

Stormwater Management

LOB #366:

EMERGENCY AND FLOOD RESPONSE PROJECTS

Purpose

The program provides funding for the design and minor construction activities to enhance public safety during storm emergencies and better protect County property and infrastructure from damage due to severe rainfall and flooding events. In addition, the program provides funding to implement minor capital flood mitigation projects on residential structures to address County liability. The program also provides the resources that are needed to ensure the County complies with the National Flood Insurance Program (NFIP), which enables County residents to obtain federally-backed mortgages, and the Community Rating System, which enables residents to obtain discounted flood insurance rates.

Description

This LOB supports Flood Mitigation Projects designed and constructed through engineering and construction contracts with private firms. Community involvement and feedback on proposed designs are an integral part of the design process. The program is managed by Stormwater staff and has been operational since January 2000. This LOB also supports the Flood Warning System, an electronic flood warning system provided at all 17 of the County's state-regulated dams, 17 of which are designated as high hazard dams, County flood protection infrastructure in the Belle View/ New Alexandria and Huntington communities and several road crossings that are subject to frequent flooding. Rainfall, water level information and flood alerts are communicated from the electronic flood warning system field sensors to County staff. This information is used to assess flooding potential and comply with the surveillance and notification requirements in the County's Emergency Action Plans. Impending flood predictions are conveyed to residents through various electronic media, including the Fairfax Alert system, River Watch and reverse 911. Finally this LOB supports the National Flood Insurance Program (NFIP). The County must participate in the NFIP in order for residents to obtain federally-backed mortgages. This program requires implementation of a floodplain management system that is consistent with federal requirements. This involves managing and updating the County's Flood Insurance Rate Maps (FIRM) and Digital Flood Insurance Rate Maps of the County's flood prone areas. The County also participates in the National Flood Insurance Program (NFIP) and Community Rating System (CRS) that allows County residents to receive discounted flood insurance rates based on the CRS rating. CRS ratings vary from 1 to 10 allowing residents to obtain flood insurance rates with a discount from 0 to 45 percent respectively. The County currently has a CRS rating of 6 which enables residents to obtain up to a 20 percent discount on their flood insurance rates. As of August 2015, Fairfax County is one of two jurisdictions in the state that has this high of a discount rate. The County receives CRS credit for its flood warning system, protection and management of its floodplains through the Floodplain Ordinance and flood protection outreach activities among others, which enable greater flood insurance discounts.

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Benefits

Flood Mitigation Projects:

- Reduce the risk of structural flooding and associated County liability
- Build livable spaces by protecting County infrastructure
- Maintain safe and caring communities by improving public safety
- Create a culture of engagement through community involvement during the design process
- Flood mitigation projects receive credit in the NFIP CRS program and contribute toward greater flood insurance discounts for residents.

Flood Warning System:

- Provides real time rainfall and water level data that are monitored remotely and used to predict local flood conditions.
- Provides early notification of potential dam failures and associated flooding, which could impact downstream homes, roadways and rail lines that exist within dam breach inundation areas.
- Saves resources to satisfy State mandated Emergency Action Plan monitoring requirements during storm events by minimizing the need for monitoring by field staff.
- Enhances safety by minimizing the need for staff to monitor dams during heavy rainfall events.

National Flood Insurance Program and CRS:

- Participation in the NFIP enables residents to obtain federally-backed mortgages.
- Ensures that floodplain requirements comply with federal standards.
- Better prepares residents for storm emergencies through the outreach and education activities.

The County's current NFIP CRS rating of 6 allows residents who live in a special flood hazard area to receive a 20 percent discount of their flood insurance rates. Fairfax County is only one of two jurisdictions in the state that have received this level of flood insurance rate discount.

Mandates

This LOB complies with the following mandates:

- The County must participate in the National Flood Insurance Program in order for residents to obtain federally-backed mortgages.
- The County must participate in the CRS program for residents to receive discounted flood insurance rates.
- The County must develop, update and implement Emergency Action Plans for its 20 state-regulated dams.

Trends and Challenges

This LOB faces the following trends and challenges: increased frequency and intensity of severe rainfall events, limited legal authority and land rights to implement flood mitigation projects, and increased cost of flood mitigation projects.

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Resources

Category	FY 2014 Actual	FY 2015 Actual	FY 2016 Adopted
LOB #366: Emergency and Flood Response Projects			
FUNDING			
<u>Expenditures:</u>			
Capital Projects	\$860,538	\$279,761	\$1,000,000
Total Expenditures	\$860,538	\$279,761	\$1,000,000
Total Revenue	\$900,000	\$900,000	\$1,000,000
POSITIONS			
Authorized Positions/Full-Time Equivalents (FTEs)			
<u>Positions:</u>			
Regular	0 / 0	0 / 0	0 / 0
Total Positions	0 / 0	0 / 0	0 / 0

Metrics

Metric Indicator	FY 2013 Actual	FY 2014 Actual	FY 2015 Actual	FY 2016 Estimate	FY 2017 Estimate
NFIP CRS rating	7	7	6	6	6

The National Flood Insurance Program (NFIP) and the Community Rating System (CRS) allow County residents to receive discounted flood insurance based on the CRS rating. CRS ratings vary from 1 to 10, allowing residents to obtain discounted flood insurance rates from 45 to 0 percent respectively. A rating of 1 provides a discount of 45 percent while a rating of 10 provides a discount of 0 percent. The County's rate has improved from a CRS rating of 7 to the current rating of 6, which enables residents to obtain up to a 20 percent discount on their flood insurance rates. National Flood Insurance Program Community Rating System (NFIP-CRS) Program audit and evaluations of the County's program and rating are conducted by the Federal Emergency Management Agency (FEMA) on a five-year cycle. The last audit by FEMA occurred in 2014.