

COUNCIL ACTION FORM

SUBJECT: AMENDMENTS TO FLOOD PLAIN ZONING REGULATIONS AND ADOPTION OF NEW FLOOD MAPS FOR COLLEGE CREEK AND WORLE CREEK

BACKGROUND:

Since the City of Ames participates in the National Flood Insurance Program (NFIP), property owners in the City are eligible to purchase flood insurance to protect their structures and contents. To participate in the NFIP, the City is obligated to regulate development so as to reduce the risks of loss of life, personal injury, and property damage. To accomplish these goals, the City Council adopted an ordinance that regulates development in the flood plain and maps that identify the flood plain for waterways throughout the City.

Part of that ordinance adopts by reference the Flood Insurance Rate Maps (FIRMs) prepared by the Federal Emergency Management Agency (FEMA). The current Flood Insurance Study (FIS) and FIRMs were completed and adopted in 2008. A new study and maps have been prepared for a portion of the community and are slated to become effective on October 16, 2014. **The City must adopt these maps by that date in order to remain in compliance with the NFIP.** These maps affect the area around College Creek and Worle Creek in west and south Ames.

In November, 2010, City staff became aware of an opportunity for a restudy of a portion of the City's mapped flood plains. FEMA's fiscal year 2011 appropriations included grants for flood map updates to high-performing Cooperating Technical Partners (CTP) nationwide. The Iowa Department of Natural Resources (IDNR) is the CTP for Iowa.

In April, 2011, City staff met with representatives of IDNR and FEMA to discuss a scope of services that would allow for remapping of flood plains in Ames. Staff discussed with IDNR and FEMA the possible geographic extent of a mapping update and potential costs to the City. The mapping study required a 25 percent match which IDNR indicated they would provide.

The meeting resulted in the selection of these two watersheds as the study area. These areas were selected because of identified problems with the current mapping of the flood area and because of the limited available funding for studies. The new mapping updates the flood area for 100-year storm events, which is consistent with the NFIP. College Creek, in particular, has special problems with the current mapping—in some places, the mapped flood plain is 50 feet away and 30 feet higher than the creek. A map of the location of College Creek and Worle Creek are included as Attachment 1.

FEMA's consultant conducted the flood study. Once draft maps were prepared, City staff conducted an open house in August, 2013. Staff mailed an invitation to all property owners adjacent to College Creek, Worle Creek, and the two tributaries of Worle Creek.

The new Flood Insurance Study has resulted in more accurate Flood Insurance Rate Maps depicting Base Flood Elevations (BFE is the water surface level of a 100-year flood event). This was possible because of the use of aerial topographic data of the entire city and physical surveys of portions of the watersheds. **These more accurate maps will help the community plan for and better regulate development activities in the flood plain. It will also help affected homeowners and businesses to obtain the proper level of flood insurance coverage at the best price.**

Of particular note in Campustown is that portions of College Creek from Hayward Avenue to Lynn Avenue have been removed from the flood plain. Upstream from State Avenue, the extent of the floodway fringe has been reduced and the expected water levels from a 100-year flood event have been lowered as a result of the new modeling. Some homes on the north side of the creek will be removed totally from the flood plain, allowing them to purchase flood insurance at a much lower premium. Also, areas of this creek upstream from South Dakota Avenue have been realigned so that the flood plain is centered on top of the creek rather than on adjacent houses.

The impact on Worle Creek and its tributaries is less pronounced. Portions of one tributary of Worle Creek as it flows through the existing and proposed ISU research park have more details and the extent of the flood plain is narrowed as it flows through the airport property. Much of the benefit of the proposed maps is found along that portion of Worle Creek that lies outside the City limits but within the Southwest Allowable Growth Area.

The consultant has a website containing all the relevant documents of the study and the preliminary maps. It allows a user to compare the existing flood maps with the proposed maps to determine the impacts on any particular property. The website can be found at this link: http://12.23.244.78/IA_Story_Outreach/

Proposed Amendments

Amendments are proposed to four sections of Chapter 9 and can be found in Attachment 2. In summary, the amendments do the following:

Amendment to Section 9.2(2) adopts the new FIRMs. This amendment is necessary to ensure compliance with the NFIP. The new FIRMs establish new base flood elevations and delineate a new floodway and floodway fringe for College Creek, Worle Creek, and two unnamed tributaries of Worle Creek.

Amendment to Section 9.5(2)(c) removes the reference to National Geodetic Vertical Datum 1929 (NGVD 29). This scale of measuring elevations was used in the existing FIRMs but the new maps establish elevations for the study area in North American Vertical Datum 1988 (NAVD 88). It retains the NGVD 29 in the remainder of the

community. Loss of this reference is of no significance as the new FIRMs provide the necessary references to the appropriate vertical datum.

Amendment to Section 9.7 references the new definition of “development” (rather than repeating it) found in Section 9.11 and deletes another reference to NGVD 29. Furthermore, it authorizes the establishment of a fee for the issuance of flood plain development permits. The City Council established the fee effective July 1, 2014.

Amendments to Section 9.11 establish new definitions for “development,” “minor project,” and “routine maintenance of existing buildings and facilities.” These changes allow the exemption of certain minor projects and maintenance from the requirement of obtaining a flood plain development permit. This approach was recommended by the Iowa Department of Natural Resources in order to reduce monitoring and permitting requirements of insignificant projects in participating communities throughout the state. Under current rules, even such innocuous projects as reshingling a home or installing a flagpole require a flood plain development permit. Since these activities have little or no impact on water levels during a flood event and do not rise to the level of a “substantial improvement,” the IDNR recommends a formal exemption of them from permitting requirements.

Planning and Zoning Commission Recommendation. The Planning and Zoning Commission met on September 3 and recommended approval (6-0) of the proposed text amendments to the flood plain zoning regulations.

ALTERNATIVES:

1. The City Council can amend Chapter 9 of the Ames *Municipal Code* as shown in Attachment 2.
2. The City Council can deny the proposed amendments. This action would lead to the suspension of the City of Ames from the National Flood Insurance Program. Suspension would not allow property owners or renters to renew existing or purchase new flood insurance policies.
3. The City Council can refer the proposed amendments to the flood plain zoning ordinance back to staff for specific further information or for further options. This option would require the City Council to approve multiple readings at the next or subsequent meeting in order to have final passage of the ordinance by the effective date of October 16, 2014.

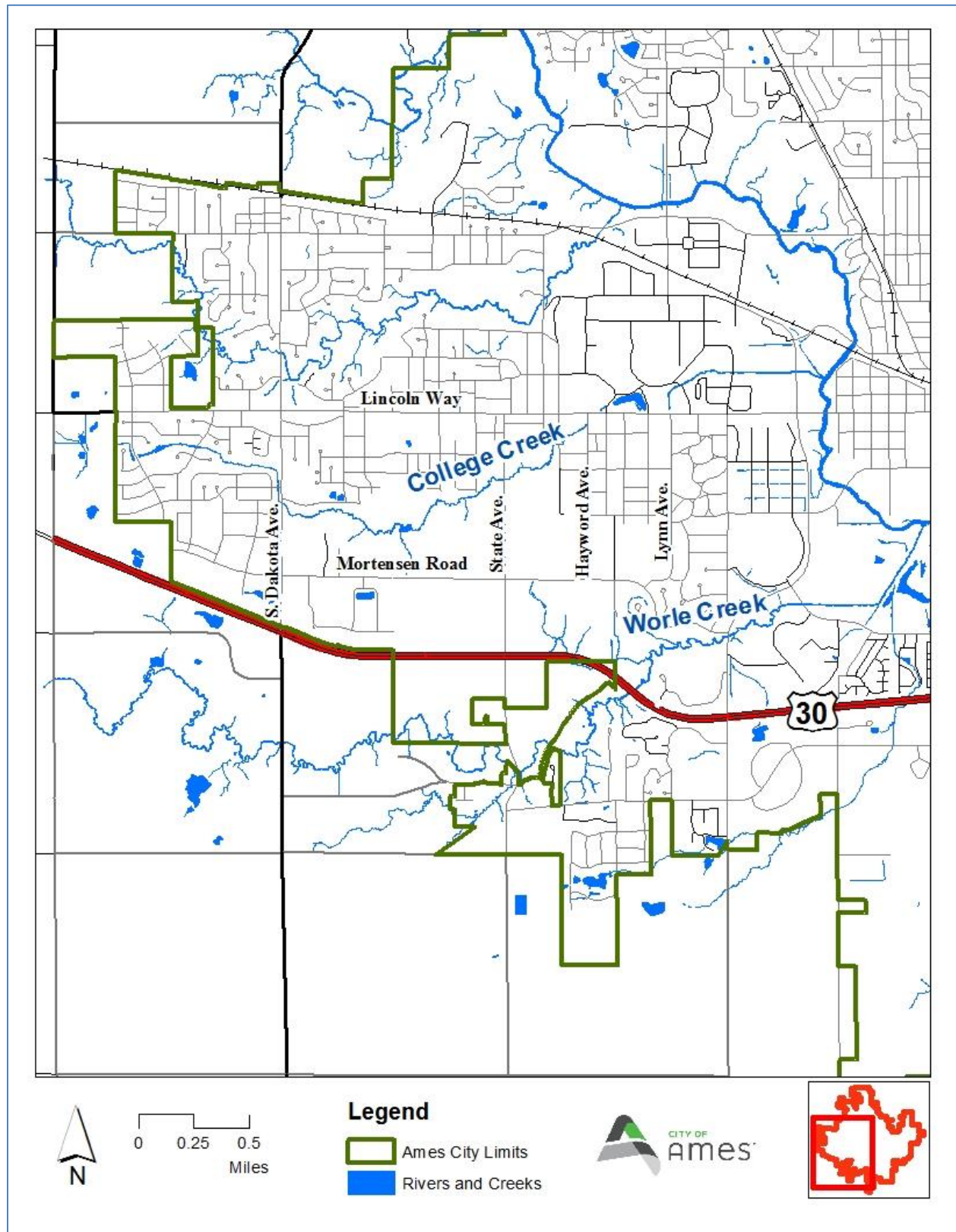
MANAGER’S RECOMMENDED ACTION:

The amendments that adopt the new Flood Insurance Study and Flood Insurance Rate Maps and that delete the references to NGVD 29 are required to stay in compliance with the National Flood Insurance Program. The amendment to establish the fee is consistent with the direction of the City Council during adoption of the annual budget.

The amendments that redefine “development” and create new definitions for “minor project” and “routine maintenance of existing buildings and facilities” are optional but come recommended by the IDNR. This exemption will be useful to reduce the time and burden on customers and staff for seemingly innocuous projects.

Therefore, it is the recommendation of the City Manager that the City Council accept Alternative #1, thereby amending Chapter 9 of the Ames *Municipal Code* as shown in Attachment 2.

ATTACHMENT 1



ATTACHMENT 2

Delete Section 9.2(2) entirely and replace with:

Section 9.2(2) The Story County, Iowa and Incorporated Areas Flood Insurance Rate Map (FIRM), City of Ames, Panels 19169C0135E, 140E, 141E, 142E, 155E, 161E, 162E, 164E, 168E, 170E, 276E and 277E, dated February 20, 2008 and Panels 137F, 139F, 143F, 144F, 163F, 256F and 257F, dated October 16, 2014, which were prepared as part of the Flood Insurance Study for Story County and digital FIRM equivalents are hereby adopted by reference and declared to be the Official Flood Plain Zoning Map.

Amend Section 9.5(2)(c) as shown:

(c) Non-residential buildings. All new and substantially improved non-residential buildings shall have the lowest floor (including basement) elevated a minimum of three (3) feet above the base flood elevation level, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer registered in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood elevation level, and that the structure, below the base flood elevation level, is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation (~~in relation to National Geodetic Vertical Datum NGVD 1929~~) to which any structures are floodproofed shall be maintained by the Flood Plain Administrator.

Amend Section 9.7 as shown:

(2) Flood Plain Development Permit.

(a) Permit Required. A Flood Plain Development Permit issued by the Administrator shall be secured prior to initiation of any flood plain development. Development is defined in Section 9.11 ~~means any man-made change to improved or unimproved real estate, including but not limited to buildings or other structures, mining, filling, grading, paving, excavation or drilling operations, including the placement of factory-built homes.~~

(b) Application for Permit. Application for a Flood Plain Development Permit shall be made on forms supplied by the Administrator and shall include the following information:

- (i) Description of the work to be covered by the permit for which application is to be made.
- (ii) Description of the land on which the proposed work is to be done (i.e., lot, block, tract, street address, or similar description) that will readily identify and locate the work to be done.
- (iii) Identification of the use or occupancy for which the proposed work is intended.
- (iv) The base flood elevation (BFE).
- (v) Elevation (~~in relation to National Geodetic Vertical Datum NGVD29~~) of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.

- (vi) For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.
- (vii) Such other information as the Administrator deems reasonably necessary for the purpose of this ordinance.
- (viii) The required fee, as determined by the City Council, for any new construction, substantial improvement, or any development on any parcel which contains a portion of the Floodway.

Amend Section 9.11 *Definitions* to incorporate the following definitions:

Development. Any man-made change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, or placement of factory-built homes. “Development” does not include “minor projects” or “routine maintenance of existing buildings and facilities” as defined in this section. It also does not include gardening, plowing, and similar practices that do not involve filling, grading.

Minor Project. Small development activities (except for filling, grading and excavating) valued at less than \$500.

Routine Maintenance of Existing Buildings and Facilities. Repairs necessary to keep a structure in a safe and habitable condition that do not trigger a building permit, provided they are not associated with a general improvement of the structure or repair of a damaged structure. Such repairs include:

- a. Normal maintenance of structures such as re-roofing, replacing roofing tiles and replacing siding;
- b. Exterior and interior painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work;
- c. Basement sealing;
- d. Repairing or replacing damaged or broken window panes;
- e. Repairing plumbing systems, electrical systems, heating or air conditioning systems and repairing wells or septic systems.

ORDINANCE NO.

AN ORDINANCE TO AMEND THE MUNICIPAL CODE OF THE CITY OF AMES, IOWA, BY REPEALING SECTIONS 9.2(2), 9.5(2)(C), 9.7 (2)(a), (b)(i)(ii)(iii)(iv)(v)(vi)(vii), 9.11 (4) AND ENACTING A NEW SECTIONS 9.2(2), 9.5(2)(C), 9.7 (2)(a), (b)(i)(ii)(iii)(iv)(v)(vi)(vii)(viii), 9.11 (4), AND RENUMBERING SECTION 9.11 TO ACCOMMODATE TWO NEW DEFINITIONS THEREOF, FOR THE PURPOSE OF AMENDING FLOOD PLAIN DEVELOPMENT REGULATIONS; REPEALING ANY AND ALL ORDINANCES OR PARTS OF ORDINANCES IN CONFLICT TO THE EXTENT OF SUCH CONFLICT; AND ESTABLISHING AN EFFECTIVE DATE.

BE IT ENACTED, by the City Council for the City of Ames, Iowa, that:

Section One. The Municipal Code of the City of Ames, Iowa shall be and the same is hereby amended by repealing Sections 9.2(2), 9.5(2)(C), 9.7 (2)(a), (b)(i)(ii)(iii)(iv)(v)(vi)(vii), 9.11 (4) and enacting new Sections 9.2(2), 9.5(2)(C), 9.7 (2)(a), (b)(i)(ii)(iii)(iv)(v)(vi)(vii)(viii), 9.11 (4) and renumbering Section 9.11 to accommodate two new definitions as follows:

“Sec. 9.2. GENERAL PROVISIONS.

...

(2) **Establishment of Official Flood Plain Zoning Map.** The Story County, Iowa and Incorporated Areas Flood Insurance Rate Map (FIRM), City of Ames, Panels 19169C0135E, 140E, 141E, 142E, 155E, 161E, 162E, 164E, 168E, 170E, 276E and 277E, dated February 20, 2008 and Panels 137F, 139F, 143F, 144F, 163F, 256F and 257F, dated October 16, 2014, which were prepared as part of the Flood Insurance Study for Story County and digital FIRM equivalents are hereby adopted by reference and declared to be the Official Flood Plain Zoning Map.

Sec. 9.5. FLOODWAY FRINGE OVERLAY DISTRICT.

...

(2) **Performance Standards.** All uses must be consistent with the need to minimize flood damage and shall meet the following applicable performance standards.

...

(c) **Non-residential buildings.** All new and substantially improved non-residential buildings Shall have the lowest floor (including basement) elevated a minimum of three (3) feet above the base flood elevation level, or together with attendant utility and sanitary systems, be floodproofed to such a level. When floodproofing is utilized, a professional engineer licensed in the State of Iowa shall certify that the floodproofing methods used are adequate to withstand the flood depths, pressures, velocities, impact and uplift forces and other factors associated with the base flood elevation level, and that the structure, below the base flood elevation level, is watertight with walls substantially impermeable to the passage of water. A record of the certification indicating the specific elevation to which any structures are floodproofed shall be maintained by the Flood Plain Administrator.

...

Sec. 9.7. ADMINISTRATION.

- (2) Flood Plain Development Permit.
- (a) Permit Required. A Flood Plain Development Permit issued by the Administrator shall be secured prior to initiation of any flood plain development. Development is defined in Section 9.11
- (b) Application for Permit. Application for a Flood Plain Development Permit shall be made on forms supplied by the Administrator and shall include the following information:
- (i) Description of the work to be covered by the permit for which application is to be made.
- (ii) Description of the land on which the proposed work is to be done (i.e., lot, block, tract, street address, or similar description) that will readily identify and locate the work to be done.
- (iii) Identification of the use or occupancy for which the proposed work is intended.
- (iv) The base flood elevation (BFE).
- (v) Elevation of the lowest floor (including basement) of buildings or of the level to which a building is to be floodproofed.
- (vi) For buildings being improved or rebuilt, the estimated cost of improvements and market value of the building prior to the improvements.
- (vii) Such other information as the Administrator deems reasonably necessary for the purpose of this ordinance.
- (viii) The required fee, as determined by the City Council, for any new construction, substantial improvement, or any development on any parcel which contains a portion of the Floodway.

...

Sec. 9.11. DEFINITIONS.

...

- (4) Development. Any man-made change to improved or unimproved real estate, including but not limited to building or other structures, mining, dredging, filling, grading, paving, excavation, drilling operations, storage of equipment or materials, or placement of factory-built homes. "Development" does not include "minor projects" or "routine maintenance of existing buildings and facilities" as defined in this section. It also does not include gardening, plowing, and similar practices that do not involve filling, grading, or excavating.

...

- (21) Minor Project. Small development activities (except for filling, grading and excavating) valued at less than \$500.

...

- (25) Routine Maintenance of Existing Buildings and Facilities. Repairs necessary to keep a structure in a safe and habitable condition that do not trigger a building permit, provided they are not associated with a general improvement of the structure or repair of a damaged structure. Such repairs include:

- (a) Normal maintenance of structures such as re-roofing, replacing roofing tiles and replacing siding;
- (b) Exterior and interior painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work;
- (c) Basement sealing;
- (d) Repairing or replacing damaged or broken window panes;
- (e) Repairing plumbing systems, electrical systems, heating or air conditioning systems and repairing wells or septic systems.

..."

Section Two. All ordinances, or parts of ordinances, in conflict herewith are hereby repealed to the extent of such conflict, if any.

Section Three. This ordinance shall be in full force and effect from and after its passage and publication as required by law.

Passed this _____ day of _____, _____.

Diane R. Voss, City Clerk

Ann H. Campbell, Mayor