 2010

Date(s) aerial images were photographed: 6/15/2006

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.



Nonirrigated Capability Class

Nonirrigated Capability Class— Summary by Map Unit — Douglas County, Kansas				
Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
7302	Martin silty clay loam, 3 to 7 percent slopes	3	8.0	1.1%
7600	Sibleyville complex, 3 to 7 percent slopes	4	9.5	1.3%
7603	Sibleyville loam, 3 to 7 percent slopes	3	215.4	29.9%
7604	Sibleyville loam, 3 to 7 percent slopes, eroded	4	15.8	2.2%
8301	Verdigris silt loam, frequently flooded	5	67.6	9.4%
8912	Summit silty clay loam, 3 to 7 percent slopes	3	8.6	1.2%
8962	Woodson silt loam, 1 to 3 percent slopes	3	389.8	54.2%
9999	Water		4.8	0.7%
Totals for Area of Interest			719.4	100.0%

January 24, 2011

Dear Commissioners,

Citizens for Responsible Planning is appreciative of the time you are taking to conduct a joint study session on both the Northeast Sector Plan and the Environmental Chapter of Horizon 2020.

We would like to present some information for your consideration using maps referenced within the Northeast Sector Plan. It is our feeling that graphically placing the proposed industrial area on these existing maps gives clear context to the challenges facing development in this area.

We are focusing on the following maps:

Map 3-1	Northeast Sector Plan - Future Land Use pg. 3-13
Map 2-9	Regulatory Flood Hazard Area and Streams - Flood Hazard Area pg. 2-18
Map 2-13	Class I and II Soils pg. 2-22
Map 2-15	Airspace Overlay Zones pg. 2-26
Map 2-16	FAA Wildlife Mitigation Buffer pg. 2-27

We have placed comment boxes on each of these mapping tools. Our specific request is that you consider and discuss all restrictive regulatory elements that would impact development in this proposed industrial area. We would also ask that the recommendations within the North Lawrence Drainage Study and the difficulty of supplying sewer and water to this area be fully understood.

The great likelihood of catastrophic flooding, not unlike that of 1993, the expense of infrastructure, both installation, need of redundancy built into the system, and associated maintenance make this an extremely costly area to develop.

The Northeast Sector also contains the largest contiguous acres of Capability Class I and II Soils. This land attribute is presented nowhere else in Douglas County.

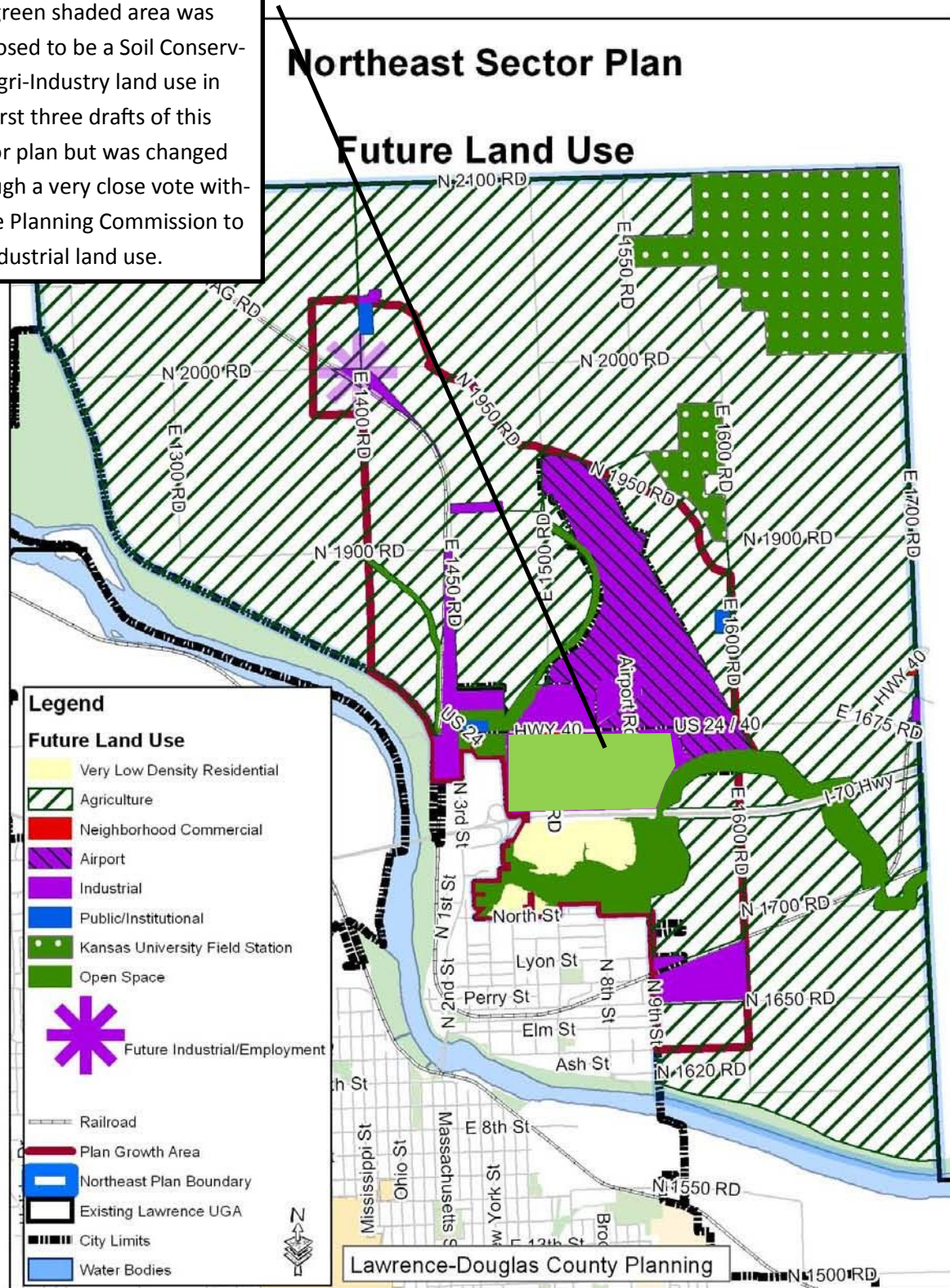
Citizens for Responsible Planning is developing a study of all eleven sites identified on Map 7-2 - Potential Location for Future Industrial and Employment Related Land Use in Chapter 7 of Horizon 2020. This mapping exercise will demonstrate the many options available to our community for future industrial sites that do not present the extreme challenges or contain comparable content of contiguous acres of Capability Class I and II Soils.

With great respect.

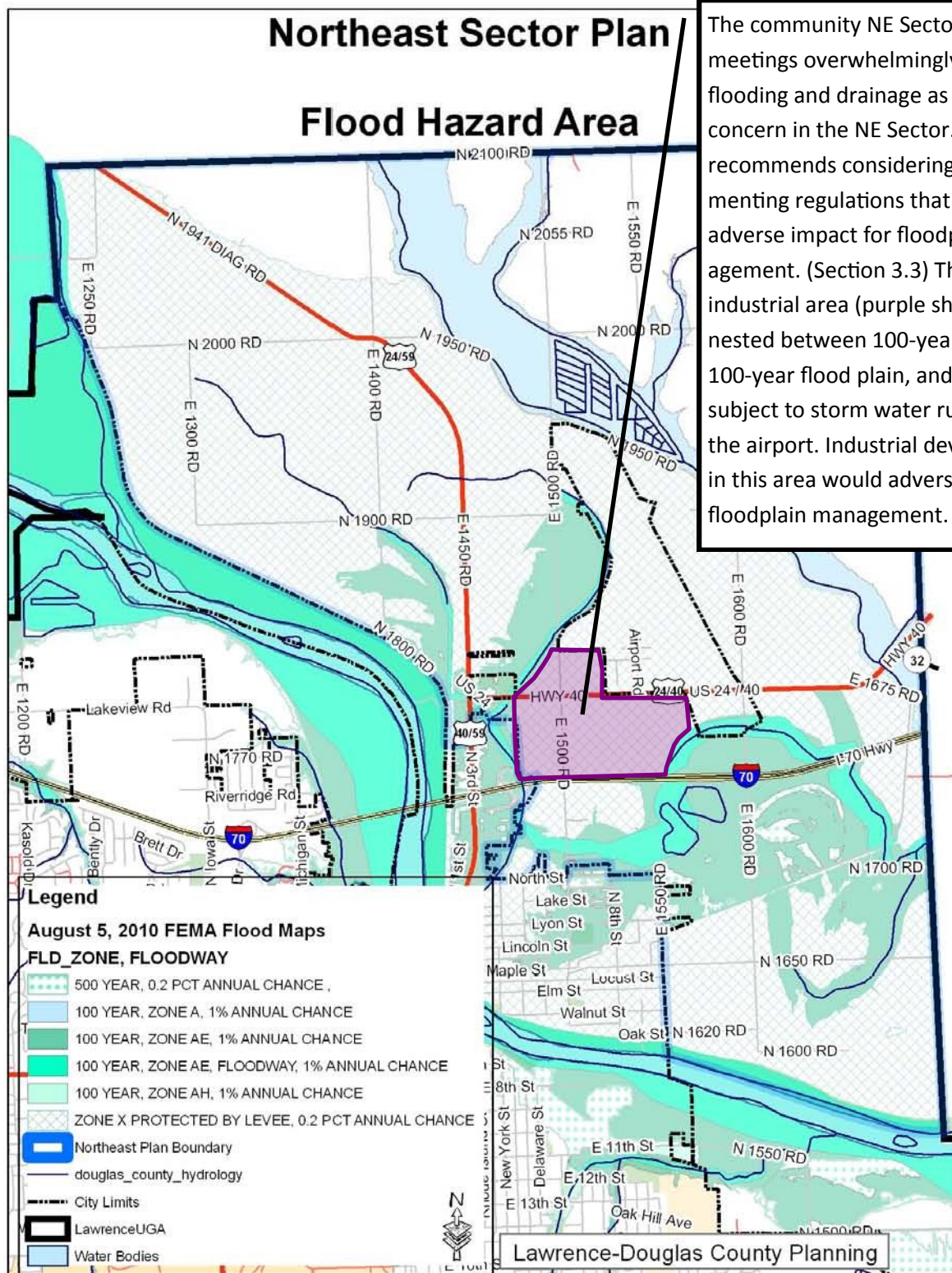
Citizens for Responsible Planning Steering Committee

Map 3-1 – Future Land Use

The green shaded area was proposed to be a Soil Conserving Agri-Industry land use in the first three drafts of this Sector plan but was changed through a very close vote within the Planning Commission to an Industrial land use.

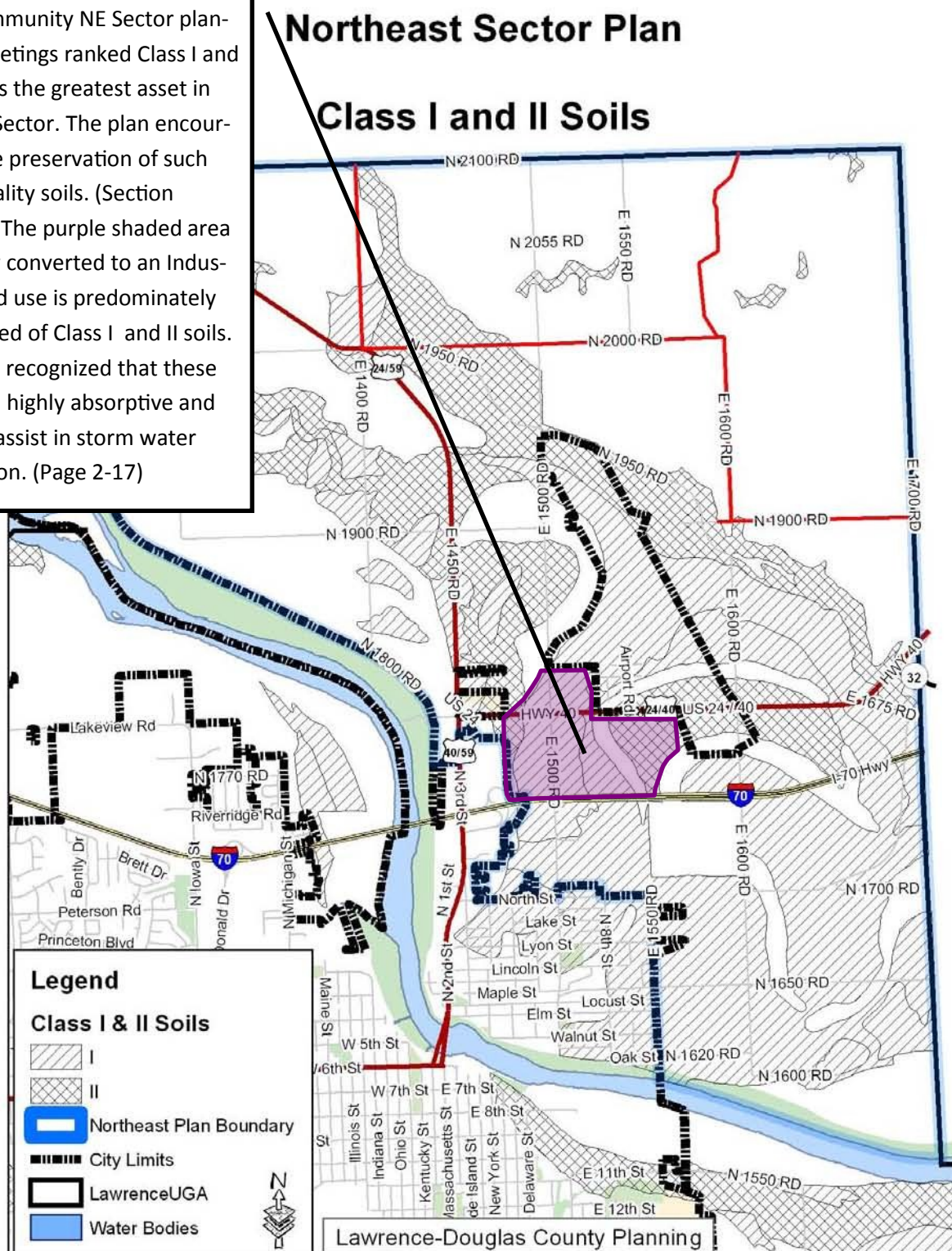


Map 2-9 – Regulatory Flood Hazard Area and Streams

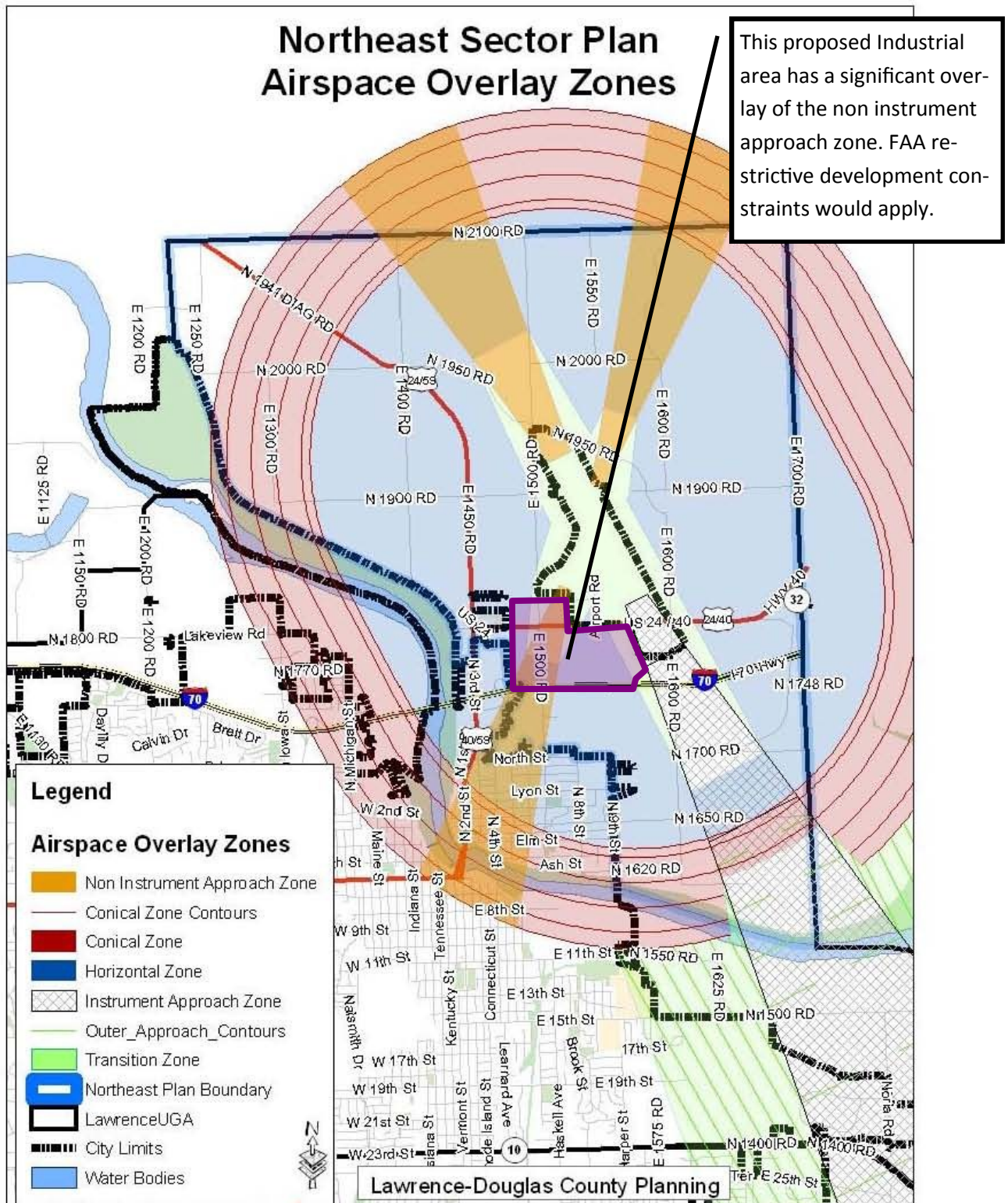


Map 2-13 – Class I and II Soils

The community NE Sector planning meetings ranked Class I and II soils as the greatest asset in the NE Sector. The plan encourages the preservation of such high quality soils. (Section 3.1.2.1) The purple shaded area recently converted to an Industrial land use is predominately composed of Class I and II soils. It is also recognized that these soils are highly absorptive and greatly assist in storm water mitigation. (Page 2-17)



Map 2-15 – Airspace Overlay Zones



Northeast Sector Plan



2-27



Lawrence Board of REALTORS®
3838 W. SIXTH STREET / LAWRENCE, KANSAS 66049

December 10, 2010

Lawrence City Commission
City Hall
P.O. Box 708
Lawrence, KS 66044

Dear Commissioners –

On behalf of the Lawrence Board of REALTORS®, thank you for the opportunity to submit written comments detailing our position on the current draft of Chapter 16 to Horizon 2020. Although we support the intent behind the draft chapter in promoting a quality living environment for the citizens of our community, we believe the adoption of this proposal in its current form is not in the best long-term interest for economic development and job creation in our community.

As real estate professionals who are involved on a daily basis in community development discussions, we strongly believe that our local governments should exhibit strong leadership in adopting policies and regulations that will promote economic development and job creation in this community. If a policy does not promote these goals, then we believe that the adoption of such a policy only serves to create opportunities for other communities who will benefit from those new opportunities at our expense.

In reviewing the draft chapter, we believe the fundamental standards of review should be: (1) whether the document exhibits the proper balance between promoting environmental sustainability and creating economic development; and (2) whether the document will promote job creation and economic development in our community? In our opinion, a community can only deliver a high quality of life and economic prosperity to its citizens by succeeding on both measures of success.

Following a thorough review of the draft chapter, we strongly believe that the adoption of this proposal in its current form fails to achieve a satisfactory outcome on either measure of success. Despite the stated intent to “ensure there is a balance between environmental and developmental concerns” in the chapter, the current language of the chapter represents a gross imbalance between environmental and economic development concerns.

Draft Chapter Fails to Exhibit Balance Between Environmental and Economic Development Issues

In its current form, the draft chapter fails to demonstrate a proper balance between the promotion of environmental sustainability and the creation of economic development opportunities. While the draft chapter purports to seek a balance between these two items, the actual language utilized in the chapter focus almost exclusively on environmental sustainability at the expense of economic development.

Although the draft chapter notes that numerous advisory groups focusing on environmental sustainability were asked to contribute recommendations to the language, there is a glaring omission on the countervailing side in that no input or recommendations have been adopted from groups that focus on economic development-related goals and policies. In our opinion, the absence of input from these organizations unfairly skews the draft chapter towards an extreme view of environmental sustainability.

Draft Chapter Will Inhibit Economic Development and Job Creation in Our Community

In total, the draft chapter calls for the creation of nearly 50 new projects and studies to be implemented by consultants and planning staff to implement the goals and strategies of the chapter. At a time when the city is struggling to identify the resources needed to maintain core functions, we believe it is fiscally irresponsible to burden staff even further with these additional projects and studies.

Furthermore, the draft chapter creates 19 different new mandates for planning staff and property developers through the use of the word “shall” in various places throughout the draft chapter. In every instance, compliance with the new mandates will create an enormous financial and resource burden on planning staff and property developers to adhere to the burdensome mandates of the draft chapter.

Although the introductory notes of the draft chapter state that “this chapter is meant as a guide” for informing the public and property owners on the issues contained in the chapter, the use of the word “shall” and an examination of the other language in the chapter would reveal that the chapter goes beyond a simple guide to create a new set of mandates on the use of property in our community.

In addition, the draft chapter seems to create new local regulations that either mimic or exceed existing state and federal regulations on various environmental issues relating to land use. If adopted, these new regulations could drastically increase the cost of developing new commercial, industrial and residential properties in our community and drive new development to communities with less local regulations.

Conclusion

In closing, the draft chapter does not even attempt to explain the potential harmful impacts the new policies will have on existing property owners, businesses and farming operations in our community. In our opinion, the Planning Commission should create a comprehensive map showing the areas designated for regulation under the draft chapter and distribute this map to potentially affected property owners so they can have input into the draft chapter.

The adoption of this chapter could drastically increase the cost of developing their property for commercial, industrial or residential use and could thus dramatically decrease the value of their property. In these situations, we believe that these property owners have an absolute right to participate in this process.

Thank you for the opportunity to provide our comments on this issue. I would be more than happy to stand for any questions at the appropriate time.

Sincerely,

Luke Bell
Governmental Affairs Director
Lawrence Board of REALTORS®
3838 W. Sixth St.
Lawrence, KS 66049
lbell@kansasrealtor.com



REPORT

To: Lawrence Mayor and City Commissioners
From: Lawrence Chamber of Commerce Development Review Committee
Date: December 9, 2010
Re: Chamber Report
Draft Chapter 16, Environment - Horizon 2020

Executive Summary

Environmental protection and conservation are very important to our community as they relate to the values, quality of life and vibrancy of Lawrence and Douglas County. The Lawrence Chamber of Commerce knows that a quality environment contributes to the ability to create new jobs, garner new business and industry, and grow existing businesses to the benefit of the community. The Chamber, therefore, supports the Ch. 16 adoption effort.

Accordingly, The Chamber review of the draft Ch. 16 document is tempered by two important questions: First, is this chapter a balanced one, truly integrating and reflecting the aspects necessary for Lawrence to thrive? Second, what does this chapter do to promote job creation and economic development in Lawrence and Douglas County? While introductory recommendations state the intention to "foster a healthy environment that contributes to a growing economy and livable community" and to "ensure there is a balance between environmental and developmental concerns", indications of imbalance between environmental and economic concerns is the subject of this report.

For immediate consideration, we request the following actions on the part of the City Commission:

1. Please do not act to approve or deny the Ch. 16 draft document. Rather refer the document, with our comments below, back to study session, to include additional stakeholder entities also listed below.
2. Develop an informational map indicating, for the benefit of the potentially affected property owners and business owners, the properties in the City and County that stand to be affected by the far-reaching proposals contained in the draft document. (It is our understanding that such a map has been requested previously, although no such map has been produced thus far.)
3. Provide proper legal notice to affected property owners and promote public participation in the continued development and review of Ch. 16.

We request and recommend that the Ch. 16 document be revisited and the following items be thoroughly addressed prior to adoption by the City of Lawrence:

I. Stakeholder Involvement

In the introductory paragraphs, the draft document mentions the involvement and/or influence of ECO², Sustainability Advisory Board, Mayor's Climate Control Protection Task Force, Peak Oil Task Force and the Local Food Policy Council.

To maintain a balanced approach, other stakeholders should be expressly involved and mentioned, including but not limited to [for instance], Cities of Baldwin, Eudora and Perry LeCompton, Douglas County Development, Inc., Douglas County Farm Bureau, Kaw Valley Drainage District, Lawrence Douglas County Bioscience Authority, Lawrence Board of Realtors, Lawrence Homebuilders Association, Natural Resource Conservation Service, The University of Kansas and KDOT.

II. Education of the Public

A. Public education regarding the issues is likely to be necessary with efforts set forth in the draft document. A typical mention of public education reads [for example], "Develop public outreach and educational programs to increase public awareness concerning the importance of _____".

To maintain a balanced approach and promote the fiscal goals mentioned in the document, references to public educational efforts should be expanded to the affect, "...and how these features [or practices, etc.] interact with the local economy and job growth in a mutually beneficial way".

B. Fourteen (14) education and outreach programs for businesses, government officials and/or the general public are proposed in the draft document. The following sections propose programs regarding:

1.4 Wetlands	2.2 Urban Forest	3.6 Indoor Air Pollution
1.5 Subsurface water	2.4 Natural Habitats	5.1 Recycling
1.6 Floodplain	3.1 Air Pollution	6.6 Irrigation
1.7 Erosion Control	3.2 Vehicle Exhaust	6.6 Energy Consumption
2.2 Woodlands	3.3 General Emissions	

It is prudent to assess the costs and benefits of fulfilling these potentially work-intensive and time-consuming programs. Similarly, consider paring-down the quantity of proposed programs. While p. 16-3 states action steps "may take time to complete", further clarify in the body of the document that it is unlikely certain programs will be in place prior to continued community development activity.

III. Incentives

Twenty-four (24) references to the creation of incentives to help implement goals and policies are mentioned in the draft document. Example sections include:

1.4.c. Develop regulations and **incentives** for the retention and protection of the wetlands identified through the inventory focusing on impacts from both on-site and off-site development activity that affects the wetlands in question.

2.2.b.2. Adopt an Urban Forestry Master Plan and associated policies, programs, and **incentives** for the preservation and enhancement of Lawrence's urban forest on both

public and private property, through development and zoning codes, emphasizing the use of trees appropriate to the climate of this region.

2.4.i. Develop a combination of educational programs, **incentives**, and development standards that recognize and promote sound management practices by private land owners to maintain the health of natural habitats on private property.

The word “incentive” can mean “fear of punishment”, or it can mean “expectation of a reward”. While we generally assume the word to mean “expectation of a reward”, the concept should be clarified in the document. Moreover, the word “incentive”, used in the latter, positive sense, suggests that something more than is typically offered is rewarded in exchange for the desired outcome (i.e. extraordinary wetland, forest, or habitat preservation, etc.)

In any case, the term “incentive” should be defined in the Glossary of Terms, and sample incentives should be added to the body of the document for clarity.

IV. Staff/Consultant “Projects”

Approximately fifty (50) staff and/or consultant projects are proposed to be undertaken by the City and/or County to implement goals and policies mentioned in the draft document. A portion of these projects is described in the above-mentioned “incentive” paragraphs. Other examples of such projects include:

1.4.a. **Inventory and map wetlands** in the county; identifying them based on the priority criteria listed in The Wetland Federal Regulations 33 CFR Part 320.4, as amended.

1.5.a. Conduct an inventory of Douglas County and **identify any significant areas of groundwater recharge** to maximize opportunities for protection of water quality.

1.7.d. **Maintain an inventory of stormwater structures** for ongoing inspection, compliance and maintenance procedures. Establish an inspection and maintenance plan with property owners as part of Best Management Practices (BMPs).

2.2.a. The City and County shall partner with other agencies and institutions to **inventory and map woodlands within the county**. The inventory and map should identify the different types of woodlands (‘high quality natural areas’, woodlands which form, or could form, corridors or greenways and riparian woodlands) and **provide a ranking system in priority order for protection**.

3.5.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.

It is prudent to assess the costs and benefits of fulfilling these potentially work-intensive and time-consuming projects. Similarly, consider paring-down the quantity of proposed programs. While p. 16-3 states action steps “may take time to complete”, further clarify in the body of the document that it is unlikely certain projects will be in place prior to continued community development activity.

V. Use of the Word “Shall”

The word “shall” is used nineteen (19) times in the draft document. Examples include:

Chapter Utilization Code regulations **shall** be developed to achieve the policies discussed in this chapter.

1.3.b. The City and County **shall** identify and map priority wetlands, surface water buffer areas, and riparian areas within each watershed.

2.2.b.1. The City **shall** conduct an inventory of the Urban Forest.

4.1.a. To minimize negative environmental impacts, the City and County **shall** work with applicable state agencies to develop appropriate operation standards for harvesting, collecting, recovery and extraction of marketable natural resources, and provide for effective reclamation of land.

Introductory notes in the draft document state, "This chapter is meant as a guide...", reiterating multiple statements found in the main introduction to Horizon2020 itself. Conversely, the word "shall" is arbitrary, inferring an edict and, therefore, is inappropriate in numerous instances in the Ch. 16 document.

We suggest a review of the draft document to replace the word "shall" with more conforming words and phrases such as, "are likely to be", "should", "should encourage", or "may".

VI. Excessive Local Standards

Numerous locations within the body of the draft suggest altering local regulations to either mimic state and federal regulations already in place, or exceed them. The following are some examples, followed by additional questions/comments added in *italics*:

1.4.a. Inventory and map wetlands in the county; identifying them based on the priority criteria listed in The Wetland Federal Regulations 33 CFR Part 320.4, as amended. *If a city- or county-wide wetland map is created, will this preclude individual owners from performing typically required wetland delineation and assessment work at time of grading or construction? If not, why would we want to do this twice?*

1.6.a. The City and County shall maintain floodplain regulations that meet or exceed National and State regulations. Exceeding National and State regulations benefits the community by reducing the threat to human life, reducing property loss and ensuring water quality. Consider further limiting new development from encroaching into the regulatory floodplain by adopting regulations that promote no adverse impact in flood hazard areas. *Existing federal and state floodplain development permitting is quite difficult and requires significant work to obtain. Why would we ask local owners/operations to uniquely exceed these requirements? If deemed necessary, what regulations or policies are desired?*

1.7.b. Develop strong erosion and sediment control policies on construction sites that include consistent and effective enforcement to improve stormwater quality. *Federal and state requirements dictate Stormwater Pollution Prevention Plans and NPDES permits with all land disturbance operations in excess of an acre. Why are additional local policies necessary? If deemed necessary, what regulations or policies are desired?*

1.7.c. As part of the City of Lawrence's overall stormwater management strategy, maintain regulations and policies that are consistent with the provisions and goals of the Clean Water Act, including its National Pollutant Discharge Elimination System (NPDES) Program, and other federal, state and local requirements for water quality and environmental preservation. *Federal and state requirements dictate Stormwater Pollution Prevention Plans and NPDES permits with all land disturbance operations in excess of an acre. Why are additional local policies necessary? If deemed necessary, what regulations or policies are desired?*

VII. High Quality Agricultural Land

The Chamber agrees in principle with the concept of conservation of "high quality agricultural land". However, at least two locations within the body of the draft prescribe the "protection" of such property:

Land Resources and Management - Summary of Issues, Item 2

This land requires less intervention to produce high yields of crops with high nutrition and should be **protected**, preferably for food production.

2.7.a. The **protection** of High Quality Agricultural Land shall be used as a key assumption in the sector planning process.

Where applicable in the body of the document, the word "protection" should be replaced with the word "conservation", to provide flexibility during the evaluation of land use proposals or studies where soils identified as being "high quality" exist in proximity to existing transportation infrastructure, major utilities and urban growth patterns. In such cases, multiple conditions (in addition to soil type) may constitute "key assumptions" and should be considered in a balanced way -- language to this affect should be added to the body of the document.

Also consider establishing [for the purpose of this document and other community planning purposes] a quantity (area) of productive farmland necessary to reach "sustainable" status for agriculture in the City/County. As of now, approximately 400 acres of fruits and vegetables are in production within Douglas County. This represents a noticeably very small percentage of the total arable farmland in the County, which brings into question the necessary quantity and extent of "protection" of "High Quality Agricultural Land" the City and County. This matter should be addressed in the body of the document.

VIII. Topography

The following statements are found in the draft document:

Land Resources and Management - Summary of Issues, Item 1

Developing on steep slopes can be costly and permanently alters the natural slope of the land which may have detrimental effects on other natural features, stormwater runoff and habitats.

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

Farmers, developers and owners typically avoid disturbing land in areas of excessive slope, unless clearly necessary. Where efficient use of land and resources warrant disturbance of steep slopes, retaining

walls, terracing and placement of erosion control materials are used [as required by federal and state Stormwater Pollution Prevention requirements and NPDES permitting]. Such instances include [for example] the Oread Inn, Stonegate Subdivision, numerous Alvamar properties, East Hills Business Park and former Farmland Industries. To maintain a balanced approach and promote the fiscal goals mentioned in the document, any references to development on steep slopes should be expanded to the affect, "...and where necessary, should be performed in conformance with development conventions and regulated erosion mitigation practices".

IX. Effects of this Chapter

The draft document does not explain the potential impacts of this policy upon existing property owners, businesses and farming operations in the City and County. Will these policies apply only to new farms, agri-businesses, residents, industry and development? Will existing owners continue to exercise their present rights to buy, sell, clear, conduct grading operations, irrigate, illuminate and generally operate upon their properties as they do now?

This document should include a thorough explanation of proposed effects upon all ongoing legitimate operations on private and public property throughout the City and County.

X. Public Notice

This chapter proposes significant impacts throughout the County, pertaining to view sheds, wetlands, ground water, emissions, grading, plant selection, urban forest and woodlands areas, hours of operation, use of chemicals and fertilizers, livestock operations, natural resources, open space, etc.

A comprehensive map showing areas designated for regulation by this chapter should be made available so that potentially affected parties are clearly aware of impending policy changes, as part of the adoption process.

While it will be a substantial task to notify owners of the effects of this document upon their ability to farm, operate, develop or otherwise improve lands, it seems imperative to do so. This would be similar to the legal notice to neighboring owners required with any development or significant land improvement proposal in Lawrence-Douglas County.

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.

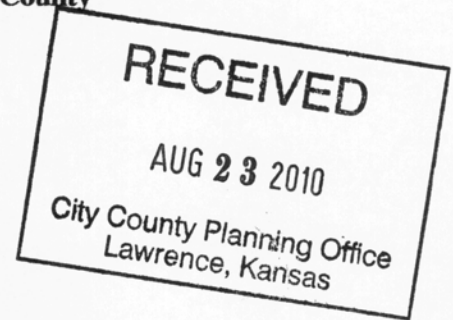
Sincerely,
Barbara Clark

"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."¹

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,*

¹ *Towards a Sustainable America: Advancing Prosperity, Opportunity, and a Healthy Environment for the 21st 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 Plan² includes protection measures for rare and endangered species and is geared toward practices and policies that would help keep common species from becoming endangered.*

Please include the other soils that are listed as "prime agricultural soils." For example, the State Soil is an upland soil called "Harney." See footnote. Or, better, simply state "preserve existing agricultural land and land use."

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.

This is a step backwards. Development on steep slopes must be avoided.

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.

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

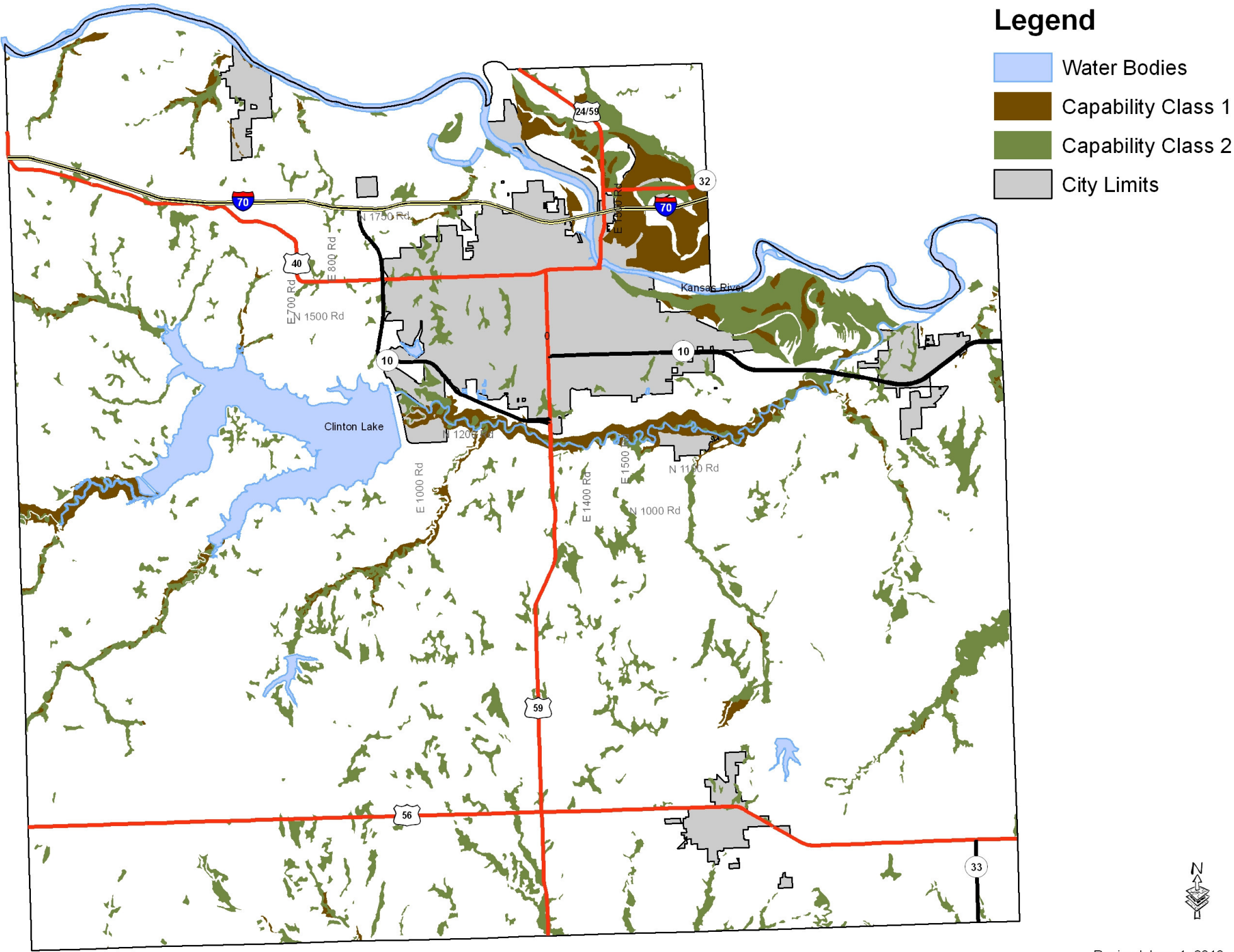
Policy 2.7 Encourage the protection of High Quality Agricultural Land in Douglas County for current ~~or~~ and future agricultural use.

- 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^{,preserve,} 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."*³

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

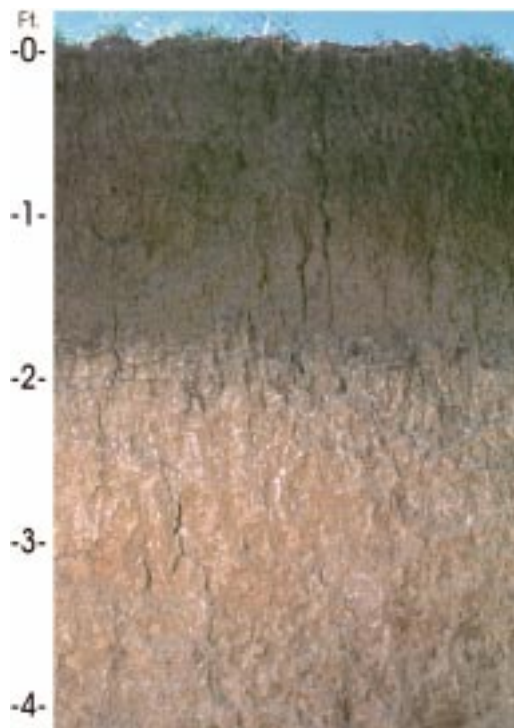
³ A portion of this definition is taken from Brundtland Report: World Commission on Environment and Development (WCED). *Our common future*. Oxford: Oxford University Press, 1987 p. 43.

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 (CO₂), Methane (CH₄), Nitrous Oxide (N₂O), and Fluorinated Gases such as hydrofluorocarbons or perfluorocarbons which are usually emitted from a variety of industrial processes.</i>
Groundwater Recharge	<i>Water that infiltrates the land surface and percolates downward to the underlying groundwater system.</i>
Health Impact Assessment	<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 population⁵</i>
High Quality Agricultural Land	<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>
Key Habitat	<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>
Level of service standards	<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>
Light Pollution	<i>The adverse effect of artificial light including sky glow, glare, light trespass, light clutter, decreased visibility at night, and energy waste.</i>
Light Trespass	<i>When light is directed outside of the given property.</i>
Native Prairies	<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>
Open Space Area	<i>An area which provide visual & psychological relief from the built environment; public access via trails & walkways</i>

⁵ <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.

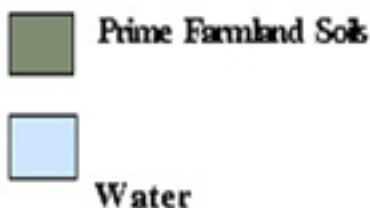
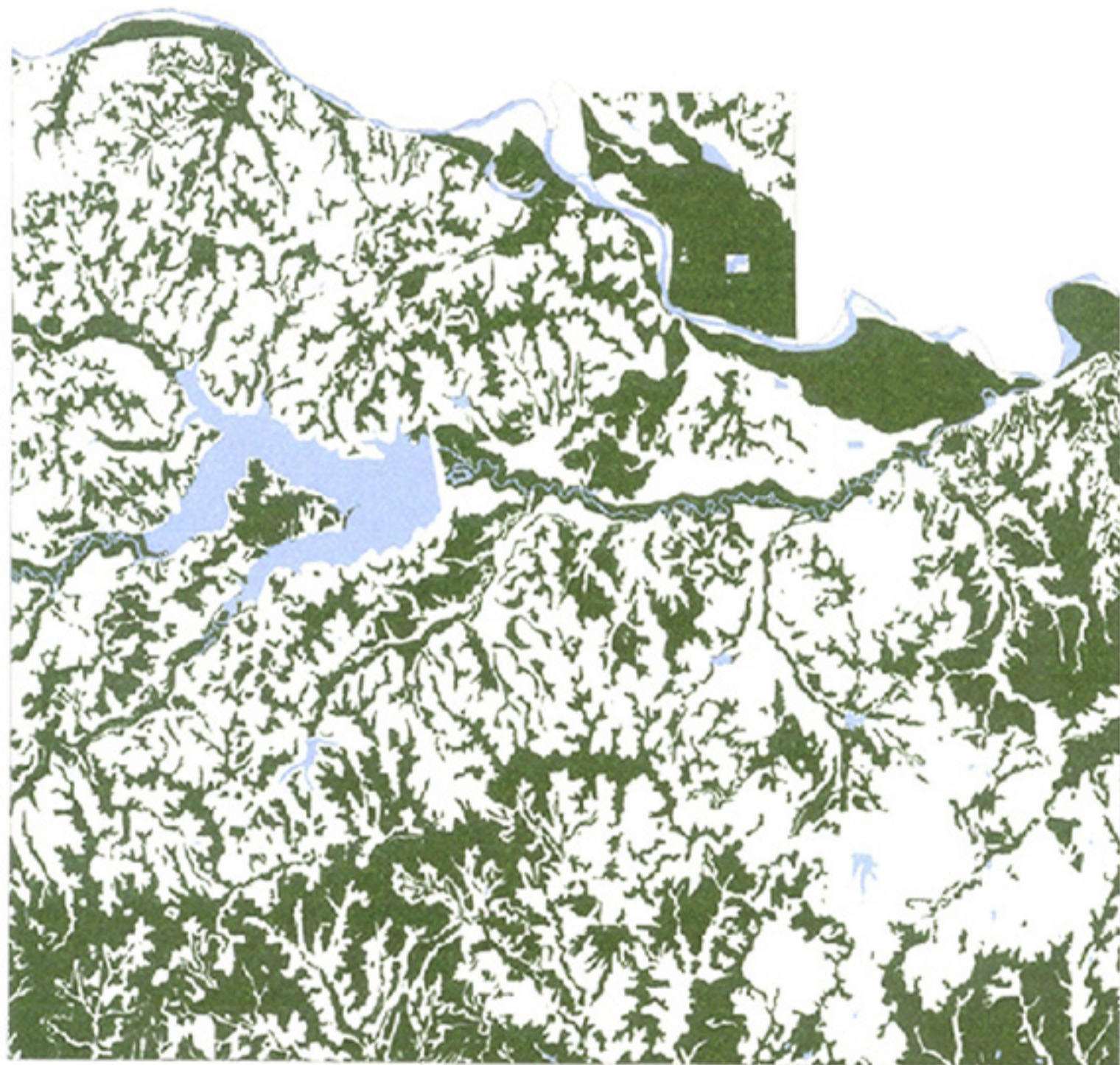


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DOUGLAS COUNTY, KANSAS

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