



DEPARTMENT OF PUBLIC WORKS STAFF MEMORANDUM

DATE: July 20, 2017

TO: Mark Perkins, City Administrator

CC: Jim Heines, Director of Public Works

FROM: Matt Wohlberg, P.E., City Engineer

SUBJECT: Recommended Revisions to Chapter 425 Stormwater Regulations

The City's Stormwater Committee and City staff propose subtle yet substantial revisions to the City's Stormwater Regulations (Chapter 425 of the Municipal Code) in an effort to simplify the regulation and protect the residents of Creve Coeur from the effects of stormwater runoff.

Background

The City of Creve Coeur, dozens of other municipalities in the St. Louis area, and the Metropolitan St. Louis Sewer District (MSD) together hold a permit for stormwater discharge under the federal Clean Water Act. As "co-permittees," the City and MSD work together to meet the requirements of this permit.

MSD developed a set of stormwater management standards for development that its co-permittees (including Creve Coeur) have agreed to adopt and enforce. These MSD regulations were adopted by the City and make up the substantial majority of Chapter 425 of the Municipal Code. These regulations apply to projects and development that disturbs one acre or more of land, which would include most commercial and residential subdivision development. Development of a single residential lot would generally be considered too small for the MSD regulations to apply.

Because Creve Coeur is predominately a built-out residential community, development of a single residential lots is more common in Creve Coeur than is large-scale subdivision development. Such "infill development" is too small to require stormwater detention according to the MSD/City regulations. Unfortunately, such development is often large enough and disruptive enough to generate and/or redirect additional stormwater runoff onto adjacent properties. This runoff can cause erosion, ponding, or even basement flooding for the affected neighbors.

Calls for Action

Attempts to address the impact of residential development began about ten years ago. At that time, the Stormwater Committee recommended a regulation to apply detention and water quality standards to residential developments. This approach mirrored what the City of Frontenac had recently enacted, but it was found to be too restrictive and its feasibility was questioned. The proposed regulation ultimately failed in 2010.

The impacts of infill residential development on neighboring properties did not go away. The rebounding housing market brought additional development, and this fueled renewed calls for a

means to mitigate the impacts that one's development can be anticipated to have on others. Those calls to action are found in key planning documents that have been recently adopted by the City, including the Comprehensive Plan Creve Coeur 2030 and the Strategic Plan FY2018-2020.

- *Comprehensive Plan.* The comprehensive plan identifies the adoption of stormwater regulations for lots measuring less than one acre as one of the “early action items” for the implementation of the Plan.
- *Strategic Plan.* The strategic plan lists the development, adoption, and implementation of regulations for better management of stormwater from residential development as a one of its near-term goals for sustainability.

Excerpts of each plan are attached for reference.

Proposed Stormwater Regulation Changes

The City's Stormwater Committee and City staff propose to protect neighboring properties from residential development through a revision to Chapter 425 of the Municipal Code. The proposed revisions include the requirement that large-scale residential development be completed responsibly with regard to stormwater runoff. In particular, new developments would need to be designed and constructed such that it provides no new stormwater impacts to neighboring properties. In other words, residential developments need to find a way to mitigate the additional stormwater runoff that they will create.

Applicable Projects. This requirement is proposed for larger residential development that would not otherwise trigger review and mitigation requirements through MSD regulations. Examples of development to which the proposed changes would affect include:

- New homes
- Tear-down/rebuild homes
- Land disturbance permits
- New swimming pools
- Garage additions

These types of projects have been found by staff to be large enough to potentially impact the stormwater runoff to neighboring properties. These projects are also large enough to typically need engineered drawings for their design, permit, and construction. The proposed revisions to Chapter 425 require that the mitigation of the added or re-directed runoff become a part of the project's design. Staff finds it unlikely that the proposed requirements would add the need to design a project that otherwise would not have needed plans.

Staff found that the proposed regulation would have applied to 37 projects in 2016. Of these were 14 new homes or teardown/rebuild projects, 14 pools, and 3 garage additions. The remaining 6 projects were land disturbance permits involving less than one acre of disturbance.

Mitigation Costs. The cost to manage the additional stormwater from a project will vary greatly depending upon factors such as the scope of the project, the amount of additional stormwater, and the approach taken to manage the stormwater. In general, the cost to manage the additional stormwater should increase along with the amount of new impervious surface involved with the project.

Assuming that the mitigation is added to a project that increases the impervious cover by 1,000 square feet, staff estimates the following costs associated with these mitigation techniques:

- Rain barrels (est. 8 required).....\$ 1,200
- Rain garden\$ 2,000 – \$ 5,000
- Replace 1,000 SF concrete with pervious pavers\$ 17,000

Please note that these are rough estimates and not based upon specific quotes.

Staffing. The proposed changes have been drafted with consideration for the City’s existing practices and permits. The revisions will require some additional review time for the applicable project applications and may add a feature to inspect during construction, but no new permits or processes are required to implement the new requirements.

Staff estimates that the time required to review and inspect any stormwater mitigation features will be partially balanced by the time saved in consulting with neighbors of recent development to determine how to handle the new stormwater runoff that they are receiving.

Additional Aspects of the Revisions

While the substantive revision to Chapter 425 is the addition of requirements to create no new stormwater impacts for neighboring properties, the most notable change to the chapter may be its length. The current Chapter 425 is an adaptation of the MSD regulations from 1997 and restates much of these regulations verbatim. Consequently, the existing Chapter 425 is relatively long, can be difficult to navigate, and contains some provisions that are no longer applicable. The proposed revision to Chapter 425 adopts the current (2006) MSD regulations by reference, both clarifying and shortening the City’s requirements.

The proposed revision to Chapter 425 also includes some reorganization of the order of its provisions. The sections pertaining to applicability and defining no adverse effect have been moved to the beginning of the chapter. The intent is to provide clear direction to the reader as quickly as possible.

Reviews and Recommendations

Staff has offered the proposed regulation to several of the City’s boards and commissions for their review and comment.

Stormwater Committee Recommendation. The Stormwater Committee has considered the conceptual regulation change for over a year and has shaped the proposed revisions to Chapter 425 for several months. The Committee voted its unanimous recommendation for these revisions at the Committee’s meeting on May 10, 2017. The draft meeting summary from this meeting is attached for reference.

Planning and Zoning Commission Recommendation. Members of the Stormwater Committee and staff presented the proposed revisions to Chapter 425 to the Planning and Zoning Commission at its meetings on June 19, 2017, and July 17, 2017. At their meeting on July 17, the Planning and Zoning Commission voted unanimously to recommend that the City Council approve the proposed revisions as drafted.

Energy and Environment Committee. The proposed revisions to Chapter 425 have been offered to the Energy and Environment Committee for their information, but the Committee has not been able to hold a meeting recently and has therefore not yet considered the proposal.

Home Builders Association (HBA). Staff sent a copy of the proposal to the HBA for review and comment in June, and staff has discussed portions of it with the HBA in the meantime, but the HBA has not yet offered any comments regarding the proposal.

Schedule for Public Review and Adoption

The proposed revisions will be required to be posted for public review for at least ninety (90) days due to the change from a direct statement of the stormwater requirements to a reference of the MSD regulations. Upon a favorable outcome at the City Council work session, staff would post the necessary documents for review.

The revised regulations would need to be adopted through an ordinance of the City Council. The ninety-day public comment period would mean that the earliest approval of these revisions would be either in late October or early November 2017.

Recommendation

With the support of the Stormwater Committee and the concurrence from the Planning and Zoning Commission, staff has developed the proposed revisions to the City's stormwater regulations with the goals of simplifying the regulations and of providing protection for neighboring properties in a way that is fair to the developer. The City encourages property improvements, but these improvements should be responsible so that they do not create a stormwater-related issue for neighbors. At the same time, the proposed regulation calls for the mitigation of only the *change* to the runoff that is created by a project.

- Attachments:
- Excerpts from Comprehensive Plan Creve Coeur 2030 (with highlights added for emphasis)
 - Excerpts from Creve Coeur Strategic Plan FY2018-2020 (with highlights added for emphasis)
 - Draft meeting summary from the May 10, 2017, Stormwater Committee meeting (with the Committee recommendation for the revised Chapter 425 highlighted for emphasis)
 - Proposed revision to Chapter 425 Stormwater Regulation ("clean copy")
 - List of key comments from the Stormwater Committee and staff regarding the proposed revisions, and their corresponding responses
 - Proposed revision to Chapter 425 Stormwater Regulation ("redline copy")
 - Current Chapter 425 Stormwater Regulation