

Floodplain Management Overlay Zoning Ordinance

Staff Report to City Council

October 2015

Background

After a robust planning and public engagement process, City Council approved a Flood Mitigation Plan in March 2007 that included fifty-six (56) individual project recommendations to improve floodplain¹ management within the City. Project #14 of the Flood Mitigation Plan specifically recommends creating and adopting a floodplain management overlay zoning ordinance.

In May 2007, City Planning Commission passed a resolution directing staff to draft a floodplain management ordinance and established a sub-committee to work with staff on this effort. In 2008 and 2009, City Staff drafted several ordinance versions and held several staff meetings; however, to this date a floodplain management overlay zoning ordinance has not been established.

Factors that have contributed to the delayed ordinance development process include, competing demands on staff time and numerous Planning Commission priorities, as well as the lengthy process of flood insurance rate map updates by the Federal Emergency Management Agency (FEMA). The expectation that the FEMA map update process would be completed within two years delayed ordinance development. Staff anticipated that ordinance development would begin once the map updates were complete. The map update process ultimately spanned seven years, from 2005 to 2012.

One of the purposes of adopting a local floodplain management ordinance is to improve consistency by extending restrictions similar to those imposed by the State of Michigan to all floodplain properties within the City. The Michigan Department of Environmental Quality (MDEQ) prohibits residential construction in the floodway, and requires permits for new fill or structures, and other floodplain modifications. However, the MDEQ only has jurisdiction where the contributing drainage area is greater than 2 square miles. The currently mapped floodplain within the City contains 1035 Parcels and 513 Buildings (about 60% are residential structures), and covers 2.79 square miles (10% of the City). Of these, 650 Parcels (63% of the total parcels in the floodplain), and 249 Buildings (49%) are not regulated by MDEQ. Many of these unregulated properties, with a drainage area of less than 2 square miles, are located in the Allen Creek floodplain and are also within a Historic District.

Existing Floodplain Regulations

Despite the lack of a floodplain management ordinance, there are existing regulations that govern development in the floodplain. Floodplain management involves a complex mix of development regulations at the federal, state, county and city levels of government. It is necessary that the City enforce the floodplain regulations found in the Michigan Building Code for participation in the Federal Emergency Management Agency (FEMA) National Flood Insurance Program (NFIP).

¹ The floodplain area has a 1% chance of flooding every year. The floodplain consists of two parts, the floodway and the floodfringe. The floodway is the center portion of the floodplain where water flows with a destructive force; the floodfringe is the remainder of the floodplain outside of the floodway.

A simplified overview of existing floodplain management requirements are provided below. Though a local floodplain ordinance could impose stricter development regulations, the City may not regulate to a lower standard than the minimum NFIP requirements.

Existing Regulations for development in the floodplain, applicable to floodway and floodfringe:

- All development in the City requires permit approval from Planning and Development Services.
- Construction within a County easement (typically 30-feet on either side of the centerline of all above-ground and underground creeks) requires permit approval from the Washtenaw County Water Resources Commissioner.
- Construction within the floodplain requires permit approval from the Michigan Department of Environmental Quality (MDEQ) for all areas under MDEQ jurisdiction. Construction may not obstruct flood flow in a manner that would cause a rise in flood elevations at the property line.
- State, County, and City all require no net loss of flood storage capacity; i.e., any proposed fill must be mitigated by removing an equal volume (some exceptions).

Existing Regulations for development in the floodway:

- The State prohibits residential uses in the floodway in areas under the jurisdiction of the MDEQ.
- For all development in the floodway, the developer must submit an engineering study certifying that the development will not raise the base flood elevation (BFE).
- The lowest floor of any new non-residential structure must be elevated or flood-proofed to an elevation 1 foot above the elevation that has a 1% chance of flooding every year.

Existing Regulations for new buildings in floodfringe:

- The lowest floor of any new residential structure must be elevated to 1 foot above the elevation that has a 1% chance of flooding every year.
- The lowest floor of any new non-residential structure must be elevated or flood-proofed to 1 foot above the elevation that has a 1% chance of flooding every year.

Existing Regulations for substantially improved buildings (i.e., buildings with proposed improvements valued higher than 50% of the market value of the structure):

- All structures that are proposed to be improved in the floodplain must meet standards for new buildings if the value of the proposed improvements exceeds 50% of the market value of the structure.
- Contributing structures within Historic Districts are exempt from the substantial improvement requirement, provided that the historic character of the structure is maintained and there are no changes to the building footprint.

Current Draft Ordinance Status

Pursuant to developing some preliminary draft ordinance content, City of Ann Arbor Systems Planning staff submitted an application for assistance with creation of a local floodplain management overlay ordinance to the Georgetown Climate Center in January 2014. The application to Georgetown, which solicited communities interested in in-kind legal and policy support for climate adaptation projects, was referred to the University of Michigan (U of M) – Dow Sustainability Fellowship Program. Five U of M graduate students received a grant to work with City staff to prepare a draft Floodplain Management Overlay Ordinance and a White Paper to justify the benefits of adopting the draft ordinance. The five U of M graduate students worked with City Staff throughout the fall term of 2014 to deliver the draft ordinance and white paper. The U of M graduate students based their work on an outline of the proposed ordinance that was prepared by the Stormwater and Floodplain Programs Coordinator along with the City Attorney’s Office. One of the challenges in drafting this ordinance has been the lack of similar, comprehensive floodplain ordinances in other municipalities in Michigan.

The Stormwater and Floodplain Programs Coordinator has reviewed the student draft ordinance and determined that while the student work was helpful in advancing the ordinance development process, many edits are necessary prior to beginning the full City staff review process. Additionally, preliminary legal review by the City Attorney’s Office is necessary before a full staff review can commence. However, the Planning Commission and City Council have not identified the floodplain management overlay ordinance as a priority task.

Draft Ordinance Content Goals

City staff has identified some goals for inclusion in the draft ordinance. The primary guidance in developing the draft floodplain management overlay zoning ordinance is the 2007 City of Ann Arbor Flood Mitigation Plan. The Ordinance is intended to incorporate as many of the recommendations from the Flood Mitigation Plan as is feasible.

Floodplain Management Zoning Overlay Ordinance Applicability:

- The floodplain management zoning overlay district would include parcels touching the floodplain or with 50-feet of the floodplain (consistent with the current permit review process).
- The ordinance would apply to projects requiring building permits or going through the site plan approval process.
- The ordinance would have no impact on maintaining existing structures when no changes are being proposed.
- The ordinance would have little, or no, impact on historic structures. Existing historic structures are currently, and would remain, exempt from the substantial improvement requirement, unless the building footprint is expanded.
- The ordinance would include a “Using This Ordinance” section to assist petitioners through the process.
- Floodplain management requirements already exist at the federal, state, county, and city levels; the ordinance requirements would not regulate to a lower standard than the minimum NFIP requirements.

2007 City of Ann Arbor Flood Mitigation Plan recommendations to be included in the draft ordinance:

- #17 – Additional Freeboard
- #19 – Cumulative Improvement Standard
- #21 – Addition Improvement Standard
- #22 – Flood Fringe Limits
- #23 – Equivalent Compensation
- #25 – Freestanding Structures and Obstructions
- #26 – Prohibit Floodway Development
- #43 – Higher Standards for New Critical Facilities

Proposed restrictions and standards to be imposed within the floodway are summarized below:

NOTE: The currently mapped floodway, within the City, contains approximately 730 Parcels and 240 Buildings.

- No new structures
- No additions to existing structures
- No new residential uses – This restriction already exists where the State has jurisdiction, but would be a new restriction for approximately 460 Parcels, and 130 Buildings that are not regulated by MDEQ.
- No new critical facilities (e.g., Fire Stations, Hospitals, etc.)
- No new structures without foundations (e.g., construction trailer)
- No new accessory structures
- No new parking where flood depth is greater than two feet
- Incorporate similar approval standards as currently used by the State.
- Exemption section for redevelopment where the redevelopment results in less floodway occupation and improved safety.
- Additional Freeboard - Require elevation or floodproofing of structures to one foot above the elevation that has a 0.2% chance of flooding every year instead of the 1% elevation currently used. Enforcing to this slightly higher elevation (typically around 1 foot higher) acknowledges climate change, as more severe storm events are predicted.

Proposed restrictions and standards to be imposed within the floodfringe are summarized below:

NOTE: There are very few changes from the current requirements pertaining to the floodfringe. The currently mapped floodfringe, within the City, contains approximately 280 Buildings.

- No new critical facilities.
- No new structures without foundations
- Limit storage of hazardous materials.
- Additional Freeboard - Require elevation or floodproofing of structures to one foot above the elevation that has a 0.2% chance of flooding every year to acknowledge climate change.

Process for Ordinance Development

An initial, draft timeline depicting the process for development of a floodplain management overlay zoning ordinance has been prepared (attached). The proposed process includes involvement from: city staff; the community at large and identified stakeholders; advisory groups including the Ordinance Revisions Committee (ORC), Historic District Commission (HDC), and the City Planning Commission (CPC); and, City Council for final ordinance approval. Staff has identified public engagement as a crucial element of the ordinance development process in order to provide the opportunity for stakeholders, community leaders and residents to share their reaction to draft ordinance content before final approval.

The public engagement component of the floodplain management overlay zoning ordinance development will engage the following groups over the course of the project:

(Note that the proposed ordinance development process and public engagement strategy is preliminary and would be subject to review and further refinement following the selection of a consultant for public engagement support.)

- ***Working Group***

- Consisting of city staff (primary involvement from Systems Planning, Planning and Development and the Attorney’s Office) and potentially a consultant to manage public engagement.
- Ten meetings
- Working Group activities may include, but are not limited to:
 - i. Determine appropriate stakeholders to engage.
 - ii. Correspond with stakeholder groups and manage contact lists.
 - iii. Prepare agendas and discussion summaries for meetings throughout the process.
 - iv. Draft, review and edit proposed ordinance text.
 - v. Prepare graphic materials (i.e. maps, illustrations)
 - vi. Review, comment on and edit materials.
 - vii. Advertise public engagement opportunities (i.e. press releases, newsletters, city calendar, social media)
 - viii. Organize meeting logistics (space reservation, equipment provisioning).
 - ix. Facilitate and present at public meetings.
 - x. Prepare content for distribution to the public (i.e. PowerPoint presentations, maps, handouts).
 - xi. Summarize results from public/community meetings and stakeholder focus groups.
 - xii. Maintain a website for project updates and materials.

- ***Public/Community***

- Consisting of any and all city residents, stakeholders and others interested in floodplain management and stormwater issues.
- One city-wide meeting
- Goals for city-wide meeting:
 - i. Opportunity for all interested parties to attend to learn about the floodplain ordinance development process, and to identify whether or not they may be potentially affected
 - ii. Provide background on the current ordinance and regulations
 - iii. Provide overview of the ordinance development process
 - iv. Identify affected parties
 - v. Provide an opportunity for open discussion and community reaction to the draft ordinance
- **Stakeholder Groups**
 - Consisting of identified groups with a vested interest in floodplain management issues, and those potentially affected by the ordinance
 - Includes representation from: residents, homeowners, and property owners; city boards and commissions; creekshed groups; and, realtors, remodelers, contractors and developers
 - One round of stakeholder group meetings will be conducted
 - Goals of stakeholder/ focus groups:
 - i. Opportunity for focused discussion with those potentially affected by the ordinance
 - ii. Review and comment on draft ordinance content, specific to identified interests

Based on the draft timeline, identified strategy, and process for zoning ordinance approval, the estimated completion of an approved ordinance spans from November 2015 through March 2017. Staff involvement for completion of this effort is estimated at 600+ total hours (estimated cost of \$35,000). A public engagement consultant will be needed, budget estimated at \$25,000, and roughly 125 hours. The estimated total project budget is \$60,000.

Competing demands on staff time must be considered in any directive for staff to reprioritize workload. Items that would likely be delayed or otherwise impacted include: the Allen Creek Greenway Master Plan; the Allen Creek Railroad Berm Opening; Downtown amendments for premiums; Downtown amendments for edge properties; and the Zoning Ordinance Reorganization (ZORO) project. Current development proposals such as South Pond and Nixon Farms, as well as future site plan reviews for stormwater and floodplain management and legal matters related to development proposals would also be affected as the same staff resources for these items would be needed for this effort. Additionally, with the very recent retirement of the City's Planning Manager, it is anticipated that more time will be needed by staff from the Systems Planning Unit, City Attorney's Office and Planning and Development Unit who would be working on this effort for development related items, issues, questions, and background, leaving less time available for all other work items. As a result, the timeliness of ongoing, development-related issues being resolved may suffer.

Additional work to be completed

Once the proposed ordinance is completed by the Stormwater and Floodplain Programs Coordinator, the City Attorney's Office will revise and review it and provide preliminary legal advice. The proposed ordinance will then be reviewed by development review staff City-wide. Although the White Paper provided by the U of M graduate students provided an overview of some legal issues, legal analysis of the specific ordinance will be necessary.

Relationship/Interaction of Community Rating System and Floodplain Ordinance

The National Flood Insurance Program's (NFIP) Community Rating System (CRS) is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum NFIP requirements.

As a result, flood insurance premium rates are discounted to reflect the reduced flood risk resulting from the community actions meeting the three goals of the CRS:

1. Reduce flood damage to insurable property;
2. Strengthen and support the insurance aspects of the NFIP, and
3. Encourage a comprehensive approach to floodplain management.

Adoption of a local floodplain management ordinance is not required to join FEMA's CRS program. However, adoption of higher standards within a local floodplain ordinance could significantly improve the City's rating within the CRS.

Joining the CRS is a recommendation of the City's 2007 Flood Mitigation Plan. Applying for the CRS program requires significant documentation and multiple steps through the MDEQ, FEMA, and the Insurance Services Office, Inc. (ISO). The City of Ann Arbor began the CRS application process in 2009; the process generally takes one to two years to complete. At our request, in September of 2009 the MDEQ conducted a review of the City's flood management activities, which is a required element of the CRS application process. In March of 2010, the City of Ann Arbor sent a letter to FEMA expressing interest in entering the CRS. FEMA review of the City's request indicated that a past building permit issuance might have been in violation of FEMA regulations. FEMA will not move forward with a CRS application if a community has any violations; however, through a process involving a detailed hydrologic study and a floodplain map amendment, this building permit issue was resolved in December 2013.

At the City's request, the MDEQ conducted another review of the City's flood management activities. As a result of this review FEMA identified several additional potential violations from past development. As of September 2015, the City has successfully resolved the remaining potential violations.

City staff intends to restart the CRS application process in October 2015. City staff anticipates a one-and-a-half to two-year application review cycle prior to becoming a CRS community.

Based on the current floodplain management practices by the City, staff anticipates entering the CRS with a score of 8, which would result in residents receiving a 10% discount on flood insurance policies within the City. Adopting the staff proposed floodplain management overlay ordinance would likely take the City down to a score of 7 (15% discount) or 6 (20% discount), depending on what standards are included in an approved floodplain management overlay zoning ordinance.