



2020 Lower Makefield Township Floodplain Management Program

November 4, 2020



National Flood Insurance Program (NFIP) Community Rating System is a voluntary incentive program that recognizes and encourages community floodplain management activities that exceed the minimum program 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 National Flood Insurance Program**
- 3. Encourage a comprehensive approach to floodplain management**



Lower Makefield has a long history of flooding along the Delaware River as well as the other streams and tributaries that flow through the Township

Historic Crests

- | | |
|-----------------------------|-----------------------------|
| (1) 30.60 ft on 03/08/1904 | (17) 20.59 ft on 03/12/2011 |
| (2) 28.60 ft on 08/20/1955 | (18) 20.49 ft on 08/29/2011 |
| (3) 28.50 ft on 10/11/1903 | (19) 20.43 ft on 08/25/1933 |
| (4) 25.33 ft on 04/04/2005 | (20) 20.22 ft on 03/16/1986 |
| (5) 25.09 ft on 06/29/2006 | (21) 20.20 ft on 03/29/1914 |
| (6) 24.43 ft on 03/19/1936 | (22) 20.07 ft on 12/12/1952 |
| (7) 23.60 ft on 03/02/1902 | (23) 19.93 ft on 01/15/2018 |
| (8) 23.41 ft on 09/19/2004 | (24) 19.78 ft on 06/30/1973 |
| (9) 22.20 ft on 01/20/1996 | (25) 17.88 ft on 12/03/1996 |
| (10) 22.16 ft on 09/09/2011 | (26) 17.86 ft on 06/23/1972 |
| (11) 21.12 ft on 05/24/1942 | (27) 17.85 ft on 10/02/2010 |
| (12) 21.10 ft on 03/28/1913 | (28) 17.23 ft on 01/20/2006 |
| (13) 20.80 ft on 02/13/1925 | (29) 17.02 ft on 11/10/1996 |
| (14) 20.76 ft on 01/09/2014 | (30) 16.79 ft on 10/30/2003 |
| (15) 20.64 ft on 05/30/1984 | (31) 16.46 ft on 05/01/2014 |
| (16) 20.62 ft on 04/01/1940 | (32) 15.67 ft on 05/12/1998 |

https://water.weather.gov/ahps2/crests.php?wfo=phi&gage=tren4&crest_type=historic

1955 Flood Aerial from USACOE





On May 1, 2016, Lower Makefield Township was accepted into the Community Rating System (CRS) Program which provides for discounted Flood Insurance Premiums to Lower Makefield Township residents.

The current CRS Rating of 7 qualifies the owners of homes and businesses mapped within the A and AE Flood Zone for a 15% discount on their National Flood Insurance Program Policy (NFIP) premium upon renewal or the initiation of their policy.



The NFIP Community Rating System classes for local communities are based on 19 creditable activities, organized under four categories:

- **Public Information**
- **Mapping and Regulations**
- **Flood Damage Reduction**
- **Flood Preparedness**



CRS Activities to be implemented by Lower Makefield Township during the next 5-year cycle

- | | |
|------------------------------------|--------------------------------------|
| 310 (Elevation Certificates) | 430 (Higher Regulatory Standards) |
| 320 (Map Information Service) | 440 (Flood Data Maintenance) |
| 330 (Outreach Projects) | 450 (Stormwater Management) |
| 340 (Hazard Disclosure) | 501 (Repetitive Loss Requirements) |
| 350 (Flood Protection Information) | 510 (Floodplain Management Planning) |
| 360 (Flood Protection Assistance) | 520 (Acquisition and Relocation) |
| 420 (Open Space Preservation) | |

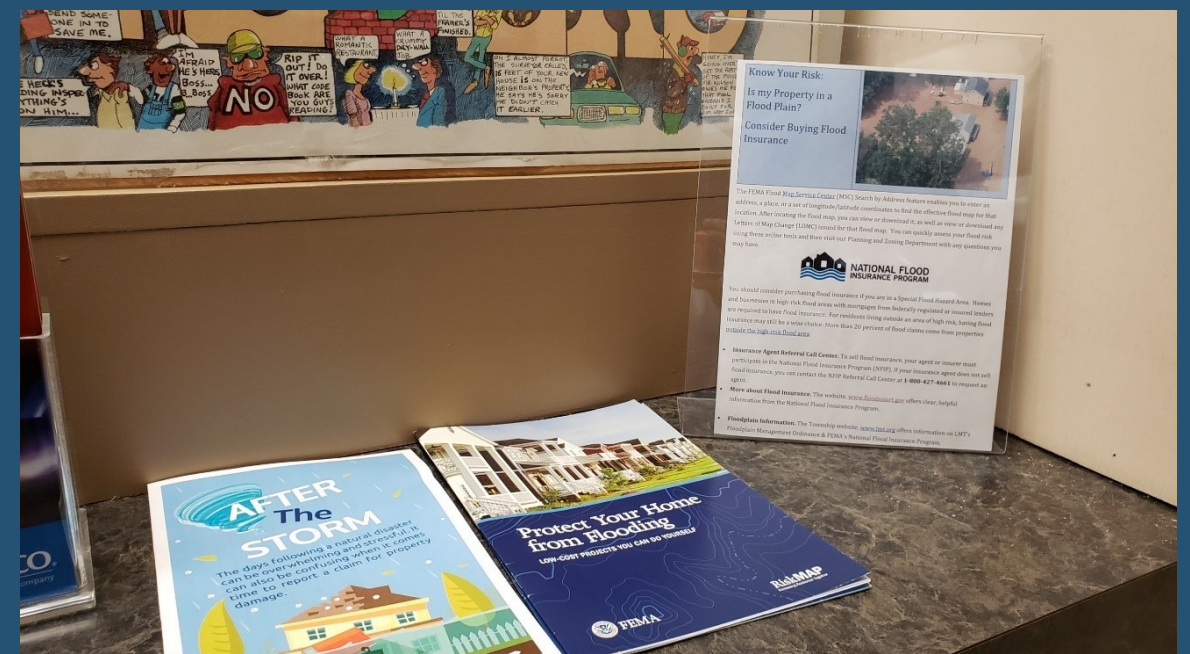
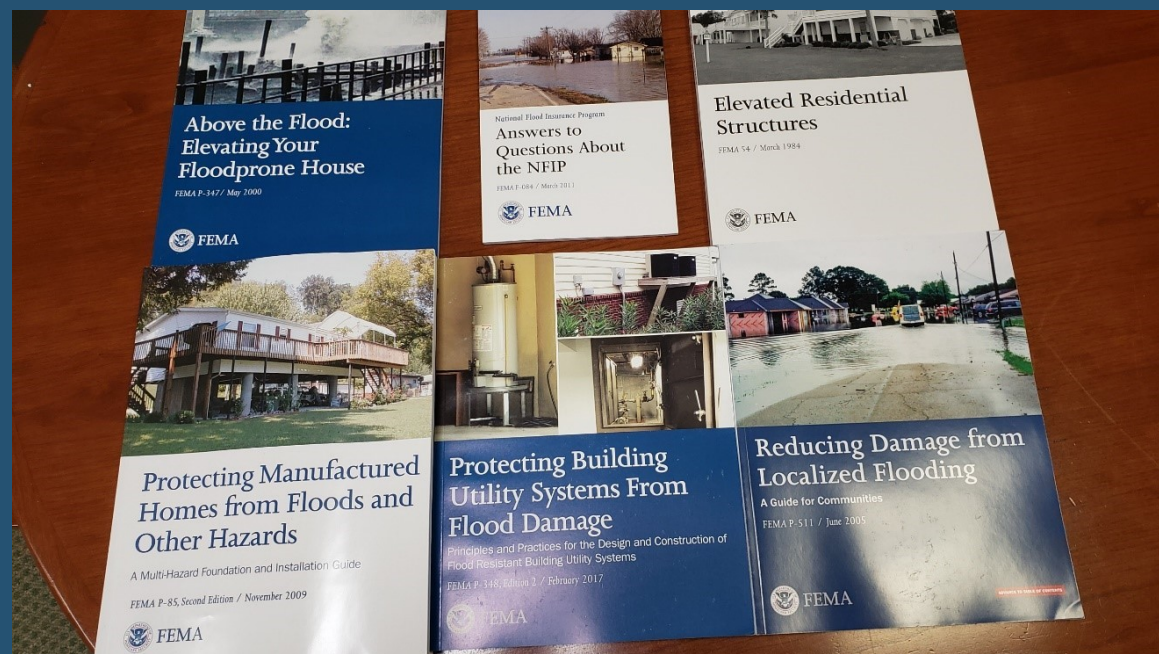
Other creditable CRS Activities can be implemented at any time to possibly increase the flood insurance discount

Flood Protection Information and Resources



The following FEMA Publications regarding Flood Protection are available at the Township offices and the Library for viewing or loan:

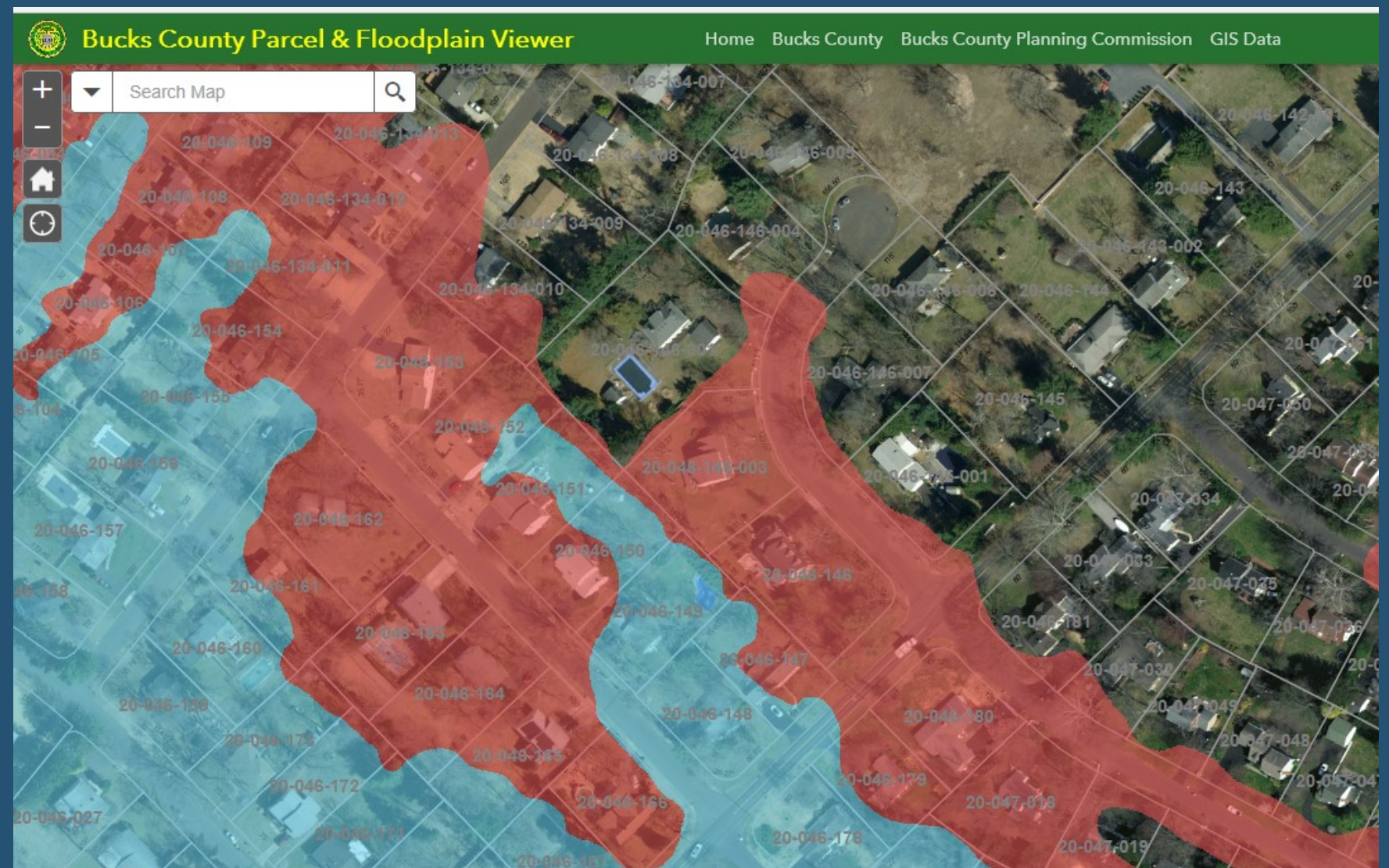
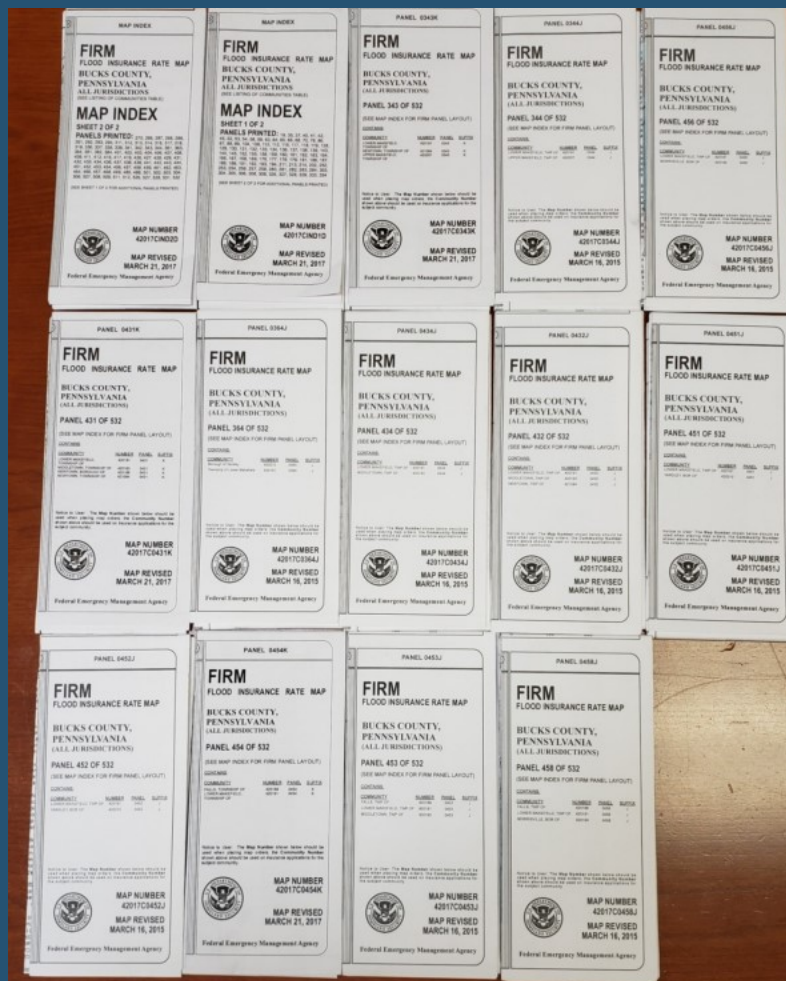
- Protecting Building Utilities from Flood Damage
- Reducing Damage from Localized Flooding
- Answers to Questions about the NFIP
- Elevated Residential Structures
- Above the Flood: Elevating Your Floodprone House
- Protecting Manufactured Homes from Floods and Other Hazards



Lower Makefield Township provides assistance to all property owners, lenders, realtors, and builders through the following services:



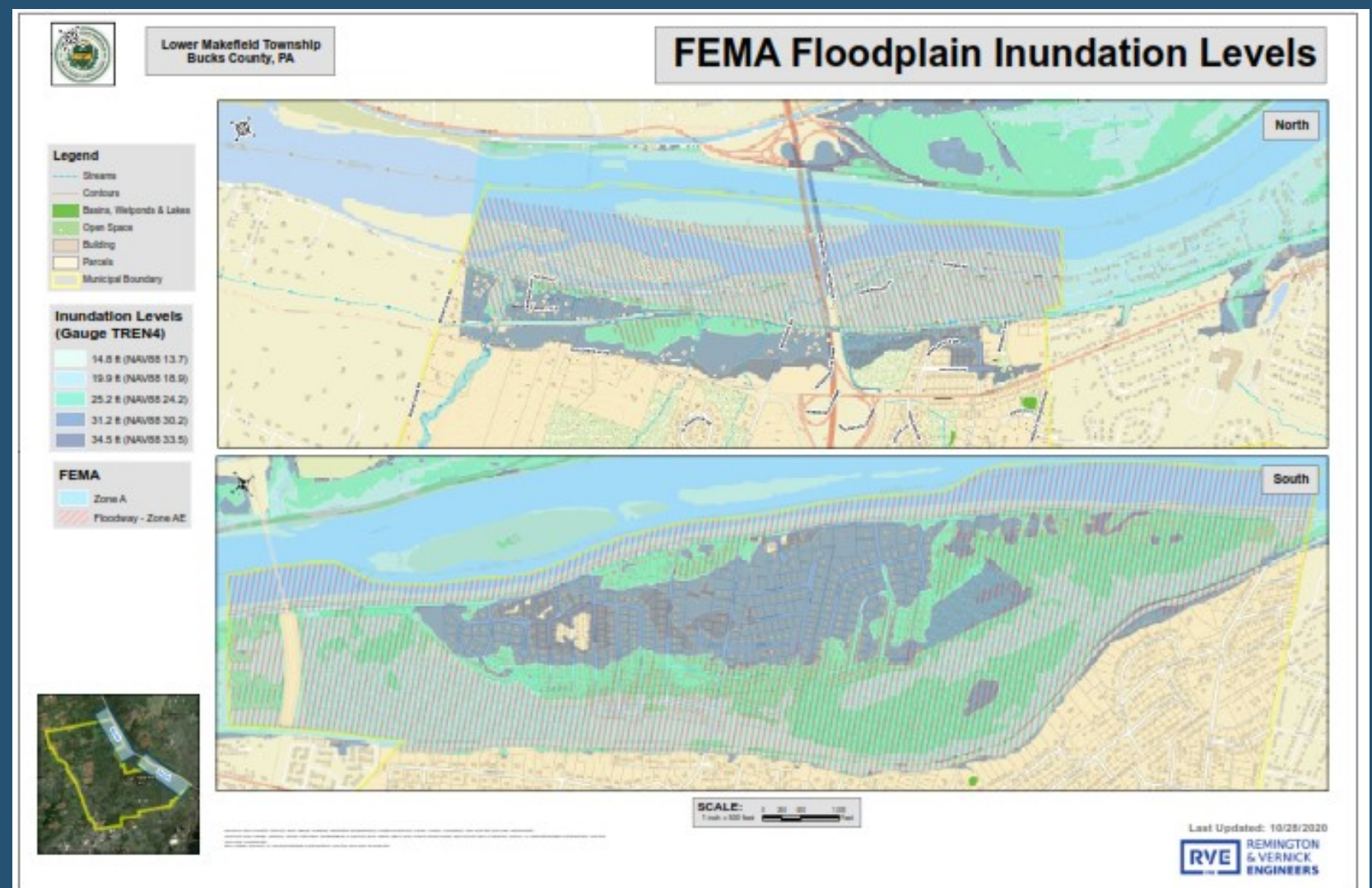
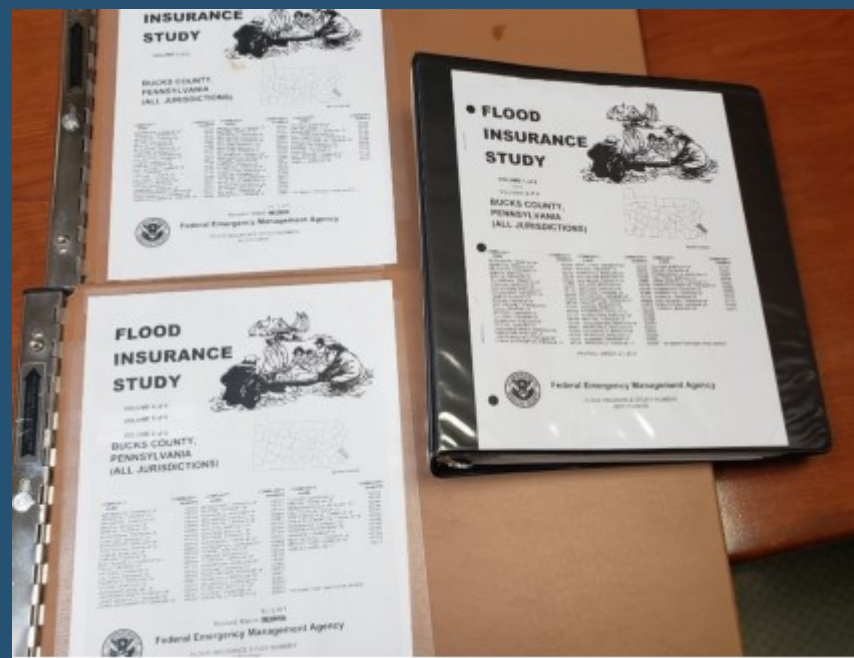
- Help you determine whether parcels located in the Township are affected by floodplains



Lower Makefield Township provides assistance to all property owners, lenders, realtors, and builders through the following services:



- Help you determine whether parcels located in the Township are affected by floodplains
- **Review Flood maps and other information**



Lower Makefield Township provides assistance to all property owners, lenders, realtors, and builders through the following services:



- Help you determine whether parcels located in the Township are affected by floodplains
- Review Flood maps and other information
- **Provide Elevation Certificate, flood depth and property data**

U.S. DEPARTMENT OF HOMELAND SECURITY
Federal Emergency Management Agency
National Flood Insurance Program

OMB No. 1660-0008
Expiration Date: November 30, 2022

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1–9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION	FOR INSURANCE COMPANY USE
A1. Building Owner's Name _____	Policy Number: _____
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. _____	Company NAIC Number: _____
City _____ State _____ ZIP Code _____	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) _____	
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) _____	
A5. Latitude/Longitude: Lat. _____ Long. _____ Horizontal Datum: <input type="checkbox"/> NAD 1927 <input type="checkbox"/> NAD 1983	
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.	
A7. Building Diagram Number _____	
A8. For a building with a crawlspace or enclosure(s):	
a) Square footage of crawlspace or enclosure(s) _____ sq ft	
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____	
c) Total net area of flood openings in A8.b _____ sq in	
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No	

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- Help you determine whether parcels located in the Township are affected by floodplains
- Review Flood maps and other information
- Provide Elevation Certificate, flood depth and property data
- **Answer questions about flood insurance**



Lower Makefield Township provides assistance to all property owners, lenders, realtors, and builders through the following services:



- Help you determine whether parcels located in the Township are affected by floodplains
- Review Flood maps and other information
- Provide Elevation Certificate, flood depth and property data
- Answer questions about flood insurance
- **Conduct site visits to assist with localized flooding issues**



Lower Makefield Township provides assistance to all property owners, lenders, realtors, and builders through the following services:

- Help you determine whether parcels located in the Township are affected by floodplains
- Review Flood maps and other information
- Provide Elevation Certificate, flood depth and property data
- Answer questions about flood insurance
- Conduct site visits to assist with localized flooding issues
- **Answer questions about building projects in the floodplain**

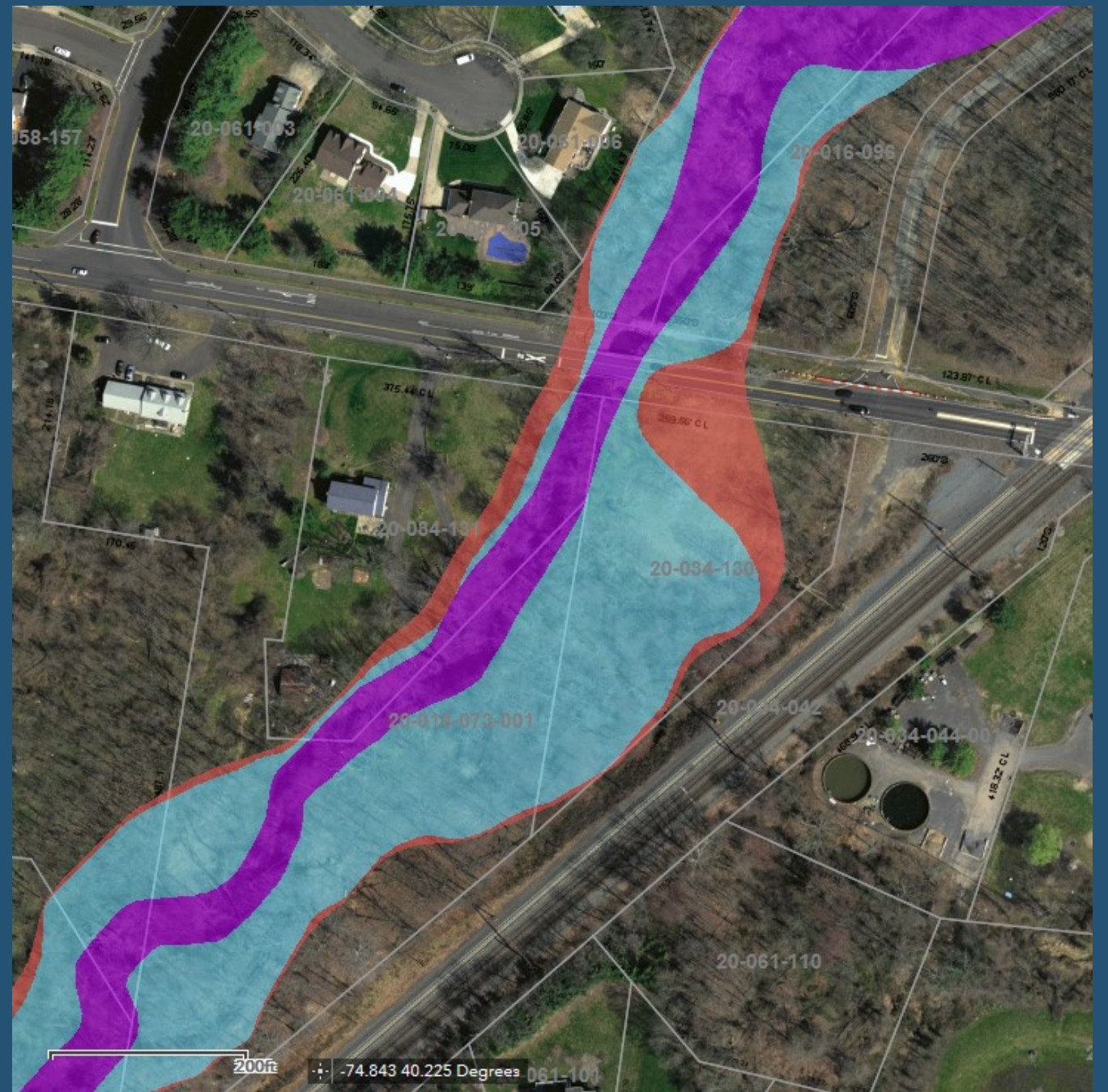
You should consider taking advantage of this service prior to offering any property for sale or for construction.

Contact the LMT Planning Department if you need assistance from our Professional Engineers or Certified Floodplain Managers.

The Bucks County Parcel & Floodplain Viewer GIS mapping resources contain the following layers that are useful when evaluating a property:



- Floodplains (FEMA)
- Streams
- Subwatersheds
- National Wetlands Inventory
- Parcels (tax data)
- Municipal Zoning
- Contours
- Current and Historic Imagery



Know Your Risk:

Is my Property in a Flood Plain?

Consider Buying Flood Insurance



You should consider purchasing flood insurance if you're in a Special Flood Hazard Area.

Homes and businesses in high-risk flood areas with mortgages from federally regulated or insured lenders are required to have flood insurance.

For residents living outside an area of high risk, having flood insurance may still be a wise choice: More than 20 percent of flood claims come from properties outside the high-risk flood area.



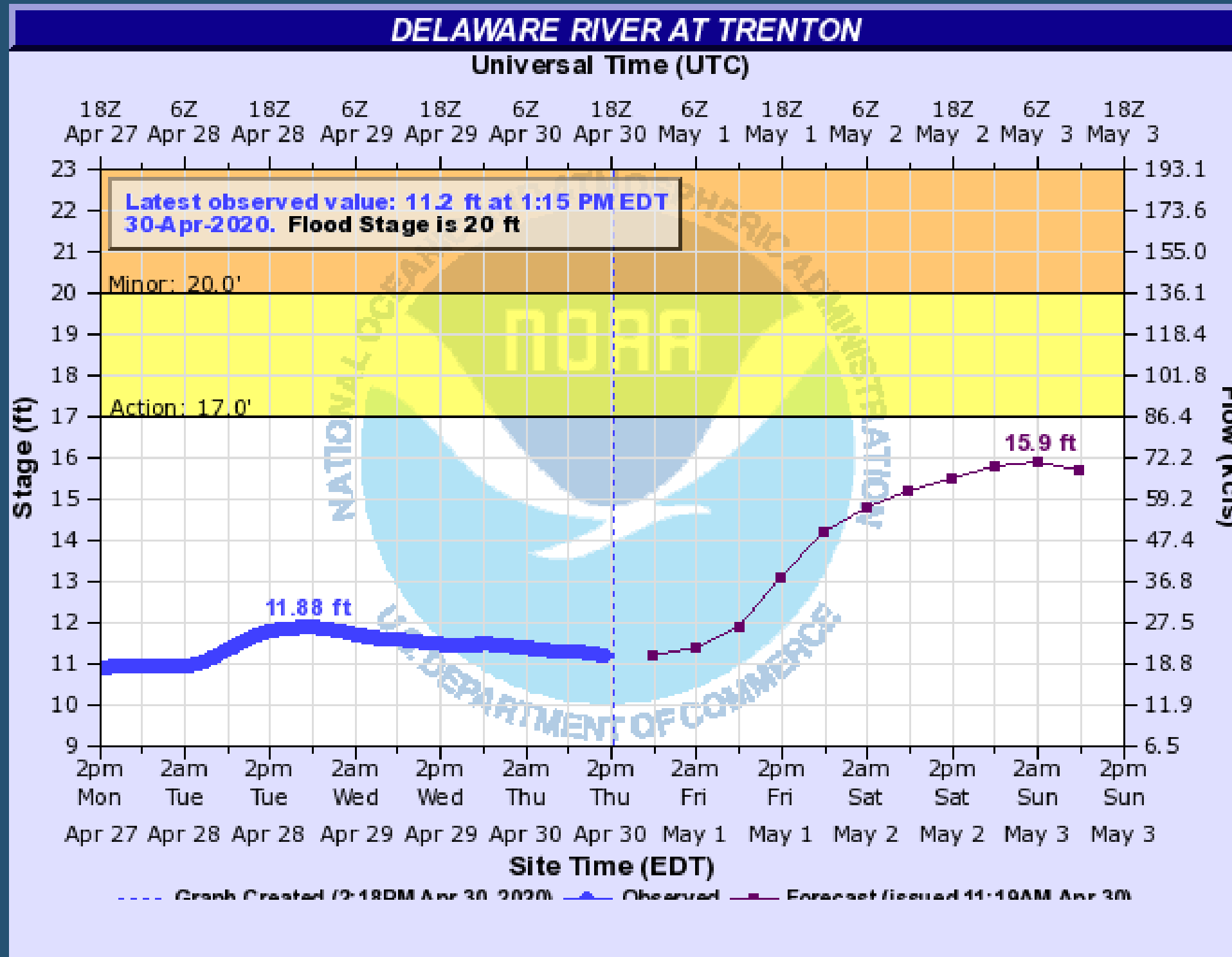
Insurance Agent Referral Call Center. To sell flood insurance, your agent or insurer must participate in the National Flood Insurance Program (NFIP). If your insurance agent does not sell flood insurance, you can contact the NFIP Referral Call Center at 1-800-427-4661 to request an agent.

More about Flood Insurance. The website, www.floodsmart.gov offers clear, helpful information from the National Flood Insurance Program.

Floodplain Information. The Township website, www.lmt.org offers information on LMT's Floodplain Management Ordinance & FEMA's National Flood Insurance Program (under Public Safety).



Delaware River flood information can be found at the National Weather Service's website: [Advanced Hydrologic Prediction Service](#)



Periodic posts (average twice per month) on floodplain topics are made simultaneously to the [Facebook](#), [Twitter](#), [LinkedIn](#) and the [Lower Makefield Township webpage](#) newsfeed:



Lower Makefield Township
October 6 at 6:23 PM · 🌐

Sign Up for Local Emergency Alerts With ReadyBucks

This system enables us to provide you with critical information quickly in a variety of situations; severe weather, unexpected road closures, missing persons & evacuations of buildings or neighborhoods.
<https://www.lmt.org/public-safety/ready-bucks/>



👍 Fredric Weiss and 1 other 3 Shares

Lower Makefield Township
September 6 · 🌐

Please click the following link to view the Environmental Advisory Council Every Bit Counts: Snippets of Community Action
<https://73e.756.myftpupload.com/.../Every-Bit-Counts...>



👍 11 2 Comments 8 Shares

Lower Makefield Township
September 26 · 🌐

30: The number of days it takes for flood insurance to begin. Don't wait until it's too late!
<https://www.floodsmart.gov/how/how-do-i-buy-flood-insurance>
#FloodSafety

Take the first step to protect the life you've built. Find participating insurance providers in your state or territory:
<https://www.floodsmart.gov/flood-insurance/providers>

Just 1 inch of water can cause \$25,000 of damage to your home.

GET FLOOD INSURANCE



FEMA NATIONAL FLOOD INSURANCE PROGRAM


👍 Su Du Blu and 2 others 2 Shares

Lower Makefield Township
October 25 at 11:30 AM · 🌐

Floods are the most common natural disaster in the United States.
Stay Safe when a flood threatens - Prepare Now:

- > Make a plan for your household
- > Build a "Go Kit"
- > Sign up for the ReadyBucks Alert System
- > Purchase or renew a flood insurance policy

<https://www.ready.gov/floods>



2 Shares



Township of Lower Makefield



CRS Activity 510 – 2020 Annual Progress Report

Bucks County 2016 Hazard Mitigation Plan Update

ACTION DESCRIPTION	IMPLEMENTATION
Action 1.A.1 Proceed with grant applications to suitably protect repetitive-loss properties 1% annual chance floodplain (for owners interested in FEMA mitigation funding).	Lower Makefield met with 2 property owners interested in FEMA elevation grants in 2020. Submitted Letter of Interest to PEMA for application due November 18, 2020.
Action 1.A.2 Proceed with grant applications to suitably protect and continue operations of critical facilities in the 1% annual chance floodplain and at risk to utilities interruption from flooding and other hazards.	Lower Makefield created an inventory of all Township owned properties in 2019, and confirmed there are 2 critical facilities in the 1% annual chance floodplain. The 2 sanitary sewer pump stations (Black Rock Road & Fox Hill) are at minimal risk for utilities significant interruption from flooding due to their location and relative elevation.
Action 1.A.4 Evaluate, implement, and perform mitigation projects identified in this and other planning mechanisms, including acquisition, elevation, foundation and building stabilization, securing access to generator power and other mitigation methods.	Lower Makefield has evaluated several properties located within the 1% annual chance floodplain for possible acquisition, including obtaining an appraisal for one. The Pennsbury School District is planning to renovate one school located in the SFHA and we have reviewed measures that can be implemented to reduce flood risk.
Action 1.B.2 Evaluate and/or pursue Community Rating System (CRS) participation for insurance premium reduction (and flood damage reduction).	Lower Makefield entered the CRS program in 2016 as a Class 7 community. In 2019 we received a Building Code Effectiveness Grading Classification of 4 from the Insurance Services Office (ISO).
Action 1.C.1 Obtain information for structures in the areas with the highest relative vulnerability to determine the best property protection methods. Information to be obtained includes: Lowest-floor elevation, Number of stories, Presence of a basement, and Market and/or replacement value.	Lower Makefield has started compilation of information including elevation certificate data for all available permits, estimated elevations based on 2-foot contour data and other available elevation data, number of stories, presence of basements, and market value. Plan to complete the tracking spreadsheet in 2020.
Action 1.C.2 Obtain information for all remaining structures in the 1% annual chance floodplain to determine the best property protection methods to promote with individual property owners. Techniques for gathering information over time should include developing and implementing a program for integrated information “capture” at key points in normal township administrative procedures, including applications for building permits at township/borough offices.	Lower Makefield requests copies of elevation certificates for all permits for structures located within a special flood hazard area (including those below substantial improvement thresholds), documents any other available elevation data, tracks market value (even if proposed work is not in SFHA). All building permits since 1939 are in the process of being scanned and indexed, which will allow for review and extraction of data including elevation certificates, site plans, etc.
Action 2.C.2 Review and consider updates to the floodplain ordinance, on an annual basis.	Ordinance was reviewed in 2019 and a typographical error in a prior printed version was discovered. The printing error in the floodplain ordinance was updated in 2020.

CRS Activity 510 – 2020 Annual Progress Report



ACTION DESCRIPTION	IMPLEMENTATION
<p>Action 1.A.1 Proceed with grant applications to suitably protect repetitive-loss properties 1% annual chance floodplain (for owners interested in FEMA mitigation funding).</p>	<p>Lower Makefield met with 2 property owners interested in FEMA elevation grants in 2020. Submitted Letter of Interest to PEMA for application due November 18, 2020.</p>
<p>Action 1.A.2 Proceed with grant applications to suitably protect and continue operations of critical facilities in the 1% annual chance floodplain and at risk to utilities interruption from flooding and other hazards.</p>	<p>Lower Makefield created an inventory of all Township owned properties in 2019, and confirmed there are 2 critical facilities in the 1% annual chance floodplain. The 2 sanitary sewer pump stations (Black Rock Road & Fox Hill) are at minimal risk for utilities significant interruption from flooding due to their location and relative elevation.</p>

Flood Mitigation Assistance (FMA) grants are available for house elevation projects or property acquisition and house demolition projects.

The grants and property owner funds cover between 75% and 100% of the engineering, construction, and administrative costs.

The grant application requires a Designation of Agent Resolution for the application, and the grant application is due to PEMA by **November 18, 2020**.

CRS Activity 510 – 2020 Annual Progress Report



<p>Action 1.A.4 Evaluate, implement, and perform mitigation projects identified in this and other planning mechanisms, including acquisition, elevation, foundation and building stabilization, securing access to generator power and other mitigation methods.</p>	<p>Lower Makefield has evaluated several properties located within the 1% annual chance floodplain for possible acquisition, including obtaining an appraisal for one. The Pennsbury School District is planning to renovate one school located in the SFHA and we have reviewed measures that can be implemented to reduce flood risk.</p>
<p>Action 1.B.2 Evaluate and/or pursue Community Rating System (CRS) participation for insurance premium reduction (and flood damage reduction).</p>	<p>Lower Makefield entered the CRS program in 2016 as a Class 7 community. In 2019 we received a Building Code Effectiveness Grading Classification of 4 from the Insurance Services Office (ISO).</p>

CRS Activity 510 – 2020 Annual Progress Report



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CRS Activity 510 – 2020 Annual Progress Report



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Action 2.C.2 Review and consider updates to the floodplain ordinance, on an annual basis.

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<http://www.buckscounty.org/docs/default-source/pc/2016bchmpupdate.pdf?sfvrsn=0>