September 21, 2008

Brad Finkeldei, Chairman
Members
Lawrence-Douglas County Planning Commission
City Hall
Lawrence, Kansas 66044

RE: **ITEM NO. 9**: AMENDMENTS TO DEVELOPMENT CODE ON ENVIRONMENTALLY SENSITIVE AREAS

Dear Chairman Finkeldei and Planning Commissioners:

We consider the modifications to the original provisions for protection of environmentally sensitive areas to be unfortunate and hope that the City Commission will not adopt these revisions. We believe that what seemed to be a problem with this section of the Code arose when the interpretation of the original provisions ignored section Section 20-1101(d)(3)(iii) which reads as follows:

(iii) **Other**
Where the following types of lands are included in a proposed development and will not be dedicated to the City or included in private Open Space, the development plan shall be arranged so that every proposed Lot has a Building Envelope meeting the other design standards of this Code without encroaching on the designated sensitive lands:

This section provided for designing a development around the sensitive land features without completely obliterating them. *It didn't preclude also including some of the land features in dedicated public or private open space in addition.*

The proposed revisions to the Planned Development section repeats this same error and makes it worse, in that the minimum amount of sensitive land that is required to be preserved is only ten percent (10%). This defeats the reason for utilizing the Planned Development section in the first place; that is, to vary the lot sizes, their placement, and other requirements of a development to accommodate difficult terrain and environmentally sensitive land. The proposed provisions of the Planned Development are less restrictive than the new Section 20-1109, itself, which requires preserving up to 30% environmentally sensitive land.

We hope that you will reconsider these changes to the Section on Planned Development regarding the minimum amount of sensitive land features required to be preserved—only 10%—and at a minimum increase the amount to the 30% required by Section 20-1109.

Sincerely yours,

Milton Scott
Vice President

Paula Schumacher
Land Use Committee
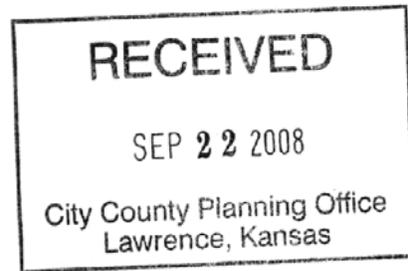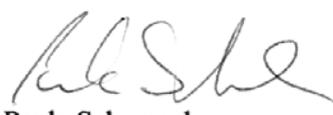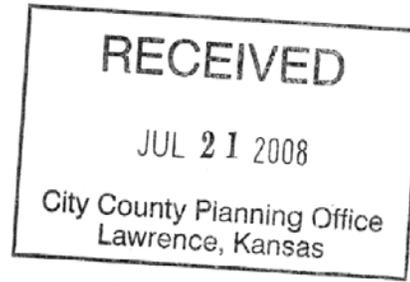
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League of Women Voters of Lawrence-Douglas County

P.O. Box 1072, Lawrence, Kansas 66044

July 20, 2008

Brad Finkeldei, Chairman
Members
Lawrence-Douglas County Planning Commission
City Hall
Lawrence, Kansas 66044

RE: ITEM NO.18, REVISIONS TO THE TEXT AMENDMENT FOR PROTECTION OF
     ENVIRONMENTALLY SENSITIVE AREAS, [new] SECTION 20-1109, DEVELOPMENT CODE

Dear Chairman Finkeldei and Planning Commissioners:

We appreciate the study and effort that have gone into these revisions. However, there remain some concerns that we very much hope can be resolved. Please see the enclosed copy of our annotations on the new revision of this code.

We object to the arbitrary limit of preserving only 30% of each tract except where sensitive features are listed as "critical." For example, if half of a tract is sensitive land, it seems reasonable if the remainder can be developed. The balance between the broad needs of the community and public welfare, including a long-term view of environmental need, must be considered as well as the needs of individuals. As Horizon 2020 states:

> Page 1-3 General Goal"...It is the goal of the planning process to achieve a maximum of individual freedom, *but public welfare must prevail."* [emphasis added].

In fact, it could be interpreted, because the language is not clear to us, that only 30% of the site of each sensitive feature need be saved rather than "30% of each ownership tract." We hope that will be corrected. For other comments, please see the annotated copy.

We hope that the city and county will seriously consider adopting Transferable Development Rights or some similar program to enable our land system to better protect both the land and the rights of farmers and owners of environmentally sensitive lands. The establishment of a minimum arbitrary amount of such land to be preserved only partially accommodates the limits and constraints of such lands.

Thank you for considering these comments.

Sincerely yours,

Carrie Lindsey
President

Alan Black, Chairman
Land Use Committee

Attachment

Section 20-1109 Protection Standards for Environmentally Sensitive Areas

(a) Purpose

The Environmentally Sensitive Area Standards are intended to protect ~~and, where possible, enhance the natural environment of~~ **sensitive natural and historic features of** the City of Lawrence ~~while recognizing the need for urban development~~ **as the City meets its urban development goals**.

These standards are intended to provide flexibility in the design of developments on lands with environmentally sensitive areas in order to use land efficiently and to preserve environmentally sensitive areas ~~as open space amenities~~. **Environmentally sensitive ~~natural~~ areas left in their natural state provide many benefits to the community including flood control, erosion control, water filtration, storm water runoff areas, passive recreation, wildlife protection, etc. Recognizing and protecting these benefits decreases the City's losses and improves the quality of life.**

Thank you.

These standards are intended to allow modifications of the requirements of the base zoning district and subdivision regulations. During the review process, the specific circumstances surrounding each application, such as the types and amounts of sensitive features that are present; special constraints to the development such as being in an infill location; and the need for the extension of public utilities or infrastructure will be considered. The Environmentally Sensitive Area standards will be applied in an effort to achieve development solutions that best promote the spirit, intent and purpose of protecting environmentally sensitive lands.

(b) Objectives

The objectives of these standards are:

(1) To identify and prioritize environmentally sensitive areas during the initial stages of the development review process.

(2) To establish levels of protection for environmentally sensitive features which vary with the priority ranking of each feature or combination of features.

(3) To aid developers in the creation of plans so that negative impacts to the environmentally sensitive areas are avoided or minimized to the greatest extent possible.

(4) To coordinate sensitive areas protection with other City environmental programs such as the Floodplain Management Regulations, and the City Stormwater Ordinance.

(5) To encourage the use of innovative and flexible development techniques and to provide flexibility in the planning process when needed to balance environmental and economic goals.

(6) To establish levels of protection for existing sensitive areas and institute requirements for the restoration of sensitive areas found to be prematurely destroyed or altered.

(c) Applicability of Environmental Design Standards

The provisions of this Article regarding environmental protection for sensitive lands shall apply to all construction and development activity in all zoning districts except as expressly exempted in this section.

If a proposed development, as specified in this section, contains any of the environmentally sensitive features described below the environmentally sensitive design standards and guidelines shall apply. Where disagreements occur regarding the presence or amount of environmentally sensitive features contained on a property, the Planning **Director's determination on the site plan may be appealed to the City Commission.** ~~Commission shall determine compliance with this Article based upon the submitted evidence of staff, and/or the applicant. Appeals from the Planning Commission determination shall be made to the City Commission~~.

Environmentally Sensitive Features include the following:

There is a Valley Channel zoning district for certain areas in the county that needs to be followed, also. Is this considered a part of the "Regulatory Floodplain?" It should be.

(1)   Regulatory Floodplain:
  (i)   Regulatory Floodway, designated on the FEMA Flood Insurance Rate Map for Douglas County.
  (ii) Regulatory Floodway Fringe, designated on the FEMA Flood Insurance Rate Map for Douglas County.

(2)   **Wetlands, including** jurisdictional wetlands as ~~approved~~ **determined** and regulated by the U.S. Army Corps of Engineers.

(3)   Streams, shown on the United States Geological Survey Quadrangle (USGS Quad) Maps as blue solid or dashed lines, and their corridors.

(4)   Woodland Areas: Any tract of land containing one (1) acre or more which is shown as 'woodland' or 'forest' on the City GIS Woodland Baseline Map.

There are some native trees such as redbud and flowering plum that do not live much beyond that size. The younger trees of this species, as one example also need protections.

(5)   Individually Significant Trees: an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees. Significant trees may be of any species listed in the Northeast Kansas Preferred Species List (available at the Planning Office) **or any native species. A list of native trees (including both indigenous and naturalized species) is available at the Planning Office.** ~~any of the following native species: walnut, red maple, shagbark hickory, black cherry, black locust, American elm, hackberry, osage orange, white/red mulberry, chinkapin oak, bur oak, white oak, black oak, honeylocust, cottonwood, sycamore, red cedar, black gum, or yellow poplar~~.

(6)   Prominent Geologic Features with Rocky Outcroppings: A rocky protrusion of 50% or more exposed rock having greater than a 3:1 slope, a minimum height of 20′ above the surrounding grade and covering an area of 1 or more acres.

(7)   Archaeological and Historic Sites listed on local, state, or federal registers **or have an application on file for listing which was submitted prior to the sensitive area site plan.**

(8)   Prairie remnant of one (1) acre or larger: Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties and containing Prairie Remnant of one (1) acre or larger. Prairie areas will be determined by the Kansas Biological Survey, **or a consulting firm with local expertise in these habitats,** as areas that have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies). **A list of approved consulting firms for prairie determination is available in the Planning Office.**

(9)   Slopes:

(i) Steep Slopes: A slope of fifteen percent (15%) but less than twenty five percent (25%).

(ii) Critical Slopes: A slope of twenty five percent (25%) but less than forty percent (40%)

Many communities consider that slopes over 20% should be left undisturbed.

These should not allow a 15% exception. ➡ (iii) Protected slopes: Any slope of forty percent (40%) or steeper.

The presence of environmentally sensitive features shall be determined from an examination of the site and the following resources:

(1)   FEMA Flood Insurance Rate Map for Douglas County
(2)   USGS Quad Maps

➡ (3)   City GIS Woodland Baseline Map *Please create better maps than the previous samples.*

(4)   US Fish and Wildlife Service **National** Wetland **Inventory** Maps

This is better than depending on only one map. (5)   Douglas County Natural Areas Inventory Map
(6)   City GIS Map

(d)   Determination of Development Land Area

In determining whether a proposed development contains sensitive lands, all contiguous lands under the same ownership or control shall be considered. Lands owned or controlled by a partnership, trust or corporation shall be considered along with lands owned directly by the applicant and lands under option to the applicant or a partnership, trust or corporation under the effective control of the applicant.

(e)   Exemptions.

The following activities are exempt from the requirements of this section:

(1)   Extension of public utilities and infrastructure: A written request for exemption must be submitted to the Planning Director. Development activity may occur only after the Planning Director has determined that the amount of damage to the sensitive features is minimized either through construction methods or location and has provided written approval of the exemption request.

(2)   Existing Single-Dwelling and Duplex Residences: Normal maintenance/expansion of single-family or duplex residences, including exterior remodeling, reconstruction, construction, or replacement of single-family or duplex residences and accessory structures.

(3)   Existing Subdivisions for Single-Dwelling and Duplex Residences: Construction of new single-family or duplex residences in platted subdivisions that are in existence, or for which applications for plats have been submitted, prior to the effective **DATE OF THIS TEXT AMENDMENT**.

(f)   Woodland Management Activities. Practices associated with 'timber management standards' as defined by the International Society of Arboriculture, or its successor, or existing tree farming operations, such as Christmas tree farming, fruit, or nut production and tree nurseries, during such time as the land is used for tree farming operations are exempt.

(g)   Sensitive Areas Site Plan

Development activity on lands with environmentally sensitive areas as set forth in Section **XX(4)** shall require submission and approval of a Sensitive Areas Site Plan.

A Sensitive Areas Site Plan must be approved by the Planning Director prior to woodland clearing, grading or any development activity on lands that contain environmentally sensitive features specified in **Section XX(4)**. Appeals from the Planning Director's determination on the Sensitive Areas Site Plan shall be made to the City Commission. An appeal must be filed within ~~30~~ **9** days of the Planning ~~Commission~~'s **Director's** determination.

The Sensitive Areas Site Plan ~~can~~ may be submitted concurrent with the submittal of any other site plan or development plan; however, revisions to the development plans may be necessary in order to comply with the approved Sensitive Areas Site Plan. To avoid revisions, prior submittal of the Sensitive Areas Site Plan is recommended with a concept development plan. The Sensitive Areas Site Plan will be incorporated with other development or site plans for the property. The designated protected areas must be clearly shown on all associated development plans, including public improvement plans.

(h) Development Activity Which Occurs Without Approval of a Sensitive Areas Site Plan

If clearing, grading or other development activity occurs on lands determined to contain environmentally sensitive features as of **the effective date of this text amendment** without prior approval of a Sensitive Areas Site Plan, the sensitive areas and features will be determined for the property using the best available data (aerials, surveys, baseline maps, etc.) and the property shall be made whole to the extent required in Section **X(10)** under the following guidelines prior to building permits being granted:

(1) <u>Removal of trees from woodland areas</u>: If woodland areas are altered by human activity such as clearcutting or removal of trees to the degree that the property no longer meets the definition of 'woodland', the property owner shall protect the area that would have been required to be protected with a Sensitive Areas Site Plan. The property owner shall replace the trees at a ratio of 1 tree per every 200 sq. ft. of prior woodland area to the extent required in Section **X(10).** Replacement trees shall consist of a minimum of 6 species which may be native or selected from the Northeast Kansas Preferred Species Tree List. Trees which are considered native are listed on the (This requirement is in addition to any street tree, buffering, or other landscaping that is required by the Development Code.)

> The trees should be replaced that have been removed. To allow a developer to eliminate all except 30% does not allow evaluation of what was destroyed. It is an invitation to do this.

(2) <u>Damage to Stream Corridor</u>: If the stream or stream corridor is altered by human activity, such as the removal of trees or vegetation or in anyway altering the channel, the property owner shall reestablish the channel per the approval of the City Stormwater Engineer and replace the trees at a ratio of 1 tree per every 200 sq. ft. of area of stream corridor and shall reestablish ground cover per the approval of the City Stormwater Engineer.

(3) <u>Destruction of remnant prairie</u>. If an area that has been determined by the KS Biological Survey**, or approved consulting firm,** as having remnant prairies is plowed or otherwise destroyed, the area of the former remnant prairie, as defined by the KS Biological Survey **or approved consulting firm** must be preserved as open space and replanted with prairie vegetation to the extent required in Section X(10). **At least 75% of the native species that were likely at the site, as determined by the Kansas Biological Survey or consulting firm, will be replanted. The replanted plants will be maintained and at least 50% of**

Map as containing remnant prairies these areas must be delineated and noted on the Sensitive Areas Site Plan, if confirmed by the Kansas Biological Survey **or consulting agency with local expertise. A list of approved consulting agencies is maintained in the Planning Office**.

Prairie remnants associated with other sensitive features shall be treated as environmental assets, and shall be considered no-build areas to the extent possible, and used for buffers, filter strips along waterways and/or neighborhood open space.

h) Steep slopes, slopes with grades of 15% or higher
A Sensitive Areas Site Plan is required prior to any development activity on property containing slopes with grades greater than 15%.

A grading plan is required in addition to a Sensitive Areas Site Plan prior to any development activity on property containing slopes with grades between 25% and 40%. Disturbance of slopes with 25% to 40% grades requires approval of the City Stormwater Engineer.

Slopes greater than 40% grade shall not be graded and shall remain in the existing state, except that natural vegetation may be supplemented by other plant material. A buffer will be required around any slopes of 40% grade or more. Two feet (2′) of buffer will be provided for each foot of vertical rise of the slope up to a maximum buffer of fifty feet (50′). No development activity, including removal of trees and other vegetation, shall be allowed within the buffer **with the exception of the removal of noxious or poisonous weeds**.

i) A site summary table shall be provided which includes the total site area, the area of each environmentally sensitive area delineated on the site plan, and the percentage of the total site which is included in each area. Areas with overlapping environmentally sensitive features shall be listed along with the percentage of the total.

(j) Ranking and Required Protection of Environmentally Sensitive Features
Protection of certain environmentally sensitive features in their natural state is more critical than others. The following priority scheme will assist in the determination of environmentally sensitive areas in which protection is 'critical', those in which protection is important and ~~should~~ **shall** be achieved to the greatest extent possible and those for which protection is desirable.

The total amount of the site which shall be required to be protected depends on the type and amount of features present.

You should add "of each ownership tract"

All protected areas together shall not be required to exceed 30% of gross land area unless critical sensitive areas exist. Critical sensitive areas must be protected in their entirety. 10% of the designated sensitive area shall serve, and may be improved, as an open space amenity to the development as passive or active recreation.

We object to the arbitrary limit of only 30% of sensitive land that needs to be protected within each ownership tract, expecially when forested slopes are involved. These usually are in combination but may not qualify for protection even though they are ecologically and environmentally valuable. There needs to be some other considerations. The county cluster developments were originally intended to protect environmentally sensitive lands and required at least 40% of each tract to be preserved. At the very least this should also be the case.

When determining which features ~~should~~ **shall** be protected, protection will be required in the following ranking order:

(1) Critical Sensitive Areas. Areas containing the following critical sensitive features: regulatory floodway, stream corridors, jurisdictional wetlands, slopes with greater than 40% grade, or archaeological and historic sites. Protection of 100% of these sensitive features is required regardless of the percentage of the total site area which is included.

(2) Important Sensitive Areas. Areas containing the following critical sensitive features: **non-jurisdictional wetlands,** slopes between 25% and 40% grade, regulatory floodway fringe, native prairie remnants, **woodlands that are contiguous with other off-site woodland areas that may function as wildlife corridors,** and areas with two or more environmentally sensitive features, other than those listed as 'critical sensitive features', occurring together. Environmentally Sensitive Features or Areas that occur together are of higher priority than any one feature occurring singularly. The priority increases with the number of environmentally sensitive features occurring together. Protection of areas containing these features is required to the maximum extent noted above.

[Margin note in red:] This isn't clear. Please cite section you mean. J or J(1).

(3) Desirable Sensitive Areas. Areas with environmentally sensitive features, other than those listed as critical or important sensitive areas, occurring singularly. In addition, woodland areas that are part of a larger continuous wooded area that may extend off site are of higher priority than woodland areas that are isolated. Protection of areas containing these features is required to the maximum extent noted above.

Environmentally Sensitive Features shown on the site plan are prioritized for protection by the ranking scheme above in combination with an evaluation of the development proposal, the surrounding area (to determine connectivity) and the mix of sensitive features present on the site.

(k) DEVELOPMENT OPTIONS
The following development options are available for properties containing environmentally sensitive lands:

(1) May develop as a Planned Development, per standards in Section 20-701, to protect the greatest amount of environmentally sensitive features possible while accommodating development. The minimum amount of natural open space to be preserved will be determined after a review of the Sensitive Areas Site Plan. Planned Developments provide the following additional flexibility: reduced lot sizes, increase in maximum net residential density by up to 25%, reduction in minimum setback standards of the base district with some restrictions, increase in the height of the buildings, and reduction in the number of off-street parking spaces required.

(2) May develop as a Cluster Development per standards listed in Section 20-702. If environmentally sensitive features are present, a Cluster Development may exceed the 35 lots permitted in Section 20-702(c)(1). Cluster Development allows the property to develop at the same maximum density as the base

The following are definitions to be added to general glossary

Clearcutting. The removal of ~~most or~~ all trees on a site, or the removal of more than one-half (0.5) acre of trees in an area determined to be sensitive by this section, during a single timber harvesting operation or within a three (3) year period.

Environmentally Sensitive Areas – Areas containing natural features and/or natural resources which include regulatory floodplain, jurisdictional wetlands, streams and their corridors, woodland areas, individually significant trees, prominent geologic features with rocky outcroppings, archaeological and historic sites, prairie remnants and steep slopes.

Individually Significant Tree – A significant tree is an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees. Significant trees may be of any species listed in the Northeast Kansas Preferred Species List (available at the Planning Office) or any ~~of the following~~ native species: ~~Walnut, Red Maple, Shagbark Hickory, Black Cherry, Black Locust, American Elm, Chinese Elm, Hackberry, Osage Orange, White/Red Mulberry, Chinkapin Oak, Bur Oak, White Oak, Black Oak, Honey Locust, Cottonwood, Sycamore, Red Cedar, Black Gum, or Yellow Poplar.~~   **A list of native species, including both indigenous and naturalized species, is available at the Planning Office.**

Some trees such as redbuds, crabapples, and wild plum do not live much beyond that size, if they even get to be that size.

Jurisdictional Wetland. Jurisdictional wetlands are wetlands that are subject to Section 404 of the Clean Water Act. The Army Corps of Engineers (CE) and Environmental Protection Agency (EPA) are responsible for making jurisdictional determinations of wetlands regulated under Section 404 of the Clean Water Act. Under Section 404, the Secretary of the Army, acting through the Chief of Engineers, is authorized to issue permits for the discharge of dredged or fill materials into the waters of the United States, including wetlands, with program oversight by EPA.

Open Space – An area of land or water, either landscaped or essentially unimproved, which is used to meet human recreational or spatial needs, or for resource protection.   Open space areas may or may not be improved but can include playfields, trails, greenbelts/greenways, community gardens, farmed areas, buffers between land uses of differing intensities, areas within community or neighborhood parks and other environmentally sensitive areas.

Prairie Remnants – Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties and containing Prairie Remnant of one (1) acre or larger: Prairie areas that have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies)

Stream ~~– A stream is a natural body of flowing water, whether constant or intermittent, that begins at headwaters and gathers water from run-off, rain, snow melt, groundwater discharge or from underground springs. Streams hold great importance regardless of size or flow. Streams provide a variety of aesthetic and ecological values and are important wildlife habitats. All streams shown in blue dashed or solid lines on the USGS Quad maps are included in this listing.~~

May 18, 2008

Grant Eichhorn, Chairman
Members
Lawrence-Douglas County Planning Commission
City Hall
Lawrence, Kansas 66044
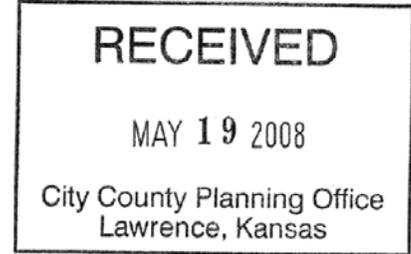
Re: ITEM NO. 9: TEXT AMENDMENT TO CHAPTER 20, ARTICLE 11 DEVELOPMENT CODE

Dear Chairman Eichhorn and Planning Commissioners:

     One of the important provisions of our new Land Development Code is **Section 20-1101(d)**, Implementation of Sensitive Lands Standards. For various reasons, one of which we believe was its misinterpretation, it is proposed to be replaced by a totally new draft code, **Section 20-1109.** We acknowledge one improvement: the draft text amendment also includes all zoning districts rather than just residential land use. However, in reviewing the draft text amendment, TA-12-27-07, we found many problems with this proposed change. In this letter and attachments, we hope to illustrate some of the deficiencies of this draft text amendment that need correction. We ask that the current proposed draft be rewritten to correct the many inconsistencies, inapplicable and unreasonable definitions, insufficient protection standards, and inappropriate process.

     Sensitive lands have been identified as such because of their vital environmental functions and in many cases because of the hazards to human life or property that occur when they are altered. Their use as an amenity or as a buffer between uses, although important, is incidental to these other functions. Therefore, any environmental code should be written to achieve all of these purposes, while also acknowledging the rights of property owners; however, as the General Goal of Horizon 2020 states, "the public welfare must prevail." The public has a right to protect itself from the loss of the irreplaceable and essential natural functions of sensitive lands. The following are some of our reasons for asking that you rewrite this proposed text amendment.

1. The purpose of the code has to be appropriate. The stated purpose here is much too limited.
     The functions and reasons for preserving sensitive lands goes far beyond that of the statement, "to preserve environmentally sensitive areas as open space amenities" under **Section 1109(a) Purpose** and these functions and reasons must be written into the code. To give an example of what we recommend is a description of some of the crucial functions of woodlands, both young and mature: Woodlands absorb atmospheric CO2, replenish atmospheric oxygen and absorb air pollution, maintain the hydrological cycle by adding moisture to the atmosphere and inducing rain, protect watersheds by preventing erosion, help soil to absorb rainwater and replenish ground water, reduce runoff, and protect groundwater from pollution, cool the atmosphere and reduce energy use, and provide habitat for wildlife. These, and more, are critical functions that go well beyond simply providing open space as amenities and buffers. The same type of functional description as illustrated for woodlands should be applied to all of the types of sensitive lands and included in this section of the Land Development Code (LDC).

2. The purpose has to be achievable by the other provisions of the code or text amendment.
     (a) The types of sensitive land should be defined in a way that reflects the actual land forms and vegetation of sensitive lands in Douglas County and Lawrence. The attached material illustrates examples.
     (b) The protection standards should be written to preserve the function of each type of sensitive land, and one of these standards is to define an appropriate amount of minimum area for each type to be included and protected. The text amendment defines a general minimum amount of protected land to be 18% for each tract. Compared to other communities having sensitive land protection standards this is grossly deficient. It also eliminates the environmental benefits.
     (c) The enforcement and penalties should be expensive enough and/or severe enough to make it worthwhile to conform to the regulations. Where mitigation is allowed, this should reflect or exceed the actual loss of the sensitive land that has been altered or removed. The proposed language is unclear.

3. The available information and process has to allow the developer protection from investing in the planning of a development that would not be practically achievable, either economically or physically.

(a) The code should be fair to property owners and developers by allowing them to know from the very beginning of the development process what the limitations on the land are going to be and what will be the requirements in the process. Therefore, the Sensitive Lands Site Plan should be presented to the City Planning Department by the developer before any other investment or plan has been made by the property owner or developer.

(b) The actual physical information needed for a Sensitive Lands Site Plan in graphic and technical description for any specific site should be available to the developer through the City Planning Department. As one example, the information on width of stream corridors to be preserved should be known initially and not determined after a developer presents a development plan.

A developer should design his development around protecting the sensitive land features rather than adapting the sensitive land to his development. If his expectations are too high, he should not be encouraged to proceed.

We again ask that you not accept this text amendment TA-12-27-07 as it is currently written, and correct its deficiencies before including it in the Land Development Code.

Thank you.

Sincerely yours,
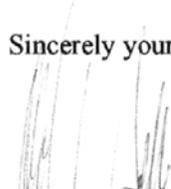
Milton Scott,
Board Representative

Alan Black, Chairman
Land Use Committee

ATTACHMENTS

OUTLINE OF COMMENTS AND EXCERPTS FROM THE SENSITIVE LANDS DRAFT TEXT
AMENDMENT, SECTION 20-1109
May 19, 2008

[Please note that this outline is not yet complete. The excerpts and comments have been included in order as they appear in the text amendment and identified as they relate to our letter.]

1. *The purpose of the code has to be appropriate.*

"...in order to use land efficiently and to preserve environmentally sensitive areas as open space amenities."
> COMMENT: The term "amenities" applies to human pleasure rather than to ecological or environmental necessity. See comment at bottom of page regarding woodlands:
>> The environmental value of woodlands, as a sensitive area needs to be expanded to include acknowledgment of essential environmental functions, such as being a CO_2 sink, absorbing air pollution and replenishing atmospheric oxygen, maintaining the hydrological cycle (adding moisture to the atmosphere and inducing rain), protecting watersheds (preventing erosion, helping soil absorb rainwater and replenish ground water, reducing runoff, protecting groundwater from pollution), cooling the atmosphere and reducing energy use, providing habitat for other plants and animals. These, and more, are critical functions well beyond simply providing open space amenities and buffers.

2. *The purpose has to be achievable by the other provisions of the code or text amendment.*

"(c) Modifications to the Sensitive Area Design Standards and Guidelines"
[permitted are] "...a reduction in the area required to be preserved, or a change in the hierarchy ranking of protected features, if all the following criteria are met:
> COMMENT: The standards already are so minimal that they should not be allowed to be modified (meaning reduced). The circumstances need to be explained more clearly in terms of standards. Sensitive areas have essential environmental functions and not preserving them may have very adverse effects on the community. Simply reducing the size could cause hazards. Some of these sensitive features should not be destroyed or built on at all. Most of the codes we have reviewed have given a list of features that must be preserved intact, and their standards for protection go well beyond what is listed here.

"(d) Applicability of Environmental Design Standards
"Environmentally Sensitive Features include the following:
> (1) Regulatory Floodplain:
>> (i) Regulatory Floodway, designated on the FEMA Flood Insurance Rate Map for Douglas County.
>> (ii) Regulatory Floodway Fringe, designated on the FEMA Flood Insurance Rate Map for Douglas County."
> COMMENT: The city and county need the option to add floodplain designations to areas that obviously extend beyond the minimal delineations of the FEMA limits and potentially would cause significant hazard, and property damage if altered or encroached upon. This should also include important drainageways (streams) that aren't on the USGS maps (see next page). Please add before "Douglas County" the words "Lawrence and" and add before "Regulatory Floodway the words "100-year flood or..."

"(4) Woodland Areas: Any tract of land with a contiguous wooded area not less than two (2) acres, as measured by the tree canopy, and containing not less than one hundred (100) trees per acre that are two inches (2") in diameter or greater 36" above the ground.."
> COMMENT: The density description of number of trees per acre must be modified because it would not apply to most woodlands in Douglas County and would completely exclude woodlands containing larger sizes of trees. As trees increase in size certain woodlands thin as normal selection excludes certain types of growth.

"(5) Individually Significant Trees: an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees."

> COMMENT: Protecting individually significant trees should be given wider range in size. The significance should depend partly on the tree species.

"(7) Archaeological and Historic Sites listed on local, state, or federal registers."

> COMMENT: This has been changed to exclude historic sites not registered. This should be changed back to also include other archeological and historic sites because many eligible for registration would otherwise be lost.

"(e) Determination of Development Land Area

In determining whether a proposed development contains sensitive lands, all contiguous lands under the same ownership or control shall be considered. Lands owned or controlled by a partnership, trust or corporation shall be considered along with lands owned directly by the applicant and lands under option to the applicant or a partnership, trust or corporation under the effective control of the applicant."

> COMMENT: There should be some provision for protecting environmental features that extend over many ownerships. For example, if a woodland is owned by three people having one acre each, but together the tracts would qualify for woodland, would they all be able to obliterate the woods? A developer could bulldoze the tract and then consolidate the land as one ownership entity. This is partly accommodated in Section (k)(2) paragraph 2.

3. The available information and process has to allow the developer protection from investing in the planning of a development that would not be practically achievable, either economically or physically.

"(h) Sensitive Areas Site Plan

"Development on lands with environmentally sensitive areas as set forth in Section **XX(4)** shall require submission of a Sensitive Areas Site Plan. A Sensitive Areas Site Plan must be submitted to, and approved by the Planning Commission prior to woodland clearing, grading or any development activity on lands that contain environmentally sensitive features specified in **Section XX(4)**. The Sensitive Areas Site Plan can be submitted concurrent with the submittal of any other site plan or development plan. The Sensitive Areas Site Plan will be incorporated with other development or site plans for the property..."

> COMMENT: PLEASE ADD: "the Planning Director prior to any development application including a concept plan, rezonng application, preliminary plat, or development plan... Cross out: ~~"The Sensitive Areas Site Plan can be submitted concurrent with the submittal of any other site plan or development plan. The Sensitive Areas Site Plan will be incorporated with other development or site plans for the property."~~ Please change the sentence to read: "The Sensitive Areas Site Plan will be incorporated withother approved development or site plans for the property."

> EXPLANATION: The most critical issue in the procedure is the stage at which the Sensitive Areas Site Plan is submitted. It must be submitted prior to any investment in time or money by the developer so that the developer can plan his development in a way that allows protection of the sensitive lands; i.e., the available information and process must allow the developer to plan his development to protect the sensitive features rather than having to change the land to conform to his development.

2. The purpose has to be achievable by the other provisions of the code or text amendment.

(i) Development Activity Which Occurs Without Approval of a Sensitive Areas Site Plan

"If clearing, grading or other development activity occurs without approval of a Sensitive Areas Site Plan, the sensitive areas and features will be determined for the property using the best available data (aerials, surveys, etc.) and the property shall be made whole to the extent required in Section X(10) under the following guidelines prior to building permits being granted:"

"(1) Removal of trees from woodland areas: If woodland areas are altered by human activity such as clearcutting or removal of trees to the degree that the property no longer meets the definition of 'woodland', the property owner shall protect the area that would have been required to be protected and replace the trees at a ratio of 1 tree per every 200 sq. ft. of prior woodland area to the extent required in Section X(10). (This requirement is in addition to any street tree, buffering, orother landscaping that is required by the Development Code.)

> COMMENT: Because the parameters of the definition of "woodlands" are so limited and do not apply to most of the woodlands in Douglas County, this restriction on tree removal is inapplicable. In addition, because the woodlands are only "protected" and not in the "preserved" category, if they qualify at all and they are eliminated completely, they would have to be replaced on only 20% of a tract over two acres. Any wooded tract, assuming its density is 100 trees per acre, but under two acres would not come under the Sensitive Lands section.

"(j) Sensitive Areas Site Plan Procedure
A Sensitive Areas Site Plan shall be submitted and approved prior to any development activity, including vegetation removal or grading. The Sensitive Areas Site Plan may be submitted prior to, or concurrent with, another development application, i.e. plat, site plan, rezoning, etc. The Sensitive Areas Site Plan shall delineate and note all sensitive areas and designate protected sensitive areas and associated buffers."

> COMMENT: A development should be designed around protecting the sensitive areas rather than the reverse. The developer needs to know what areas he can develop before he designs his development. Therefore, the Sensitive Areas Site Plan should be submitted before any of the other requirements for an application are submitted including a concept plan. The second sentence should read, "The Sensitive Areas Site Plan ~~may~~ **shall** be submitted prior to, ~~or concurrent with, another~~ **any other** development application, i.e. plat, site plan, rezoning, etc.

"C. Streams and stream corridors. Streams that are shown in solid or dashed blue lines on the USGS Quad Map shall be included with corridors as established by the City Stormwater Engineer.*2"

> COMMENT: There are substantial intermittent streams that are not identified on the USGS Quad map. These drainageways should also be preserved. They are major in terms of stormwater accommodation, should remain open, and their corridors should also be protected. An example are the streams that flow through the new wilderness park in Section 21 not shown on the USGA map.
>
> Some communities measure stream corridors much wider than here in order not to constrain the natural meandering that occurs and protect the banks from eroding. In some communities the corridor with its buffer is defined as 100 feet from the bank on both sides and trees and natural vegetation cannot be removed except when it blocks the channel.

"(J) The amount of stream corridor required may be reduced by the City Stormwater Engineer if requiring the full stream corridor buffer would preclude reasonable use of the property, and enhanced vegetative cover will be provided in any remaining buffer area to the extent possible. A waiver request must be provided in writing to the City Stormwater Engineer which explains how the provision of the full required stream corridor precludes reasonable use of the property."

> COMMENT: This is the reverse of what it should be. The emphasis should be on protection of the stream and justification that it will be properly stabilized. The stream should take precedence over development. This is contrary to the Comprehensive Plan. (This is why a developer should be made aware of the constraints of the land on his potential development before he invests in planning to develop it.)

"d) Woodland Areas. Any property containing a woodland area must submit a Sensitive Areas Site Plan prior to woodland clearing or any development activity. The following requirements apply to development on properties with woodland areas: The woodland area required to be retained shall be delineated to include a buffer area by measuring fifty feet (50') outward from the trunks of trees intended to be preserved."

> COMMENT: Please note again that the way this code reads is that any woods less than two acres can be bulldozed. Given woods more than two acres, thus qualified for protection, any portion of that which is more than 18% of the development tract could also be bulldozed, actually leaving substantially less than the original two acres to be "preserved."

"To the extent possible, woodlands located on steep slopes and/orwithin 100 year floodplains should be given the highest retention priority."

> COMMENT: This should read: "To the extent possible, ~~W~~**w**oodlands located on steep slopes and/or within 100 year floodplains ~~should~~ **shall** be ~~given the highest retention priority~~ **preserved.**

"h) Steep slopes, slopes with grades of 15% or higher. Any property with slopes greater than 15% grade shall be required to submit a Sensitive Areas Site Plan...

"Any property with slopes of 40% grade or more shall be required to submit a Sensitive Areas Site Plan. Slopes greater than 40% grade shall not be graded and must remain in the existing state, except that natural vegetation may be supplemented by other plant material. A buffer will be required around any slopes of 40% grade or more. Two feet (2') of buffer will be provided for each foot of vertical rise of the slope up to a maximum buffer of fifty feet (50'). No development activity, including removal of trees and other vegetation, shall be allowed within the buffer.

> COMMENT: This standard is really too narrow. Some communities start protection from grading and the prohibition of defoliation at far lesser slopes.

"(k) Ranking and Required Protection of Environmentally Sensitive Features

Protection of certain environmentally sensitive features is more critical than others. The following priority scheme will assist in the determination of environmentally sensitive areas in which protection is 'critical', those in which protection is important and should be achieved to the greatest extent possible and those for which protection is desirable.

"All protected areas together shall not be required to exceed 20% of gross land area unless critical sensitive areas exist. Critical sensitive areas must be protected in their entirety. 10% of the protected area shall serve, and may be improved, as an open space amenity to the development as passive or active recreation.

> COMMENT: This implies that only the critical areas will be protected if they exist in combination with protected areas. At the very least, it should be stated that at least 20% of protected areas shall be preserved over and above that preserved as critical areas. We believe these standards are far less than needed.

"When determining which features should be protected, protection will be required in the following ranking order:

> COMMENT: Many sensitive lands are classified as such because they either are intrinsically valuable as historically natural areas such as Balwin Woods, have important environmental functions, or pose hazards as building sites such as floodplains and steep slopes. It doesn't make sense to designate a proportion of a sensitive land as buildable if it is equally sensitive when compared to what is required to be saved.

> Some codes do not allow floodplains or hazardous areas to be disturbed and require 50% to 80% of the other sensitive environmental features to be left intact.

> Please recognize that the critical areas listed as required to be 100% protected, by existing law must be protected, regardless.

PLEASE NOTE: This outline does not include a complete list of annotations. We will be submitting more information before Wednesday.

"Environmental Preservation:
This means adapting development to the capabilities of the land rather than adapting the
land to the requirements of the development." LWVL-DC

Woodland and its protective vegetation (on slopes and adjacent to streams as well as in general) has many more functions than mentioned here, such as erosion control, reduction of runoff, and recharging groundwater. See below.

The proposed text amendment is also consistent with the purpose of the Development Code which is listed in Section 20-104 as implementing the Comprehensive Plan in a manner which protects, enhances and promotes the health, safety, and general welfare of the citizens of Lawrence. The protection of environmentally sensitive areas will enhance and promote the health, safety, and general welfare of the citizens of Lawrence. Protection of environmentally sensitive areas serves to reduce hazards by limiting development in the regulatory floodplain, within stream corridors or on steep slopes; and enhances the general welfare by maintaining wooded areas which serve to moderate the micro-climate, provide windbreaks, and provide connected greenways for wildlife habitat and possible future pedestrian/bike pathways through the City.

The text amendment proposes deleting Section 20-1101(d) from the Development Code and replacing it with the language below as Section 20-1109:

Section 20-1109 Protection Standards for Environmentally Sensitive Areas
(a) Purpose
The Environmentally Sensitive Area Standards are intended to protect and, where possible, enhance the natural environment of the City of Lawrence while recognizing the need for urban development.

These standards are intended to provide flexibility in the design of developments on lands with environmentally sensitive areas in order to use land efficiently and to preserve environmentally sensitive areas as open space amenities. These standards are intended to allow modifications of the requirements of the base zoning district and subdivision regulations.   During the review process, the specific circumstances surrounding each application, such as the types and amounts of sensitive features that are present; special constraints to the development such as being in an infill location; and the need for the extension of public utilities or infrastructure will be considered. The Environmentally Sensitive Area standards will be applied in an effort to achieve development solutions that best promote the spirit, intent and purpose of protecting environmentally sensitive lands.

The term "amenities" applies to human pleasure rather than to ecological or environmental necessity. See comment at bottom of page regarding woodlands.

(b) Objectives
The objectives of these standards are:
(1) To identify and prioritize environmentally sensitive areas during the initial stages of the development review process.
(2) To establish levels of protection for environmentally sensitive features which vary with the priority ranking of each feature or combination of features.
(3) To aid developers in the creation of plans so that negative impacts to the environmentally sensitive areas are avoided or minimized to the greatest extent possible.
(4) To coordinate sensitive areas protection with other City environmental programs such as the Floodplain Management Regulations, and the City Stormwater Ordinance.
(5) To encourage the use of innovative and flexible development techniques and to provide flexibility in the planning process when needed to balance environmental and economic goals.

The environmental value of woodlands, as a sensitive area needs to be expanded to include acknowledgment of essential environmental functions, such as being a CO_2 sink, absorbing air pollution and replenishing atmospheric oxygen; maintaining the hydrologic cycle (adding moisture to the atmosphere and inducing rain); protecting watersheds (preventing erosion, helping soil absorb rainwater and replenish ground water, reducing runoff, protecting groundwater from pollution); cooling the atmosphere and reducing energy use; providing habitat for other plants and animals. These, and more, are critical functions well beyond simply providing open space amenities and buffers.

This needs to be explained. Sensitive areas have essential environmental functions and not preserving them may have very adverse effects on the community Simply reducing the size could cause hazards. Some of these sensitive features should not be destroyed or built on at all. Most of the codes we have reviewed have given a list of features that must be preserved intact, and their standards for protection go well beyond what is listed here.

(6) To establish levels of protection for existing sensitive lands and institute requirements for the reparation of lands found to be prematurely destroyed or altered.

(c) Modifications to the Sensitive Area Design Standards and Guidelines

The development standards and guidelines contained in this section are to be used as minimum requirements for evaluating development plans on lands containing environmentally sensitive areas. However, the standards and guidelines are not intended to restrict creativity or prohibit reasonable economic returns on developing property. An applicant may request modifications of the sensitive areas design standards and guidelines, such as, but not limited to, a reduction in the area required to be preserved, or a change in the hierarchy ranking of protected features, if all the following criteria are met:

(1) The modification will be in harmony with the purpose and intent of this section.

(2) The modification will generally enhance the sensitive areas site or development plan and will not have an adverse impact on its physical, visual or spatial characteristics.

(3) The modification shall not result in a configuration of lots or a street system which is impractical.

(4) The modification shall not threaten or diminish the public's health, safety or welfare.

(5) The modification shall not include or alter environmentally sensitive features for which protection is required, such as 'floodway' or 'jurisdictional wetlands'.

Modification requests will be reviewed by Planning Staff and presented to the Planning Commission. The Planning Commission shall make the determination on the modification request. Appeals of the Planning Commission's decision shall be made to the City Commission.

The standards already are so minimal that they should not be allowed to be modified (meaning reduced).

(d) Applicability of Environmental Design Standards

The provisions of this Article regarding environmental protection for sensitive lands shall apply to all construction and development activity in all zoning districts except as expressly exempted in this section.

If a proposed development, as specified in this section, contains any of the environmentally sensitive features described below the environmentally sensitive design standards and guidelines shall apply. Where disagreements occur regarding the presence or amount of environmentally sensitive features contained on a property, the Planning Commission shall determine compliance with this Article based upon the submitted evidence of staff and/or the applicant.

The city and county need the option to add floodplain designations to areas that obviously extend beyond the minimal delineations of the FEMA limits and potentially would cause significant hazard, and property damage if altered or encroached upon. This should also include important drainageways (streams) that aren't on the USGS maps (see next page). Please add "100-year flood or..."

Environmentally Sensitive Features include the following:

(1) Regulatory Floodplain:
    (i)   Regulatory Floodway, designated on the FEMA Flood Insurance Rate Map for Douglas County.
    (ii) Regulatory Floodway Fringe, designated on the FEMA Flood Insurance Rate Map for Douglas County.

(2) Jurisdictional wetlands as determined and regulated by the U.S. Army Corps of Engineers.

The density description must be modified because it would not apply to most woodlands in Douglas County and would completely exclude more mature forests.

(3) Streams, shown on the United States Geological Survey Quadrangle (USGS Quad) Maps, and their corridors*[2] as defined by the City Stormwater Engineer.

(4) Woodland Areas: Any tract of land with a contiguous wooded area not less than two (2) acres, as measured by the tree canopy, and containing not less than one hundred (100) trees per acre that are two inches (2") in diameter or greater 36" above the ground. Codes we have found for Midwest areas start with less acreage: from 1/2 acre minimally.

Protecting individually significant trees should be given wider range in size. The significance should depend partly on the tree species.

(5) Individually Significant Trees: an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees. Significant trees may be of any species listed in the Northeast Kansas Preferred Species List (available at the Planning Office) or any of the following native species: walnut, red maple, shagbark hickory, black cherry, black locust, American elm, Chinese elm, hackberry, osage orange, white/red mulberry, chinkapin oak, bur oak, white oak, black oak, honeylocust, cottonwood, sycamore, red cedar, black gum, or yellow poplar.

(6) Prominent Geographic Features with Rocky Outcroppings: A rocky protrusion of 50% or more exposed rock having greater than a 3:1 slope, a minimum height of 20' above the surrounding grade and covering an area of 1 or more acres.

There seem to be few rocky outcroppings that are as high as 20 feet above grade, but there are many that should be preserved. This standard is too exclusive.

(7) Archaeological and Historic Sites listed on local, state, or federal registers.

This has been changed to exclude historic sites not registered. This should be changed back to also include other archeological and historic sites because many eligible for registration would otherwise be lost.

(8) *Prairie remnant of one (1) acre or larger: Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties and containing Prairie Remnant of one (1) acre or larger. Prairie areas will be determined by the Kansas Biological Survey Prairie areas that have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies)* *[1]

(9) Slopes:
   (i) Steep Slopes: A slope of fifteen percent (15%) but less than twenty five percent (25%).
   (ii) Critical Slopes: A slope of twenty five percent (25%) but less than forty percent (40%)
   (iii) Protected slopes: Any slope of forty percent (40%) or steeper.

There should be some provision for protecting environmental features that extend over many ownerships. For example, if a woodland is owned by three people having one acre each, but together the tracts would qualify for woodland, would they all be able to obliterate the woods? A developer could bulldoze the tract and then consolidate the land as one ownership entity. This is partly accommodated in Section (k)(2) paragraph 2.

(e) Determination of Development Land Area

In determining whether a proposed development contains sensitive lands, all contiguous lands under the same ownership or control shall be considered. Lands owned or controlled by a partnership, trust or corporation shall be considered along with lands owned directly by the applicant and lands under option to the applicant or a partnership, trust or corporation under the effective control of the applicant.

(f) Exemptions.

The following activities are exempt from the requirements of this section:

(1) Extension of public utilities and infrastructure: A written request for exemption must be submitted to the Planning Director. Development activity may occur only after the Planning Director has determined that the amount of damage to the sensitive features is minimized either through construction methods or location and has provided written approval of the exemption request.

(2) Existing Single-Dwelling and Duplex Residences: Normal maintenance/expansion of single-family or duplex residences, including exterior remodeling,

reconstruction, construction, or replacement of single-family or duplex residences and accessory structures.

(3) Existing Subdivisions for Single-Dwelling and Duplex Residences: Construction of new single-family or duplex residences in platted subdivisions that are in existence, or for which applications for plats have been submitted, prior to the effective **DATE OF THIS TEXT AMENDMENT**.

(g) Woodland Management Activities. Practices associated with 'timber management standards' as defined by the International Society of Arboriculture, or its successor, or existing tree farming operations, such as Christmas tree farming, fruit, or nut production and tree nurseries, during such time as the land is used for tree farming operations are exempt.

PLEASE ADD:

"the Planning Director prior to any development application including a concept plan, rezonng application, preliminary plat or development plan..."

(h) **Sensitive Areas Site Plan**
Development on lands with environmentally sensitive areas as set forth in Section **XX(4)** shall require submission of a Sensitive Areas Site Plan.

A Sensitive Areas Site Plan must be submitted to and approved by the Planning Commission prior to woodland clearing, grading or any development activity on lands that contain environmentally sensitive features specified in **Section XX(4)**. ~~The Sensitive Areas Site Plan can be submitted concurrent with the submittal of any other site plan or development plan.~~ The approved Sensitive Areas Site Plan will be incorporated with other development or site plans for the property.

(i) **Development Activity Which Occurs Without Approval of a Sensitive Areas Site Plan**
If clearing, grading or other development activity occurs without approval of a Sensitive Areas Site Plan, the sensitive areas and features will be determined for the property using the best available data (aerials, surveys, etc.) and the property shall be made whole to the extent required in Section X(10) under the following guidelines prior to building permits being granted:

If only 20% of an area is required to be preserved, does this mean that the remainder can be destroyed in all cases of sensitive lands except those listed as critical?

(1) Removal of trees from woodland areas: If woodland areas are altered by human activity such as clearcutting or removal of trees to the degree that the property no longer meets the definition of 'woodland', the property owner shall protect the area that would have been required to be protected and replace the trees at a ratio of 1 tree per every 200 sq. ft. of prior woodland area to the extent required in Section X(10). (This requirement is in addition to any street tree, buffering, or other landscaping that is required by the Development Code.)

Depending on the size of the tract, the way this could be interpreted is that the entire amount of the two-acre woods could be eliminated except for a tiny stamd of trees.

(2) Damage to Stream Corridor: If the stream or the stream corridor, as required by the City Stormwater Engineer*[2], is altered by human activity, such as the removal of trees or vegetation or in anyway altering the channel, the property owner shall reestablish the channel and replace the trees at a ratio of 1 tree per every 200 sq. ft. of area of stream corridor as determined by the City Stormwater Engineer and shall reestablish ground cover per the approval of the City Stormwater Engineer.

Streams are where the young growth is useful because of their erosion control. The trees should be close together here.

(3) Destruction of remnant prairie. If an area that has been determined by the KS Biological Survey as having remnant prairies is plowed or otherwise destroyed, the

area of the former remnant prairie, as defined by the KS Biological Survey must be preserved as open space and replanted with prairie vegetation to the extent required in Section X(10) . *[1]

(j) Sensitive Areas Site Plan Procedure

A Sensitive Areas Site Plan shall be submitted and approved prior to any development activity, including vegetation removal or grading. The Sensitive Areas Site Plan ~~may be~~ submitted prior to, ~~or concurrent with,~~ another development application, i.e. plat, site plan, rezoning, etc. The Sensitive Areas Site Plan shall delineate and note all sensitive areas and designate protected sensitive areas and associated buffers.

shall

A development should be designed around protecting the sensitive areas rather than the reverse. The developer needs to know what areas he can develop before he designs his development. Therefore, the Sensitive Areas Site Plan should be submitted before any of the other requirements for an application are submitted.

A Sensitive Areas Site Plan shall be reviewed by the Planning Director in accordance with the Site Plan review procedure listed in Section 20-1305.

A Sensitive Areas Site Plan is normally submitted in preparation for another development proposal, such as a plat, development plan or site plan. There is no review fee for a Sensitive Areas Site Plan.

(1) Site Plan Contents:
(i) The site plan should be arranged so the top of the plan represents north or, if otherwise oriented, is clearly and distinctly marked.

(ii) The site plan should clearly delineate the property boundaries and all of the sensitive areas located on the property and shall designate protection zones for sensitive areas as prescribed below.

a. Regulatory Floodplain, including Floodway and Floodway Fringe, designated on the FEMA Flood Insurance Rate Map for Douglas County.

b. Wetlands. The site plan shall show the delineation of a jurisdictional wetland area that is accepted by the US Army Corps of Engineers prior to submittal of the Sensitive Areas Site Plan; and the site plan shall show any area that is included on the U.S. Fish and Wildlife Service Wetland Mapper as a suspected or potential wetland area, along with a 100′ buffer area unless a certified wetland specialist, the Kansas Biological Survey, or the Army Corps of Engineers, determine that the area is not a wetland.

There are substantial intermittent streams that are not identified on the USGS Quad map. These drainageways should also be preserved. They are major in terms of stormwater accommodation, should remain open, and their corridors should also be protected. An example are the streams that flow through the new wilderness park in Section 21 not shown on the USGA map.

c. Streams and stream corridors. Streams that are shown in solid or dashed blue lines on the USGS Quad Map shall be included with corridors as established by the City Stormwater Engineer.*[2] When other sensitive features are located within a stream corridor, the most stringent required protective buffer shall apply. Unless exempt under the provisions of this Section, the following buffer requirements shall be maintained:

The City Stormwater Engineer will rank the streams and will provide the required width of each stream corridor based on the size of the stream, and frequency and amount of seasonal flow. *[2]

This is the reverse of what it should be. The emphasis should be on protection of the stream and justification that it will be properly stabilized. The stream should take precedence over development. This is contrary to the Comprehensive Plan.

The amount of stream corridor required may be reduced by the City Stormwater Engineer if requiring the full stream corridor buffer would preclude reasonable use of the property, and enhanced vegetative cover will be provided in any remaining buffer area to the extent possible. A waiver request must be provided in writing to the City Stormwater Engineer which explains how the provision of the full required stream corridor precludes reasonable use of the property.

d) Woodland Areas. Any property containing a woodland area must submit a Sensitive Areas Site Plan prior to woodland clearing or any development activity. The following requirements apply to development on properties with woodland areas:

Please note again that the way this code reads is that any woods less than two acres can be bulldozed. Given woods more than two acres, thus qualified for protection, any portion of that which is more than 18% of the development tract could also be bulldozed, actually leaving less than the original two acres to be "preserved."

The woodland area required to be retained shall be delineated to include a buffer area by measuring fifty feet (50') outward from the trunks of trees intended to be preserved.

What is meant here by "site constraints?" Terrain? Or development constraints? Please specify.

If the Planning Commission determines that the required woodland area cannot be retained due to site constraints or infrastructure requirements, replacement trees will be required. One tree shall be planted for every two hundred (200) square feet of woodland removed from the otherwise required retention area and shall be of the same or equivalent species as those being removed.

The replacement of trees may be waived if it is determined by the Parks and Recreation Director that site constraints prohibit the replacement of trees on site.

These should be preserved completely.

To the extent possible, Woodlands located on steep slopes and/or within 100 year floodplains shall be given the highest retention priority. retained.

e) Individually significant trees. The species and size of the tree(s) shall be noted on the plan.

f) Archaeological and Historic Sites.

g) *Prairie remnants one acre in area or larger*
If development is proposed on a property which is shown on the Douglas County Natural Areas Inventory Map as containing remnant prairies these areas must be delineated and noted on the Sensitive Areas Site Plan, if confirmed by the Kansas Biological Survey.

All of the "shoulds" must be replaced with "shall."

Prairie remnants associated with other sensitive features should be treated as environmental assets, and should be considered no-build areas to the extent possible, and used for buffers, filter strips along waterways and/or neighborhood open space. *[1]

h) Steep slopes, slopes with grades of 15% or higher
Any property with slopes greater than 15% grade shall be required to submit a Sensitive Areas Site Plan.

Any property with slopes between 25% and 40% grade shall be required to submit a Sensitive Areas Site Plan and a grading plan. Disturbance of slopes with 25% to 40% grades requires approval of the City Stormwater Engineer.

This standard is really too high. Some communities start protection from grading and defoliation at far lesser slopes.

Any property with slopes of 40% grade or more shall be required to submit a Sensitive Areas Site Plan. Slopes greater than 40% grade shall not be graded and must remain in the existing state, except that natural vegetation may be supplemented by other plant material. A buffer will be required around any slopes of 40% grade or more. Two feet (2′) of buffer will be provided for each foot of vertical rise of the slope up to a maximum buffer of fifty feet (50′). No development activity, including removal of trees and other vegetation, shall be allowed within the buffer.

What do you mean by "supplemented?"

Does the buffer also include the slope? What this is saying is that the vegetation on the slope can be "supplemented" but the buffer shall be preserved. You don't mean that, do you?

i) A site summary table must be provided which includes the total site area, the area of each environmentally sensitive area delineated on the site plan, and the percentage of the total site which is included in each area. Areas with overlapping environmentally sensitive features must be listed along with the percentage of the total.

Many sensitive lands are classified as such because they either are intrinsically valuable as historically natural areas such as Balwin Woods, have important environmental functions, or pose hazards as building sites such as floodplains and steep slopes. It doesn't make sense to designate a proportion of a sensitive land as buildable if it is equally sensitive when compared to what is required to be saved.

(k) **Ranking and Required Protection of Environmentally Sensitive Features**
Protection of certain environmentally sensitive features is more critical than others. The following priority scheme will assist in the determination of environmentally sensitive areas in which protection is 'critical', those in which protection is important and should be achieved to the greatest extent possible and those for which protection is desirable.

All protected areas together shall not be required to exceed 20% of gross land area unless critical sensitive areas exist. Critical sensitive areas must be protected in their entirety. 10% of the protected area shall serve, and may be improved, as an open space amenity to the development as passive or active recreation.

When determining which features should be protected, protection will be required in the following ranking order:

This implies that only the critical areas will be protected if they exist in combination with protected areas. It should be stated that at least 20% of protected areas shall be preserved over and above that preserved as critical areas. We believe these standards are far less than needed.

(1) <u>Critical Sensitive Areas</u>. Areas containing the following critical sensitive features: floodway, stream corridors, jurisdictional wetlands, slopes with greater than 40% grade, or archaeological and historic sites. Protection of 100% of these sensitive features is required.

Some codes do not allow floodplains or hazardous areas to be disturbed and require 50% to 80% of the other sensitive environmental features to be left intact.

(2) <u>Protected Sensitive Areas</u>. Slopes between 25% and 40% grade, floodplain and areas with two or more environmentally sensitive features, other than those listed as 'critical sensitive features', occurring together. Environmentally Sensitive Features or Areas that occur together are of higher priority than any one feature occurring singularly. The priority increases with the number of

environmentally sensitive features occurring together. Protection of areas containing these features is required to the ==maximum extent noted above.==

Desirable Sensitive Areas. Areas with environmentally sensitive features, other than those listed as critical or protected sensitive areas, occurring singularly. In addition, woodland areas that are part of a larger continuous wooded area that may extend off site are of higher priority than woodland areas that are isolated. ==Protection of areas containing these features is required to the maximum amount noted above.==

(We're back to where we started. The "maximum extent noted above" is 18% protection of a total tract of non-critical areas. That is, 20% saved, with 10% of that allowable to be modified for recreation.)

(After all this, a developer, when starting with a completely wooded area or wide floodplain or other only protected feature(s) encompassing his entire tract doesn't have to save more than 18% of these environmentally sensitive features. Apparently some can be obliterated if they occur outside of where others with higher ranking occur, or is that the case? The smaller his tract, the less is saved of a non-critical sensitive area.)

(3)

(I)

Environmentally Sensitive Features shown on the site plan are prioritized for protection by the ranking scheme above in combination with an evaluation of the development proposal, the surrounding area (to determine connectivity) and the mix of sensitive features present on the site.

DEVELOPMENT OPTIONS

The following development options are available for properties containing environmentally sensitive lands:

(1) ==May develop as a Planned Development, per standards in Section 20-701, to protect the greatest amount of environmentally sensitive features possible while accommodating development. The minimum amount of natural open space to be preserved== will be determined after a review of the Sensitive Areas Site Plan. Planned Developments provide the following additional flexibility: reduced lot sizes, increase in maximum net residential density by up to 25%, reduction in minimum setback standards of the base district with some restrictions, increase in the height of the buildings, and reduction in the number of off-street parking spaces required.

(This contradicts the above statement under K paragraph 2, because the minimum is also the maximum required. Question again: would the protected amount be over and above the critical amount required to be saved, or would it be absorbed in the amount of critical land required to be preserved, thereby leaving only the critical areas to be saved?)

(2) May develop as a Cluster Development per standards listed in Section 20-702. If environmentally sensitive features are present, a Cluster Development may exceed the 35 lots permitted in Section 20-702(c)(1). Cluster Development allows the property to develop at the same maximum density as the base zoning district permits, but with no minimum lot area or lot width requirements. Special setbacks for the perimeter apply and 10′ separation is required between all detached dwellings.

(3) May develop with a site plan, or single-dwelling or duplex residential development may occur through a traditional subdivision, when a review of the Sensitive Areas Site Plan indicates that it is possible to develop the property according to the regulations of the base zoning district while protecting the sensitive areas through easements, building envelopes, common-ownership tracts, or other means. The development proposal shall be reviewed with the approved Sensitive Areas Site Plan to insure that the proposed development will preserve the amount of sensitive area necessary. The Sensitive Areas Site Plan shall be incorporated with any submitted development proposal, i.e. plat, site plan, development plan, etc. The protected sensitive areas and building envelopes must be shown on the preliminary and final plat to insure that buildings and construction activity do not encroach into the sensitive areas. A note must be included on the plat or site plan noting the party responsible for

(Using building envelopes hasn't been mentioned elsewhere.)

the maintenance of the protected environmentally sensitive areas and stating that all development activity, including grading and construction, is prohibited within the protected sensitive areas.

(m) Sensitive Areas Development Design Guidelines:

(1)   Street rights-of-way, public utility corridors and building sites should be located so as to minimize their impact on environmentally sensitive areas.

(2)   Where possible, environmentally sensitive areas to be protected should be located within designated public or private open space, either through dedication, a conservation easement, or control by a homeowner's association.

(3)   If a review of the Sensitive Areas Site Plan and proposed development indicates that it is not possible or reasonable to protect the required amount of sensitive features, mitigation may be possible. A mitigation plan shall be submitted to the Planning Commission for review. Any appeals from the Planning Commission's determination on the mitigation plan would be heard by the City Commission.

Notes. The text amendment is a draft document. Changes may be required as a result of the input received at the Planning Commission meeting. Changes to definitions of the following environmentally sensitive features are anticipated by Staff as more information is obtained:

[1]--*Prairie Remnants will be included in this text amendment if a map is available which shows where prairie remnants are located or if criteria is established which will allow for the identification of prairie remnants by Planning Staff and property owners.. It is Planning Staff's intent that the criteria for determining if environmentally sensitive features are present should be objective and easy for Staff, developers and property owners to apply.*

[2] –Stream Corridor widths vary based on the size of the stream and the amount of seasonal flow. Staff is working with the City Stormwater Engineer to establish corridor widths for different types of streams rather than requiring a 100' wide corridor for all streams.

Some communities measure stream corridors much wider than here in order not to constrain the natural meandering that occurs and protect the banks from eroding. In some communities the corridor with its buffer is defined as 100 feet from the bank on both sides and trees and natural vegetation cannot be removed except when it blocks the channel.

The following are definitions to be added to general glossary

Clearcutting. The removal of most or all trees on a site, or the removal of more than one-half (0.5) acre of trees in an area determined to be sensitive by this section, during a single timber harvesting operation or within a three (3) year period.

Environmentally Sensitive Areas – Areas containing natural features and/or natural resources which include regulatory floodplain, jurisdictional wetlands, streams and their corridors, woodland areas, individually significant trees, prominent geographic features with rocky outcroppings, archaeological and historic sites, prairie remnants and steep slopes.

Individually Significant Tree – A significant tree is an existing healthy tree which, when measured four feet above grade, has a minimum diameter of 8 inches for evergreen trees, or 12 inches for deciduous trees. Significant trees may be of any species listed in the Northeast Kansas Preferred Species List (available at the Planning Office) or any of the following native species: Walnut, Red Maple, Shagbark Hickory, Black Cherry, Black Locust, American Elm, Chinese Elm, Hackberry, Osage Orange, White/Red Mulberry, Chinkapin Oak, Bur Oak, White Oak, Black Oak, Honey Locust, Cottonwood, Sycamore, Red Cedar, Black Gum, or Yellow Poplar.

Open Space – An area of land or water, either landscaped or essentially unimproved, which is used to meet human recreational or spatial needs, or for resource protection.   Open space areas may or may not be improved but can include playfields, trails, greenbelts/greenways, community gardens, farmed areas, buffers between land uses of differing intensities, areas within community or neighborhood parks and other environmentally sensitive areas.

*Prairie Remnants – Prairie areas that have remained relatively untouched on undeveloped, untilled portions of properties and containing Prairie Remnant of one (1) acre or larger: Prairie areas that have remained primarily a mixture of native grasses interspersed with native flowering plants. (These areas have not been planted, but are original prairies) *[1]*

Stream – A stream is a natural body of flowing water, whether constant or intermittent, that begins at headwaters and gathers water from run-off, rain, snow melt, or from underground springs. Streams hold great importance regardless of size or flow. Streams provide water, a variety of aesthetic values and are important wildlife habitats. All streams shown in blue dashed or solid lines on the USGS Quad maps are included in this listing.

The following term will be replaced:
~~Stand of Mature Trees: An area of ½ acre or more covered by densely wooded growth of mature trees having a minimum height of 25 feet.~~

Woodland Area – Any tract of land with a contiguous wooded area not less than two (2) acres and containing not less than one hundred (100) trees per acre that are two inches (2″) in diameter or greater measured 36″ above the ground. The extent of any woodland plant community or any part thereof shall be measured from the outermost drip line of all the trees in such plant community. Woodland shall include any area where clearcutting has occurred within the previous three years.

This definition is much too limited and would not apply to much of the woodlands in and around Lawrence because of the age of these forests. When the forests are older the trees are larger and farther apart and therefore the density of trees is less than in younger forests. Also, to limit the consideration to two acres of contiguous trees would not take into consideration the fact that in normal woods, there would be clearings within the woods around certain other land features, such as rocky outcroppings that are at ground level or drainage channels, and the trees would not be contiguous. The definition would not accommodate areas like Baldwin Woods.

The following term will be revised:

Stream Corridor – ~~A strip of land 100 feet wide, of which the centerline shall be the centerline of a stream that is not an intermittent stream or an intermittent stream specifically identified in the comprehensive plan as a significant intermittent stream subject to protection.~~
A stream corridor is a stream and its buffer area, the width of which varies according to the size of the stream, the amount of flow, and topography of the site. The City Stormwater Engineer will determine the required buffer area for streams. ★[2]

In reviewing codes from other communities, we found that the percentage of sensitive lands required to be preserved also depends on what it is. Woodlands are considered fundamental environmental needs and are preserved 100 per cent in stream corridors and on steep slopes, (which are much more protected than in this draft, often starting at 15%). Woodlands in some codes are preserved up to 80% in residential developments, less in commercial developments.

QUESTION: In mitigation requirements, if a developer bulldozes an entire woodland, would he be required to replace only 18% of the trees?

MEMORANDUM

TO: Members of the Lawrence, Kansas Planning Commission

FROM: Burke Griggs, attorney for the Lichtwardts

SUBJECT: Planned revisions to the sensitive lands code

DATE: May 19, 2008

CC:

Dear Members of the Planning Commission:

Our office represents Robert and Betty Lichtwardt, who have asked me to provide written comments upon the Commission's planned revisions to the sensitive lands building code.

In March the Commission decided to revisit this area of the code to make it less vague; apparently members of the "development community" (presumably developers) were concerned about its vagueness. Based upon a review of these planned revisions, it appears that the Commission has decided to clarify the code, but at the cost of the sensitive lands the Code is supposed to protect. Please allow me to provide three examples of how these planned revisions eliminate whatever protections existed under the original language in Section 11.

First, it appears that the former floor for protecting sensitive lands has been lowered, and then changed to a ceiling. Whereas the existing Code section requires a minimum of 20% of the sensitive lands to be preserved, the planned revisions require only 18% to be preserved, *at maximum.* Planned revisions, §1101(k). If that is indeed the case, then Section 7 imposes stiffer restrictions on sensitive lands than the sensitive lands section, since the more restrictive land regulation shall apply. §20-109(b). Reducing protection in order to clarify what protection is seems perverse.

Secondly, the planned revisions give full license for a developer (or a member of his community) to destroy the sensitive lands in question, as long as he takes subsequent steps to mitigate the destruction. § 1101(i). This presumption violates every principle of environmental preservation. Needless to say, this presumption must be eliminated from the planned revisions: any site work must not take place until the City has approved the sensitive lands site plan, which requires revision of § 1101(j) as well. Destroying sensitive lands in order to save them is perverse.

Finally, the definitions provided in § 1101(d) sacrifice protection for specificity. Although they do achieve a higher level of specific detail than the current regulations, these details eviscerate whatever protections Section 11 is intended to provide. Woodland areas are defined according to the logic of a nursery, rather than a mature second-growth forest. Rocky outcroppings are defined as if this were Douglas County, Colorado, with its massive sandstone uplift formations, rather than Douglas County, Kansas, with its geology of deposition and erosion, which creates smaller outcroppings that still merit protection. Historic sites must now be listed in order to be protected, which puts many valuable historic sites at risk. In each of these cases, the planned revisions provide more specific definitions which ignore the ecological, geological, and historic realities of eastern Kansas. Defining the things presumably protected in order to render them irrelevant is perverse.

Under the planned revisions to the sensitive lands code, it is now possible for a member of the development community to clear sensitive lands, tear down historic structures, and fundamentally alter the site, as long as said member of the development community landscapes the site afterward to meet the minimums. If this is the intent of the Planning Commission, then it should be candid. But if the Commission intends to protect sensitive lands, it should revise Section 11 to provide that protection, rather than to eliminate it. Napalming a village in order to save it is not effective policy. Both the substance and the procedure of these revisions need to be fundamentally improved. Thank you for reviewing these comments.

May 19, 2008

To: Grant Eichhorn, Chair
    Members of the Lawrence/Douglas County Planning Commission

Re: Text amendment proposal for Section 10-1101(d) from the Development Code and replacing it with the language in Section 20-1109.

I would like to offer the following comments regarding the staff report for the Protection Standards for Environmentally Sensitive Areas.

While the intentions of the section's purpose and objectives are laudable, they fall far short of a "protection" standard from an ecological perspective.

Specifically let me begin with the **ranking system**:
        Under the Critical Sensitive Areas section (k), no mention is given to native prairies. Douglas County has already lost nearly 98% of its original prairies. If I interpret this section correctly, only 20% of any remaining prairie parcel would have to be left intact in a proposed development – that is, 80% could be obliterated and still meet the "protection standard." Furthermore, a portion (10%) of what remains could be "improved". Remaining Douglas County prairies represent a culmination of millennia of ecological evolution and nothing that humans can do would "improve" them. In addition to protecting the entire prairie parcel, there should be a pesticide-free buffer zone to ensure destruction of native prairie species. Any remaining prairie in this county should receive a Critical Sensitive Area designation ensuring protection in its entirety.

        Similarly for wooded areas, they provide additional benefits other than those enumerated in the preamble stated in the staff report. They are carbon sinks and replenish atmospheric oxygen, provide erosion control, trap sediment and other pollutants before they reach receiving streams, provide for water temperature stabilization thereby enhancing aquatic life, and act as habitat for a host of other plant and animal species. As such, it seems to me that requiring a mere 20% protection of these incredible assets offers very little safeguard for areas that provide incredible value beyond their aesthetic "amenities". I believe a far greater percentage of woodlands needs to be offered protection; ideally 100% should be protected, with a minimum of 75% of the wooded area protected.

Although there are many more comments I would like to offer, time constraints do not allow them. I will, however, address a primary concern regarding the definition of "woodland area" in the document. In discussion with others, there have been many concerns raised whether or not this

definition would protect some of our county's most important wooded areas: the Boyd Woodlands, Rice Woodlands, and Brydenthall Woodlands. All of these areas are mature wooded areas with many large trees. They all have **an uninterrupted and contiguous tree canopy**. Many people I have spoken with doubt that these areas would meet the definition of "wooded area" because as forests mature, trees grow larger and the forest becomes less dense.

It seems to me that using aerial or satellite photographs (easily obtained using Google maps), a determination of a proposed development tract's wooded nature can be determined without sending someone out to do an actual count of the number of trees that are or exceed 2" in diameter in an acre. Using the definition of a "wooded area" as **an uninterrupted and contiguous tree canopy** is not only readably obtainable; it is also very objective in nature.

Thank you for considering these remarks.

Sincerely,

Joyce Wolf
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785-887-6019