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## MEMORANDUM

**TO:** Story County Planning and Zoning Commission  
**FROM:** Andrea Wagner, Planner  
**RE:** Proposed amendments to the Story County Land Development Regulations, Chapter 85—Definitions, Chapter 88—General Site Planning Standards, Chapter 87—Land Division Requirements, and Chapter 86—District Requirements

## MEETING

**DATE:** March 1, 2023

### Introduction

As part of the Planning and Development Department’s comprehensive review and update of the Story County Land Development Regulations, staff prepared a draft of proposed changes to Chapter 85—Definitions, Chapter 88—General Site Planning Standards, Chapter 87—Land Division Requirements, and Chapter 86—District Requirements. These changes provide standards for the protection of critical natural resource areas during development. For most areas covered by the update, “development” refers to proposed rezonings, conditional use permits, commercial site plans, and subdivisions of two or more development (buildable) lots. The Commission saw previews of these changes during their November 3, 2021, meeting and their May 4, 2022, meeting.

The proposed ordinance updates protections for particularly critical areas in the County, and clarifies language in our existing code. Critical natural resource areas covered by the ordinance include wetlands, remnant prairie and savanna, significant slopes, significant trees, archaeological resources, and watercourses and other waterbodies. County Conservation staff reviewed the updates throughout the process, and their feedback has been integrated into the draft presented today. These updates are reflected in Chapter 88.05—Environmental and Natural Resource Standards and Chapter 85.08—Definitions.

Staff also made edits to Chapter 87—Land Division Requirements and Chapter 86—District Requirements. This is due to the interrelated nature of the zoning ordinance. In Chapter 87, we clarified which types of subdivision plats will be required to denote critical natural resource areas, and in Chapter 86, we removed the Residential Conservation Design (Overlay) District since the proposed updates make that overlay unnecessary and the County has not applied the overlay at any time.

### Goals of the Ordinance and Sources of Information

A primary goal of the updated ordinance is to better align the Land Development Regulations with the Cornerstone to Capstone (C2C) Plan, which has a focus on preserving natural amenities and cultural resources. This update also assists in implementing recommendations from the Countywide Watershed Assessment. Recommendations from that assessment included achieving no net-loss of wetlands in



Story County, as well as to protect land cover (e.g., prairie, savanna, and significant trees) and restore stream buffers.

To date, staff has communicated with the watershed coordinator/water resources planner in Polk County, as well as with staff in Johnson County's planning department. Both counties have adopted ordinances similar to what we are proposing for the protection of critical natural resource areas during development, and we have used their ordinances for guidance. Linn County has adopted critical natural resource mapping as part of the future land use map as well.

Staff also contacted the Natural Resources Conservation Service (NRCS), U.S. Army Corps of Engineers, and Iowa State University Extension to inform what would be included in the ordinance. These contacts provided further guidance on appropriate definitions and mitigation/restoration of critical natural resource areas.

### **Updating the Future Land Use Map of the Cornerstone to Capstone (C2C) Comprehensive Plan**

In 2016, with the adoption of the County's C2C Comprehensive Plan, a future land use map was also adopted that showed natural resource areas. As part of the proposed update to the ordinance, staff amended the natural resource area map and refined it by removing existing buildings from natural resource areas and by mapping significant slopes. This remapping is also a strategy in the C2C Plan. Staff will be asking for the Commission's recommendation to the Board of Supervisors on amending the future land use map with the amended natural resource areas layer.

### **Outreach on the Ordinance**

#### **Conservation Professionals**

As already mentioned, staff have been in communication with County Conservation, including taking a previous draft of this ordinance to the County Conservation Board. Conservation staff have provided valuable feedback on identifiers for critical natural resource areas and the proposed buffer sizes.

In addition to gathering comments from Conservation staff, Planning and Development also sought out training from an Iowa State professor of Agronomy to gain a better understanding of hydric soils. Though professional delineation of wetlands may still be required if hydric soils are present on a site, staff now have more insight into identifiers of hydric soils and when recommending professional delineation may be necessary.

The District Conservationist for Story County also provided valuable information regarding how the Natural Resources Conservation Service (NRCS) approaches restoring farmed wetlands, as well as how they identify potential wetlands without being on-site. Importantly, their method of identifying potential wetlands is similar to what staff have proposed in our ordinance, and the District Conservationist relayed that they feel the National Wetlands Inventory is missing existing wetlands.



Given some of the Commission's previous concerns about the ordinance, staff would like to reiterate that the proposed ordinance in no way impacts farm operations or farm fields where wetlands may exist. The proposed regulations would only apply to specific types of development applications that are typically taking land out of agricultural production or impacting other green or open spaces.

#### Public

On February 13<sup>th</sup>, staff mailed postcards to the owner of record for every parcel that was intersected by the amended natural resources layer, which amounted to over 2,500 postcards. These postcards included the date of the Commission meeting and a web address for our [Current Projects page](#) where more information on the updates can be found, including a video and summary of each ordinance section.

As of the writing of this memo, staff has received 48 phone calls from property owners who had questions, assisted several walk-ins by looking at the amended map together, and responded to 10 emails asking for information.

Main areas of concern for the public were whether the ordinance would limit their ability to build on residential properties or if it would impact agricultural operations. After receiving clarifications from staff on allowable impacts to trees and slopes, and how stream buffers would be implemented, the majority of individuals did not have further concerns. Of the interactions with the public, three individuals were vocally opposed, and six were vocally supportive.

Amelia Schoeneman, Planning and Development Director, has a meeting scheduled with the Homebuilder's Association on Monday, February 27<sup>th</sup>, to answer their specific questions.

#### **Existing Code Versus the Proposed Updates**

We currently have protections for trees, steep slopes, rivers and streams in our code that apply to all permits and development. However, the ordinance clarifies these requirements to ensure they are applied appropriately and equally. For example:

- All new lots must be "properly related to topography" under our current code, but this term is not further defined. The proposed ordinance would define what is considered a steep slope (greater than 15%), maps these areas, and provides standards for building to ensure a site is suitable.
- In the current code, replanting is required if more than 15% of trees are impacted on a property. The proposed ordinance would allow individual property owners to impact one acre of trees on their property, increasing flexibility while protecting more trees overall.
- Existing stream buffers would be updated to better account for natural meandering or movement of streams, better protecting development and natural functions.



The standards for wetlands, prairies, savannas, and archaeological resources are proposed to only apply to larger developments: subdivisions of two or more lots and commercial development including conditional use permits. The current code has broad standards for environmental protection that these developments must meet.

For example, for conditional uses “The development shall be planned and operated in such a manner that will safeguard environmental and visual resources. The development shall not generate excessive noise, vibration, dust, smoke, fumes, odor, glare, groundwater pollution or other undesirable, hazardous or nuisance conditions, including weeds.”

For rezonings, “the proposed rezoning shall protect environmental resources. Rezoning of parcels containing more than 50 percent of the gross acreage as lands identified with areas designated natural resource areas on the Cornerstone to Capstone (C2C) Comprehensive Plan shall not be approved unless such requested action results in a district designation more restrictive than the current designation, the R-C Residential Conservation Design (Overlay) District is applied to the property, or conditions protecting the identified areas are attached to the rezoning request.”

These types of development requests, and subdivisions, must also conform with the C2C Plan. When natural areas are mapped on a property, the C2C Plan also has general guiding principles to protect those areas.

To ensure standards for rezonings, conditional uses, and subdivisions are met, staff often propose conditions to protect certain resources. The proposed ordinance defines those standards and expectations—when they apply, what impacts are allowed, and what mitigation measures are required. Staff feels this provides transparency and guidance when development is proposed, as opposed to the department’s current practice of recommending conditions on a case-by-case basis for subdivision plats or commercial development in order to protect natural areas.

Without these changes to create clear guidelines, the County could lose otherwise restorable wetlands, prairie or savanna remnants, and tree stands, as well as constrict natural floodplains that are necessary for carrying floodwaters and recharging our sources of drinking water.

### **Proposed Ordinance**

The ordinance is summarized by section below. Additional notable changes include:

- A new provision for residential development that allows applicants to request a reduction in minimum lot size if there are natural areas that are required to be protected in compliance with the ordinance. This provision would allow the same total number of lots in a development based on the net acreage of a parcel and a density of one unit per acre.



- Requiring Stormwater Pollution Prevention Plans to be submitted to the County for developments over one-acre in size that require an NPDES permit from the State of Iowa. This will assist in ensuring erosion control requirements are met.

### **Significant Native Trees and Woodland Shrubs**

The proposed ordinance updates the County's existing requirements to protect significant trees. Native woodland shrubs are also included. The proposed protections would apply to all work permitted through zoning (building) and grading permits, conditional use permits, commercial site plans, and subdivisions with two or more development lots.

#### ***What trees and shrubs are protected?***

Significant trees are defined as native, deciduous trees (e.g. oaks) with a caliper greater than four (4) inches, measured four (4) feet off the ground, or a native coniferous tree (e.g. pines) taller than fifteen (15) feet. Significant native shrubs have a basal diameter (trunk near the ground) of three (3) inches. Protected trees and shrubs must also be mapped as part of a larger natural area, such as a stream corridor. They are not individual trees found in a yard or windbreak.

#### ***What protections are proposed?***

For zoning and grading permits, up to one (1) acre of significant trees and/or shrubs may be impacted. When over one (1) acre is impacted, the ordinance proposes mitigation be required (e.g. replanting). For commercial site plans and subdivision plats of two or more buildable lots, any impact to significant trees or shrubs will require mitigation.

Mitigation of significant tree and shrub impacts is **not required** when they are impacted due to **agricultural operations**.

When mitigation is required for work permitted through **zoning and grading permits**, a tree or shrub **replacement plan** may be approved by the Planning and Development Director. **Replacement trees can either be replanted on the site** or at County-owned parks or preserves, certain areas undergoing riparian buffer improvements, or private land under a conservation easement or in a land trust.

**Larger developments** where mitigation is required will be required to submit a **full mitigation plan completed by a qualified professional**.

### **Wetlands**

A goal from the Countywide Watershed Assessment is for no net loss of wetlands. The proposed protections for wetlands will apply to all proposed rezonings, conditional use permits, commercial site plans, and subdivisions with two or more development lots.

**The proposed wetland protections will not apply to agricultural operations or permits for non-commercial development on an individual property.**



***How are wetlands identified?***

Many wetlands have been drained. Due to this, there is not a comprehensive map or other source that shows where all wetlands are located.

Wetlands are proposed to be identified based on the following:

- a) Wetlands identified on the Story County Countywide Watershed Assessment maps and/or U.S. Fish and Wildlife Service National Wetland Inventory.
- b) Hydric soils identified on the Story County Soil Survey maps.
- c) Depressions and evidence of ponding on U.S. Geological Survey Topographic Maps and aerial imagery.
- d) Soil borings provided by a registered soil engineer and/or a survey of plant material completed by a botanist, landscape architect, engineer, or other qualified professional.

A professional may also be hired to identify and delineate the wetlands.

***What protections are proposed?***

The ordinance defines three separate classes of wetlands based on its size and the number of wetland vegetation classes. Class 1 wetlands are considered the most critical, and the only allowed impacts are County Engineering's public infrastructure projects.

**An undeveloped buffer must be maintained around a wetland.** The size of the buffer is based on the wetland's class—100 feet for Class 1, 75 feet for Class 2, and 50 feet for Class 3.

**Restoration of wetlands** on-site may also be required.

The ordinance allows impacts to Class 2 and Class 3 wetlands for a restricted set of uses/reasons: management activities necessary for restoration and maintenance of the wetland; infrastructure necessary for access to a property, such as drive entrances and access roads; rural water lines, gas lines, or other public utilities. These impacts shall be the minimum necessary.

**If impact is allowed** and disturbs over one-tenth (4,356 square feet) of an acre, **mitigation is required.**

- If existing, off-site wetlands are proposed to be preserved to meet mitigation requirements, wetlands shall be preserved at a ratio of 1:1.
- For mitigations reconstructing or creating wetlands, wetlands shall be replaced at a ratio of 2:1.
- For mitigations restoring previously drained or impacted wetlands, wetlands shall be restored at a ratio of 2:1.

**Again, agricultural operations are not required to buffer or mitigate wetlands.**

**Watercourses and Waterbodies**

The proposed ordinance includes buffers from watercourses such as streams. These buffers are based on the natural movement of streams to protect both the stream and any nearby development. These



provisions will apply to all zoning and grading permits, conditional use permits, commercial site plans, and subdivisions with two or more development lots.

***How are watercourses and waterbodies identified?***

Watercourses and waterbodies will be identified through the Countywide Watershed Assessment maps, Natural Resource Area maps, or FEMA Flood Insurance Rate Maps.

***What protections are proposed?***

**Development buffers** will be determined based on three factors: whether the floodway is identified on the current Flood Insurance Rate Map, whether the watercourse or waterbody is covered by the Special Flood Hazard Area (SFHA), and whether the buffer width covers identified riverine wetlands. The buffers range **between 75 and 100 feet**. Development besides installation of utilities and roads or accesses is not permitted in the buffer area.

As many of the buffer areas will be in locations designated as a Special Flood Hazard Area, the **Story County Floodplain Management regulations would also apply** to any development, dredging, grading, filling, etc., in these areas.

**The required buffers from watercourses or other waterbodies do not apply to agricultural operations.**

***What size of buffer applies?***

The floodway and SFHA are from Story County's Flood Insurance Study, prepared by FEMA. The **floodway** refers to the channel of a river or stream and the portion of the floodplain that carries floodwaters and where any encroachment could cause flood levels to increase by more than one foot.

The **Special Flood Hazard Area** refers to the land that is subject to a one percent annual chance (100-year), or greater, flood.

Mapped rivers and streams with identified floodway will have a 75-foot undisturbed buffer on each side of the floodway boundary, unless the method described below creates a larger buffer. Then the larger buffer area shall apply.

Mapped rivers and streams with no floodway identified on the Flood Insurance Rate maps, but that are located in a SFHA, will have 50-foot undisturbed buffers on each side of the river's or stream's belt width, which is illustrated below in Figure 1.

Other mapped watercourses and surface waterbodies that are not located in a SFHA will have a buffer 50 feet in width, as measured from the edge of the watercourse or waterbody.

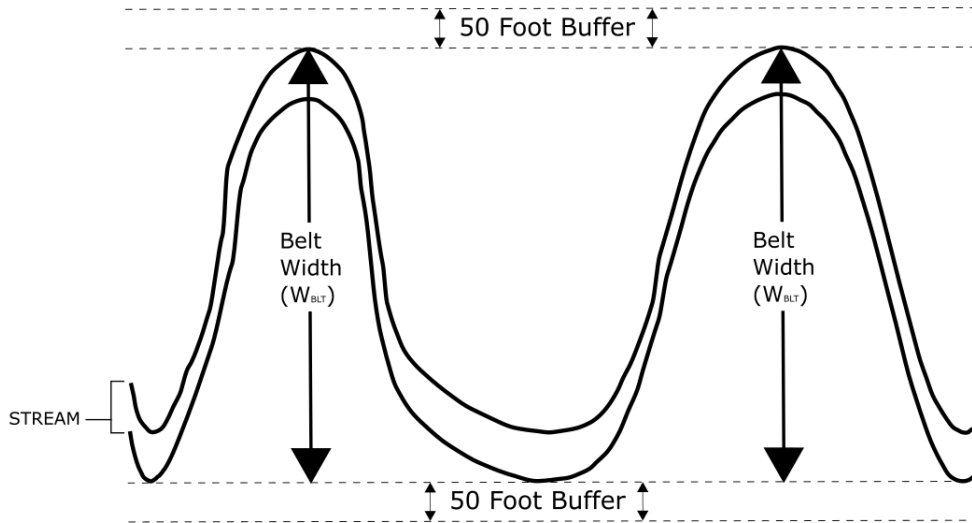


Figure 1 Stream Belt Width

### Prairie Remnants and Savanna Remnants

Prairie remnants and savanna remnants are rare ecosystems. Few are left in Story County. The provisions for protecting prairie remnants and savanna remnants will apply to all proposed rezonings, conditional use permits, commercial site plans, and subdivisions with two or more development lots.

**The provisions for protecting prairie and savanna remnants will not apply to agricultural operations.**

#### ***How are prairie and savanna remnants identified?***

Prairie remnants and savanna remnants will be identified via the following procedures:

- a. Review of the Story County Natural Resource Area maps.
- b. Use of historic aerial photographs to determine the cropping history of the property. Unplowed or uncropped prairies shall be considered remnants.
- c. If the above procedures do not definitively rule out a prairie remnant or savanna remnant, a qualified professional shall complete an on-site assessment during the prairie growing season, between June 15th and August 15th. A prairie remnant and savanna remnant may only be identified by the flora present, not soil type. For savanna remnants, large (greater than eighteen (18) inches diameter breast height), open-grown, native trees, such as Oak or Hickory, must be present.

#### ***What protections are proposed?***

If a prairie remnant or savanna remnant is identified, the applicant shall have a qualified professional delineate the entire remnant area. Development must maintain a one-hundred-fifty (150) foot vegetated buffer around the delineated remnant area(s).





Impact on delineated prairie remnant and savanna remnant shall be limited to: management activities necessary for restoration and maintenance of the remnant; infrastructure necessary for access to a property, such as drive entrances and access roads; County Engineering projects; and public infrastructure. These impacts shall be the minimum disturbance necessary.

In cases where prairie remnant and/or savanna remnant exist on a site and allowable impacts occur, mitigation shall occur either on-site or off-site, and a detailed mitigation plan shall be submitted to the Planning and Development and Conservation Directors for review and approval.

### **Archaeological Resources**

Archaeological resources are defined as those areas that contain significant archaeological sites, such as Native American mounds and burial sites.

The provisions in this section of the ordinance shall apply to all proposed commercial and industrial development and site plans, subdivisions with two or more development lots, rezonings, and conditional use permits within six-hundred fifty (650) feet of a stream.

#### ***What protections are proposed?***

If the proposed development meets the standard above, then the applicant shall use the Iowa Site File for archaeological sites, which is provided by the Office of the State Archaeologist (OSA). If the OSA recommends an archaeological survey, the applicant shall engage a qualified consultant from the Association of Iowa Archaeologists (AIA) Consultants List.

If burial sites and/or Native American mounds are found on the site, the applicant shall institute a minimum 100-foot buffer or a buffer zone as requested by Native American Nations (or other appropriate descendent communities). This buffer zone shall be left undisturbed.

### **Significant Slopes**

Significant slopes are often found above watercourses and/or are forested due to being ill-suited to agricultural production. In order to minimize the effects of erosion on the County's watercourses and protect development, the proposed update limits their disturbance and the development allowed.

#### ***What protections are proposed?***

For lots, parcels, or tracts existing prior to the adoption of the ordinance, impacts to slopes greater than or equal to 15% shall require plans from a qualified professional.

For lots, parcels, or tracts created after the adoption of the ordinance, there are three categories of slopes, each with their own allowed impact thresholds: steep, critical, and protected.

- 1) **Steep slopes** (between 15% and 25%) shall not be cleared, developed or built upon without an approved plan, completed by a professional. Contiguous steep slopes on any lot shall not have an impervious surface coverage greater than fifteen (15) percent.



- 2) **Critical slopes** (between 26% and 35%) shall not be impacted greater than twenty-five (25) percent, and such impact shall be limited to the installation of required infrastructure, such as driveways and access roads, rural water lines, gas lines, or other public utilities. A plan to re-vegetate the site shall be required, completed by a qualified professional.
- 3) **Protected slopes** (greater than 35%) shall not be impacted for any reason, with the exception of installing required erosion and/or stormwater control management practices, or the installation of essential utilities. A plan to re-vegetate the site shall be required, completed by a qualified professional.

Additionally, to prevent encroachment of impervious surfaces on significant slopes, for lots created after the adoption of this ordinance, there shall be a two (2) foot buffer for every one (1) foot of vertical rise, measured from the top of the **shoulder of critical or protected slopes**.

### Alternatives

The Story County Planning and Zoning Commission may consider the following alternatives:

- 1) **The Story County Planning and Zoning Commission recommends approval of the Text Amendment to the Story County Land Development Regulations to update the protections for critical natural resources, to the Story County Board of Supervisors, including adopting the amended natural resource areas layer of the future land use map.**
- 2) The Story County Planning and Zoning Commission recommends denial of the Text Amendment to the Story County Land Development Regulations to update the protections for critical natural resources, to the Story County Board of Supervisors, including adopting the amended natural resource areas layer of the future land use map.
- 3) The Story County Planning and Zoning Commission defers recommendation on the Text Amendment to the Story County Land Development Regulations to update the protections for critical natural resources, and the adoption of the amended natural resources layer, and requests Staff to further review and/or modify the draft ordinance, and directs Staff to place this item on a future Planning and Zoning Commission Agenda.