

**BOARD OF SUPERVISORS  
BUSINESS MEETING  
ACTION ITEM**

**SUBJECT:** Selma Estates Flood Mitigation

**ELECTION DISTRICT(S):** Catoctin

**CRITICAL ACTION DATE:** At the pleasure of the Board

**STAFF CONTACT(S):** Ryan Reed, Building and Development  
Alan Brewer, Building and Development

**PURPOSE:** The purpose of this item is for the Board of Supervisors (Board) to consider a flood mitigation project, including a voluntary home buyout program for certain homes in the Selma Estates development.

**RECOMMENDATION(S):** Staff recommends that the Board direct staff to apply for flood mitigation grants to allow for the acquisition of homes and localized flood mitigation improvements for individual homes within the Special Flood Hazard Area (SFHA) in the Selma Estates subdivision. Staff also recommends that the Board direct staff to pursue the use of private funding sources to supplement project costs.

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**BACKGROUND:** At the December 3, 2019 Business Meeting, the Board directed (7-0-2 Randall and Letourneau absent) staff to provide an update regarding the establishment of a process for a voluntary buyout program to address flooding issues in the Selma Estates subdivision.

Between the years of 2013 and 2018, significant flooding events were experienced by residents along Farnborough Place, Osterly Lane, Trongate Court, Berkhamstead Place, and Saxon Shore Drive. These areas lie in various portions of Sections 1, 2, and 3 of the Selma Estates community. These flooding events resulted in damage to residential structures as excessive runoff forced its way through the windows and doors and into the basements of some residences. In 2018, former Representative Barbara Comstock's office contacted the Federal Emergency Management Agency (FEMA) to initiate a re-evaluation of the floodplain boundary in the areas that had experienced the recurring flooding. FEMA found the floodplain was not properly delineated and issued a revision to the Flood Insurance Rate Map (FIRM) that became effective in June 2019 (Attachment 1). This resulted in several structures not previously located within, or in proximity to, the floodplain at the time of purchase, to have to comply with the mandatory flood insurance provisions of the National Flood Insurance Program (NFIP).

To further assess the potential for flooding, the County contracted with a third party consultant, Wood PLC. (Wood), to conduct a detailed watershed analysis. This effort more definitively characterized flood risk, determined the natural conditions that exist, and assessed potential flood mitigation alternatives. Alternatives were presented to County staff that could reduce the potential for flood loss. The analysis evaluated four remedies: 1) installing a berm; 2) increasing the capacity of stormwater infrastructure; 3) constructing a stormwater management pond in addition to increasing the capacity of the stormwater infrastructure; and 4) implementing a buyout program to remove homes from the floodplain. Of the alternatives evaluated, Wood found that the implementation of a buyout program is the most viable flood mitigation option because it removes all risk of structural flooding during a 100-year storm event. A copy of the Wood watershed analysis can be found here: [Wood Watershed Analysis](#). Detailed background information regarding this issue can be found in the December 3, 2019, Board item found [here](#).

**ISSUES:** Between 2013 and 2018, significant flooding events were experienced in the Selma Estates community. Based on the FEMA revision, effective June 2019, 14 homes are now within the SFHA, meaning that they are susceptible to a 1 percent annual chance of flooding.

Wood found that the implementation of a buyout program is the most viable flood mitigation option because it removes all risk of structural flooding during a 100-year storm event. The impact of a buyout program can vary among communities. Some advantages to a buyout program can include permanently reducing future flood risk instead of building mitigation structures that require resources to maintain, preserving open space, and reducing public costs related to flooding which can include emergency services, debris removal, as well as the emotional cost to affected property owners due to hardships associated with repeated flooding.

**Community Interest:** Staff presented the findings of the Wood watershed analysis to impacted residents at a meeting held on February 10, 2020. Also, staff attempted to meet with each impacted property owner to gauge their interest in participating in a buyout program. Some residents have expressed their desire to have their properties purchased, structures razed, and land converted to open space as that is the only viable option that removes them and their families from the potential threat of flooding. Others, however, have asked that onsite modifications on individual lots that could reduce, or even eliminate, the potential for flooding be considered so that they may remain in their homes. Grant eligible onsite modifications could include elevating the first floor of the homes and filling in the basements or minor grading around the homes. Some residents expressed concern over the significant time required to complete grant projects. Additionally, some property owners expressed concern that a buyout option may be very disruptive, pointing out that families may need to move to a location they are not familiar with, potentially farther from their place of work, and may require their children to change schools. Lastly, at the community meeting, one participant expressed concerns related to flooding not related to the project area. In summary, staff received feedback from most of the residents of the 14 homes. Residents of three homes are interested solely in the option of a buying and removing their home, and residents of three other homes are interested in anything but the option of buying and removing homes. The remaining residents are undecided and would need more specific information before making a commitment.

**Programmatic Framework:**

**Regulations:** The affected properties lie within the boundaries of the Floodplain Overlay District (FOD) and Limestone Overlay District (LOD). All work on these properties, including grading or the structure removal, must be in compliance with Sections 4-1500 (FOD) and 4-1900 (LOD) of the Revised 1993 Zoning Ordinance (R93ZO). Removal of any structure and any grading efforts within the floodplain will affect both the floodplain boundary and the floodplain depth. As such, a Conditional Letter of Map Revision (CLOMR) must be obtained from FEMA prior to conducting any work on these properties. Once all work has been completed, additional floodplain modeling and a final as-built survey will be necessary to obtain a final Letter of Map Revision (LOMR). This effort must be considered in the overall project cost, and in considering the framework of the program.

**Participation:** Staff recommends that eligibility for participation in a flood mitigation program be limited to those with structures within the floodplain boundary with a risk of damage due to flooding during a 100-year flood event. Based on the FEMA revision, effective June 2019, 14 homes are now within the SFHA. However, it is important to note that the watershed analysis conducted by Wood, which more accurately shows the limits of the SFHA, indicates that a smaller area could be encumbered by SFHA than is shown by the approximate study completed by FEMA. Upon completion of their watershed analysis, Wood submitted the data to FEMA on February 7, 2020, to once again initiate a re-evaluation of the floodplain boundary. The re-evaluation has been received, and it can take 7 to 12 months before the information is approved and becomes effective. Once effective, a new floodplain boundary will be approved based on the detailed information submitted by Wood. The changes that result from this revision to the floodplain boundary, could result in fewer structures being located in the SFHA.

**Floodplain Modeling:** Removing structures and changing grades can affect the boundary and depth of the floodplain. As stated above, FEMA approval is required for any project conducted within the floodplain boundary that changes the breadth and depth of the floodplain. For example, the razing of homes could result in changes to the floodplain boundary and depth creating a condition where minor grading could potentially change the boundary of the floodplain for those properties on the edge of the SFHA. Therefore additional floodplain modeling will need to be conducted, if, and as any homes are razed in order to determine the impact on other homes within the floodplain.

**Grants:** Staff investigated five federal and state grants and determined that the County could be competitive for three: two federal grants, Pre-Disaster Mitigation (PDM) and Flood Mitigation Assistance (FMA) and one state grant, Dam Safety, Flood Prevention and Protection Assistance Fund.

**Federal Grant Funding:** The two federal grants available are funded through FEMA. Acquisitions are eligible projects under the PDM and FMA grants. There are two types of acquisitions: (1) property acquisition and demolition, and (2) property acquisition and structure relocation. If the County pursues a buyout program, based on the conclusions of the Wood analysis, staff recommends the program involve property acquisition and demolition.

Participation in FEMA acquisition programs are voluntary; property owners are paid the amount the property is assessed at the time the grant is awarded. Once purchased, homes are demolished, and the properties are deeded to the County. FEMA requires that these properties remain public open space.

Funding for the acquisitions is divided between FEMA and another source. FEMA pays up to 75 percent for hazard mitigation projects with the remainder of the cost (25 percent) coming from other sources.

The timeline for both the PDM and FMA grants are the same. Once the application is received, it can take up to six months for it to be reviewed and selected for additional consideration. After this selection, it can be another six months for the grant to be awarded. The application period typically opens in the fall. If applications were submitted in the fall of 2020, it is expected award decisions would be announced in January 2022. Grant funding cannot be used to reimburse project costs, so the homes could not be acquired until the funding is granted. However, planning can be done to prepare for the award, allowing the acquisitions to occur quickly after funding is received. Existing buildings that are part of an open space acquisition and demolition project must be removed and disposed of in accordance with applicable laws within 90 days of closing and settlement of the property acquisition transaction.

Applications for these grants are submitted to the Commonwealth. Local governments are eligible sub-applicants and can sponsor applications on behalf of homeowners. Applications are reviewed, then sent on to FEMA based on their eligibility.

The main goal of the acquisition is to minimize financial and personal loss and suffering for residents and business owners. In addition to property buyouts, localized mitigation could also take place on properties within the SFHA. Localized mitigation is an eligible strategy under the PDM and FMA grants. The same requirements for match would apply.

Once the project is completed, the County may convey interest in the property only if the appropriate FEMA Regional Administrator, through the Recipient, Virginia Department of Emergency Management (VDEM), gives prior written approval of the transferee. The transferee must be another public entity or a qualified conservation organization. Private citizens, homeowners associations (HOA), and corporations are not eligible transferees. An easement or lease of the properties could be conveyed to a private citizen or corporation with prior approval from the FEMA Regional Administrator. There are no records of successful property transfer in Virginia.

Additional details on the specific grants are as follows:

Pre-Disaster Mitigation (PDM): This grant is typically awarded to larger scale projects that help public infrastructure, such as a storm water drainage project which includes some acquisition elements and stream restoration. Those projects with the highest benefit-cost analysis (BCA) are

most likely to be sent on to FEMA based on the available funding. The purpose of this program is to assist local communities with implementing pre-disaster mitigation programs and reducing risk from future hazards and dependence on federal funding.

Flood Mitigation Assistance (FMA): Eligibility for this grant requires that all structures to be included in the grant application have a NFIP-backed insurance policy prior to the notice of grant funding opportunity, most likely fall of 2020. This is also a competitive grant where the BCA is ranked by the Commonwealth. The purpose of this grant is to reduce or eliminate flood claims under the NFIP.

***Other Grant Opportunities***: In addition to federal grant opportunities, staff have identified a non-federal grant for which the County may be a candidate. Funding obtained from this grant could be used as the 25 percent match required by FEMA grants.

Dam Safety, Flood Prevention and Protection Assistance Fund: The funds for this grant are available to assist dam owners and Virginia localities with the enhancement of public safety and to reduce the risk of dam failures and property damage from flooding. A 50 percent match is required by the applicant, and funds are provided as reimbursement only after the project has been completed.

Applications are submitted to the Department of Conservation and Recreation by the local government. The selection of the applications is determined by a score that is based on specific criteria. The application cycle for 2020 was November 1, 2019, through February 28, 2020.

Currently, the Code of Virginia allows for projects, like acquisitions, under the grant, but currently, due to limited funding, only six project types are eligible (i.e. planning, ordinance updates, hydrologic and hydraulic studies, outreach, flood warning and response system, and tools to aggregate flood data). A buyout would not currently be eligible for this funding. However, increases in state funding may allow for buyout funding in the future.

As of March 31, 2020, the Virginia General Assembly passed the budget. This approved budget includes an amendment that appropriates \$732,147 for Dam Inventory, Evaluation, and Classification for 2021 and 2022. There may be an additional \$15 million provided in addition to the \$732,147; however, it will remain un-allotted until re-enacted by the General Assembly after a revenue forecast later this year. At this time, there has been no further information regarding the types of projects allowed under the Dam Safety, Flood Prevention and Protection Assistance Fund. However, in the budget, dam rehabilitation projects are the primary recipient of the available funding.

**Additional Considerations:**

If the Board directs staff to pursue a flood mitigation project without using County funds but instead using federal, state and/or private funds; the following should be considered:

- Grants are competitive. There is no guarantee that the County will be awarded a grant. If successful, it is likely that the grant funding would not be available until January 2022.
- The County will become the owner of acquired properties unless FEMA would allow transfer of ownership to another entity.
- Property ownership will result in long-term maintenance costs which may include HOA dues and upkeep of the property.
- The Selma Estates Homeowners Association has expressed concerns of potential financial impact, land stewardship and land use conducive with the community.
- Federally funded projects can take up to five years to complete. However, it is possible that property acquisition could occur within the first six months of grant funding. Therefore, if a FEMA grant was awarded in January 2022, property acquisition may be possible in the first half of 2022.
- The County may not be competitive for a FEMA grant because repetitive loss (NFIP insurance claims) is a consideration in grant award. Due to the relatively new age of the homes, many have not experienced repetitive loss.

If the Board directs staff to pursue a flood mitigation project using County funds the following should be considered:

- The County would have control over the project schedule.
- The County may be able to transfer ownership of acquired properties to the HOA or other entity.
- Selma Estates Homeowners Association has concerns of potential financial impact, land stewardship and use conducive with the community.

Staff recommends applying for flood mitigation grants to allow for the acquisition of homes and localized flood mitigation improvements for individual homes within the Special Flood Hazard Area (SFHA) in the Selma Estates subdivision. Staff also recommends that staff resources be dedicated to the project and be accounted for as an in-kind services for applications for grants. Lastly, staff recommends that the County pursue the use of private funding sources for any monetary grant match required, and to acquire properties prior to grant award. Specifically, the County should pursue funding from the design engineering company that performed the floodplain study for the development and from the developer of Selma Estates subdivision.

**FISCAL IMPACT:** Staff estimates that the cost of implementing a buyout/flood mitigation project would be \$14.5 million. This is a conservative estimate that assumes every eligible property owner would choose to be bought out. Actual costs could be less depending on the number of participants in the project and the type of mitigation on each lot. Home buyout costs include the assessed value of the house and costs of demolition, razing house structures, re-grading, and site stabilization. Engineering costs and a 20% contingency are also included in the estimate.

**ALTERNATIVES:**

1. The Board could direct staff to apply for flood mitigation grants to allow for the acquisition of homes and localized mitigation flood mitigation improvements for individual homes within the SFHA in the Selma Estates subdivision.

OR

2. The Board could direct staff to identify funding during the FY 2022 budget process to allow for the acquisition of homes and localized mitigation flood mitigation improvements for individual homes within the SFHA in the Selma Estates subdivision using County funds.

OR

3. The Board could take no further action.

**DRAFT MOTIONS:**

1. I move that the Board of Supervisors direct staff to apply for flood mitigation grants to allow for the acquisition of homes and localized mitigation flood mitigation improvements for individual homes within the SFHA in the Selma Estates subdivision.

I further move that the Board of Supervisors direct staff to pursue the use of private funding sources to supplement the cost of the project.

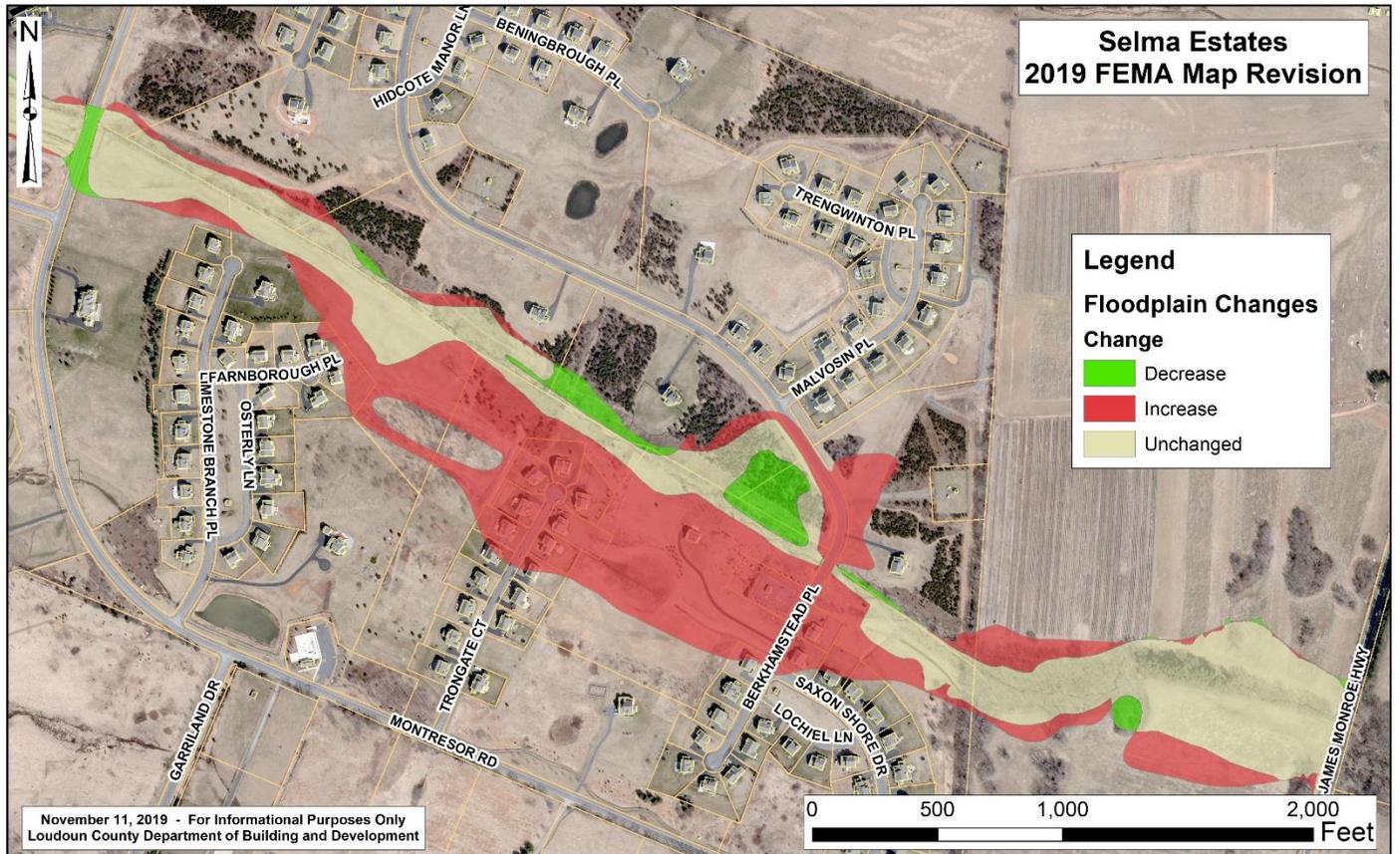
OR

2. I move an alternate motion.

**ATTACHMENT(S):**

1. Floodplain Boundary Changes Resulting from 2019 FEMA Remapping

# Floodplain Boundary Changes Resulting from 2019 FEMA Remapping



Attachment 1