

CITY OF GOLDEN VALLEY
FLOOD MITIGATION COST SHARE REIMBURSEMENT POLICY
March 12, 2019

Purpose:

The purpose of this policy is to meet the City's goal to increase community resilience by reducing flood risk and flood damages to properties located in flood prone areas throughout the City. Reducing flood risk and flood damage citywide will improve public health and safety, reduce public liability and cost, and preserve economic values, benefitting the entire community.

Background:

The City has historically experienced community-wide flooding and flood damage. Flooding is a natural disaster that can cause loss of life, damage to property and infrastructure, disruption to public services, and negative health and socio-economic impacts. The National Weather Service estimates flood losses in the U.S. at about \$8 billion per year.

In recent decades, the Minnesota Department of Natural Resources Climatology Office has observed more annual precipitation and more extreme rain events in this region than in previous decades. Precipitation models used by government agencies have been updated to reflect these observations.

The Bassett Creek Watershed Management Commission (BCWMC) developed a watershed-wide flood model based on updated topography and precipitation data (the "Model") detailed in its report *Bassett Creek Hydrologic and Hydraulic Analyses, Phase 2 XPSWMM Model Report, August 7, 2017*. According to the Model, the flood depths in many areas of the City are now higher than previously mapped by the Federal Emergency Management Agency (FEMA). As a result, there is more flood risk and vulnerability now than in years past, and more properties in the City are identified as being at risk of flooding.

The areas of increased flood risk are located near Bassett Creek and its tributaries and in localized flood prone areas spread throughout the City. This is shown in Figure 3-20 of the *City of Golden Valley Surface Water Management Plan*. Flood risk across the City varies and the Model projects that flood depths may reach up to 5 feet in some areas.

The City has a comprehensive floodplain management program and has completed numerous public flood mitigation projects over the years to help protect life and property. In addition to the City's efforts, property owners are encouraged to protect their homes from flood damage through retrofitting measures known as floodproofing or flood protection barriers. These measures may involve sealing up a door or window opening in the lowest level of the home or constructing a levee or floodwall around the outside of the home.

In order to provide incentives to property owners to invest in the protection of their homes, and reduce the liability and cost to the public of major flooding events, the City desires to implement a flood mitigation cost share reimbursement program (the "Program"). The intent of this policy is to clearly define and outline the requirements of the Program. The requirements set forth in this policy will further the City's resilience and sustainability, water resources, and housing goals listed in its 2040 Comprehensive Plan.

Eligibility:

This policy applies to existing primary structures located on residential single-family and duplex properties that meet at least one of the following two criteria:

1. Is identified as being at risk of flooding in a report or study completed or approved by the City, BCWMC, State, or Federal agency (examples include the 2016 Medicine Lake Road & Winnetka Avenue Area Long Term Flood Mitigation Study, the 2002 Flood Damage Reduction Study, and drainage area studies completed for developments); or
2. Located in or adjacent to the floodplain and has a low opening elevation or lowest adjacent grade elevation that is below the base flood elevation as evidenced by an elevation certificate completed by a professional surveyor licensed in the State of Minnesota.

Properties meeting the eligibility criteria above that have completed flood mitigation projects prior to adoption of this policy shall not be eligible for participation in the cost share reimbursement program.

This policy does not apply to properties located outside the floodplain that have experienced water intrusion from groundwater or sub-surface sources as determined by the City Engineer based on available evidence and data.

This policy does not apply to new construction, or to accessory structures identified as being at risk of flooding.

Application Process:

Applications must be received by October 1 of each year for implementation the following year. Applications shall be submitted on the form attached hereto as Exhibit A and must contain all required information, plans and exhibits, including the following:

1. Elevation certificate completed by professional surveyor or engineer licensed in the State of Minnesota.
2. Type of flood mitigation measure proposed and brief project description.
3. Plan completed by a licensed design professional or contractor.

4. Planning level cost estimate based on consultation with a professional engineer, architect, or contractor.
5. If applicable, supporting documentation showing evidence of previous flood damage (insurance claims, invoices, photos, etc)

The City will review and evaluate applications in October and November to determine which projects will be selected to move forward for design, permitting, and construction the following year. Applicants will be notified in writing by November 30 as to (1) whether their project was selected to move forward; (2) next steps in the process; and (3) the maximum dollar amount for which their project is eligible.

Successful applicants shall accept or reject the selection by December 31. If the City does not receive confirmation of acceptance from an applicant by December 31, the approval may be withdrawn and the funds awarded to the next eligible applicant.

Selection Criteria:

The City will select projects for participation in the program based on the following criteria, listed in order of priority.

1. Difference between base flood elevation and lowest opening elevation.
2. Difference between base flood elevation and lowest adjacent grade.
3. Difference between base flood elevation and lowest floor elevation.
4. Type of flood mitigation measure proposed.
5. Number of past flood events as evidenced by insurance claims, or similar written and photographic documentation acceptable to the City.
6. Cost of damage from past flood events as evidenced by insurance claims, or similar written and photographic documentation acceptable to the City.

If two or more projects receive the same ranking during evaluation, the earliest submitted project will be selected.

Standards for Flood Mitigation:

All projects selected for program participation must meet the following minimum requirements:

1. All plans must be completed and signed by a licensed design professional (engineer or architect licensed in the State of Minnesota) or contractor, depending on flood mitigation measure proposed.

2. Plans must conform to the guidelines listed in the FEMA Homeowner's Guide to Retrofitting (June 2014 or current version)
3. The following elements must be shown and labeled on the plan:
 - a. All applicable information from the elevation certificate
 - b. Base flood elevation
 - c. Existing and proposed topography, contours, spot elevations along foundation of home at all building corners and mid points of walls, spot elevations at property corners
 - d. Profile view and applicable details for the proposed flood mitigation solution
 - e. Cut/fill diagram showing proposed changes to flood storage volume
 - f. Architectural plans as necessary
 - g. Other information the City deems necessary to review plan
4. Flood protection barriers do not need to be certified as meeting FEMA and US Army Corps of Engineers (USACE) standards, however, they must meet all applicable federal, state, and local requirements as outlined in the floodplain and stormwater management section of City code.
5. Flood protection barriers must be located as close to the structure as possible to preserve and maintain flood storage volumes to the extent feasible.
6. The property owner, licensed design professional, or contractor must obtain all required permits and approvals from the City and any other applicable governmental entities prior to commencing work and must follow all applicable laws, statutes, codes and ordinances.
7. Flood mitigation measures must meet the City's freeboard requirements as measured from the base flood elevation in effect at the time of application. *(For example, if the base flood elevation around a pond is 902 at the time of application, and the freeboard requirement is 2 feet, then the flood mitigation measures to protect a structure must be constructed to an elevation of at least 904.)*
8. Property owners must enter into a flood mitigation agreement with the City in the form attached hereto as Exhibit B, which the City may record in the Hennepin County property records. The agreement shall specify the requirements of the reimbursement process and amount of award.

Incentive Amount:

The City will award each successful applicant a one-time reimbursement incentive of 40% of the eligible flood mitigation costs up to a maximum of \$50,000 per property. The final not-to-

exceed amount awarded to the applicant will be outlined in the flood mitigation agreement. The final reimbursement amount will be based upon actual cost once the project is complete.

Funding for the cost share reimbursement program shall come from the City's 5-year Capital Improvement Program, Storm Sewer Section, SS-34 Flood Mitigation as approved annually by City Council. Any funds remaining at the end of each program year shall accrue for use in subsequent years.

It is possible that projects approved for construction in one program year may not be completed and reimbursed until the following program year. Staff will work with applicants and the City's Finance Department to monitor the availability of funds.

Property owners may work together to propose flood proofing projects that extend across multiple properties. Costs for such projects must be divided by the owners based on the value of work performed on each property or other method as agreed upon in writing by the owners.

Definitions:

Base flood: *The flood having a one percent chance of being equaled or exceeded in any given year. This is the regulatory standard also referred to as the "100-year flood." The base flood is the national standard used by the National Flood Insurance Program (NFIP) and all Federal agencies for the purposes of requiring the purchase of flood insurance and regulating new development. Base flood elevations are typically shown on FEMA's flood insurance rate maps.*

The Bassett Creek Watershed Management Commission (BCWMC) developed a watershed-wide flood model detailed in its report "Bassett Creek Hydrologic and Hydraulic Analyses, Phase 2 XPSWMM Model Report, August 7, 2017." The base flood elevations and associated maps provided in this report have been adopted by the BCWMC and the City as part of its floodplain management code.

Base flood elevation: *The elevation of the base flood.*

Elevation Certificate: *An administrative tool developed by FEMA used to provide elevation information necessary to ensure compliance with community floodplain management ordinances. The Elevation Certificate must be completed by a land surveyor, engineer, or architect who is authorized by law to certify elevation information. This certificate is used only to certify building elevations.*

Eligible flood mitigation costs: *Flood mitigation project costs that are directly related to permitting, engineering and design, and construction of the flood mitigation measures. Costs for services, materials, or improvements that are deemed aesthetic or decorative and beyond what would be considered normal or typical will not be eligible for*

reimbursement. The City Engineer shall have the final decision on whether or not project costs are eligible.

Floodplain: Area of land inundated by a precipitation event having a 1% chance of being equaled or exceeded in any given year. The floodplain includes areas identified in the FEMA Flood Insurance Study and Flood Insurance Rate Map and the BCWMC watershed-wide flood model and report.

Freeboard: Also known as the regulatory flood protection elevation. The elevation to which uses regulated by the City's floodplain management code are required to be elevated or floodproofed (but not less than two feet above the base flood elevation).

Floodproofing: A combination of structural provisions, changes, or adjustments to properties and structures subject to flooding, primarily for the reduction or elimination of flood damages. Preferred approach is sealing the home and adjusting the grade to prevent floodwaters from entering.

Flood protection barriers: Construction of a floodwall or levee around a home to hold back floodwaters.

Flood Mitigation Agreement: An agreement between the City and the Owner that formally sets forth approval and requirements to achieve flood protection in accordance with this Policy.

Lowest adjacent grade: Elevation of the lowest ground surface that touches any of the exterior walls of the home.

Lowest floor elevation: Elevation of the lowest floor on the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure used solely for parking of vehicles, building access or storage in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable non-elevation design requirements of 44 CFR 60.3.

Lowest opening elevation: Elevation of the lowest opening of the home, typically a door or window.

Attachments/Exhibits:

Figure 1 – Map of Modeled Flood Risk

Exhibit A – Application Form

Exhibit B – Draft Flood Mitigation Agreement

Exhibit C – FEMA NFIP Elevation Certificate and Instructions