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*Scenes from the flood (clockwise):
Morris firehouse, Empire House,
Naylors, Gilbertsville Presbyterian
Church basement.*



*The BVA is a 501(c)(3)
that serves the communities
within the watershed of the
Butternut Creek*

THE CURRENT

Summer
2021

Connecting and Sustaining the Butternut Creek Watershed

When Disaster Strikes

Natural disasters can occur at any time, as we were reminded on the evening of July 17 when large portions of the Butternut Valley were overwhelmed with flash flooding. Roadways became fast-moving creeks, culverts washed out, foundations crumbled and basements rapidly filled with flood water.

During the event and in the immediate aftermath, residents pulled together in response. Whether it was providing hay to help the Empire House protect its equipment or grabbing a rake to clear out storm drains or a shovel to help a neighbor clear their basement, private citizens stepped in to assist each other.

“When there is a natural disaster, the first thing to do is to make sure your home is safe, secure and functional,” explains Alan Springett, a Morris resident recently retired from a 26-year career with FEMA (the Federal Emergency

Management Agency). It can take weeks, even months, for state and federal assistance to be approved or even to determine if an event qualifies for support. Residents and municipal agencies helping each other to restore functionality is often the most effective initial step.

The Highway Departments of Butternuts, Morris and Pittsfield were overwhelmed with damage to roadways that exceeded their ability to meet the immediate repair needs themselves. In response, neighboring departments from Laurens, Unadilla, New Lisbon, Otego and Otsego County sent equipment and manpower to assist. “We’re fortunate to have such a good group,” says Jonathan Foote, Morris Highway Superintendent. “All the towns know what they are doing. We’ve had five federal disasters in the last 10 years (4 floods and a blizzard) and we had more damage to roadways in this event than the previous 5 combined.”

“It was a giant wake up call,” added Cory Wilber who recently assumed responsibility for the Butternuts Highway Department. “We’ve always had informal agreements with each other, all the neighboring towns, but this event is leading us to consider signed service agreements.” According to Alan Springett, with Memorandums of Understanding in place, agencies can be eligible for federal reimbursement if an event qualifies as a Presidentially declared disaster.

To qualify, New York state must document and meet a total amount in damages. That is why a critical step, once you and your property are safe, is to report your estimated damages to the Otsego County Department of Emergency Services. They are responsible for totaling the financial impact to qualify a county for assistance.

The challenge with this recent event
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30 Miles }
Length of the watershed

4,400 People }
Approximate population

130 Sq. Miles
Watershed area

by Maggie Brenner

Are Floods Preventable?

Floods are an unavoidable force of nature. In fact, in some instances, floods can be beneficial components of natural processes. They can replenish fertile bottomland for farming, recharge local groundwater and enrich the ecosystem. Being near water has advantages as well.

“Historically, many towns and villages were built within the flood plain of a body of water,” explains Jordan Clements, District Manager of Otsego County Soil and Water Conservation District (OCSWCD). “That waterbody served many purposes during that time,” such as ease of transportation, a water source to power mills and supply fire departments and ready access to rich farmland. This proximity, however, puts these villages in the path of potential destruction.

Modern development and changes in weather patterns create the potential for serious damage when a flooding event occurs. Multiple factors contributed to the recent flooding in our area on. “First is the rainfall intensity,” reports Dr. Les Hasbargen, SUNY Oneonta Professor of Geology. “Local rain gauges and the radar precipitation estimate from the National Weather Service show a band of 3-5 inches between Gilbertsville and Morris centered over the main ridge between the Butternut and Unadilla valleys.” This high intensity rainfall (anything more than two inches an hour) rapidly overwhelmed ground already saturated by earlier rain which



Spring Street in Morris the next morning. Roads can act as dams and redirect creek flow.

then caused the flash flooding to occur.

According to Dr. Hasbargen, ongoing changes in weather patterns will continue to generate more intense rainfall events. “The good news is that the high-intensity storms tend to be localized,” he continues. “The bad news is that models are calling for them to occur a little more often. We are left to try to mitigate the effects of these kinds of events.” Mitigation efforts would need to address other factors leading to flooding.

Other than completely relocating villages and their roadways, there are steps that can be taken to better accommodate rapidly developing high levels of runoff. Mr. Clements of OCSWCD cites four steps that towns and villages can take to minimize damage: town planning, increased vegetation, education and retention basins. In the case of floods and as part of their ongoing development efforts, OCSWCD documents the damaged areas and provides assistance to communities to obtain permits and technical services needed as well as briefing government officials.

Town planning and education are areas that are being addressed by the Butternut Creek Watershed Manage-

ment Plan led by Danny Lapin, Environment Planner for the Otsego County Conservation Association (OCCA). “Watersheds don’t adhere to societal boundaries,” says Mr. Lapin. “Each town’s approach to land use regulation affects its neighbors.” And our watershed is part of the Susquehanna watershed which in turn feeds the Chesapeake Bay, so everything we do here has significant effects hundreds of miles away. Not only will coordinated planning have positive environmental effects, continues Mr. Lapin, “by coordinating watershed management practices across municipal boundaries, towns can be more competitive for grant funding for infrastructure projects such as bridge and culvert replacement and stream bank restoration.” In addition to other benefits, implementation of a coordinated plan could provide monies for much needed improvements to minimize the potential for damage from future events.

“It is cheaper to be proactive than reactive,” says Mr. Clements of OCSWCD. “Our watershed study identified 300 culverts that are undersized but towns cannot afford to replace them all at once.” OCSWCD is working with local municipal leaders to fund programs to begin this type of preventative maintenance. “Roadways act like a dam for surface runoff coming down a hillside,” says Dr. Hasbargen. Roadside



Undersized culverts can be washed over by high waters, eroding the surrounding infrastructure and sending debris downstream.

ditches are designed to carry that runoff but if they are bare, cleared of vegetation, they facilitate erosion and carry soil and debris to the culverts. “If a culvert is too small, it plugs and runoff flows over the road and erodes further,” he continues. “It may only take one culvert to divert flow and to cause additional plugging of other culverts downstream. It’s a snowball effect.”

So why not clear ditches and streams of potential blockage such as trees and other vegetation? “The problem of large woody debris in stream channels is one that is being actively investigated,” says Dr. Hasbargen. In-stream wood has major benefits such as trapping sediment and slowing down the speed and force of the water flow, thus mitigating flood damage. However, when it becomes mobilized it has the potential to block culverts and cause damage. Similar challenges exist with the presence of beaver dams. Retention ponds, whether naturally occurring or manually constructed, are another method of slowing down the water flow and minimizing the potential for flooding. “Beaver dams [and the ponds they create] have numerous benefits as retention basins, filtration systems and aquatic habitats for threatened species,” says Mr. Lapin. “At the same time, they can break down or be located in a manner that poses a flood risk to residents.”

If our natural surroundings — trees, beaver ponds, steeply sloping hillsides — continue to pose flooding threats and floods are not preventable, what is a community to do? Mr. Lapin of OCCA identifies the key components: “The most obvious way to reduce flood dam-



Water forces can carry large boulders and man-made structures such as this culvert that washed down Dunderberg Creek.

age is to protect our wetlands, forests, riparian areas and streambanks. Nature has several layers of defense with regard to large overland flows. Preserving these key natural areas is much more cost effective than building infrastructure.”

Along with preserving our natural defenses, our recent flooding has highlighted the need for investment in improving our existing man-made structures such as culverts, bridges and bank armoring. Each of these elements, while providing a necessary level of protection, has the potential for creating additional damage if not implemented correctly. For instance, Mr. Lapin identifies bank armoring (installation of large boulders known as rip-rap to shore up eroding banks) as an example of a short-term local solution that can have negative impacts downstream by increasing the speed of the water and creating more erosion challenges elsewhere.

“We, as residents,” he concludes, “must work with local, regional and state entities to educate landowners about proper land stewardship techniques.”

There are no clear solutions for beaver dams such as the one at the head of Calhoun Creek that broke sending an estimated 28 million gallons of water downstream.



Disaster continued from page 1
is that it was very localized. While individuals, businesses and municipalities suffered extraordinary losses, with damages exceeding the county threshold of \$242,188, “New York state fell significantly short of the FEMA required statewide threshold of \$30,036,058,” explains Victor Jones, Acting Director of Otsego County Department of Emergency Services. In the absence of that aid, Mr. Jones added, “my office is working with the New York State Division of Homeland Security and Emergency Services Individual Assistance section in an attempt to conduct Small Business Administration assessments.” SBA assistance can provide low-interest loans to businesses and individuals affected by the flood but can only be applied to damage inside the home or business.

This limitation may exclude many residents from needed support. When federal and state aid is not available, other agencies may step in, explains Michele Farwell, Otsego County District 2 Representative whose district covers the three most significantly impacted towns (Butternuts, Morris and Pittsfield). “I have been working with affected individuals directly by giving them information about programs such as through the Office of the Aging and the historic preservation tax credits for eligible homes and commercial spaces.” The Otsego County Office for the Aging guides residents 60 years and older in applying for programs to replace or repair damaged water heaters or furnaces as well as recovery from other damages while tax credits may be available for repairs to structures designated as historic.

“The most important thing is to ask for help, and ask for help again,” emphasizes Alan Springett. There may be programs available through local organizations and churches, and, as was so clearly demonstrated recently, residents of this Valley were ready, willing and able to pitch in to help each other.

Maggie Brenner

Maggie Brenner
Co-Chair, BVA

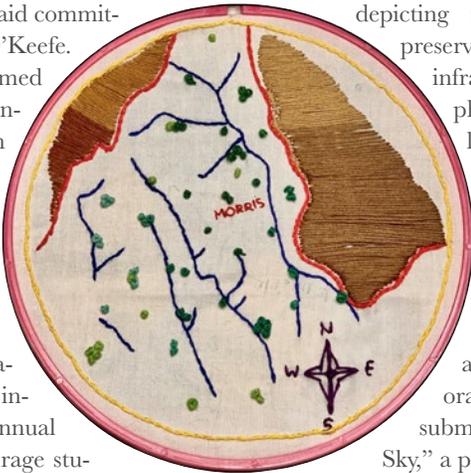
Visionary Scholar Awarded

BVA is pleased to announce Kate Morano, a recent graduate of Morris Central School, as the recipient of this year's Visionary Scholar Award. Ms. Morano will attend American University in Washington, D.C. this fall.

"Selecting this year's recipient was a difficult choice," said committee chair Rick O'Keefe.

"In fact, we named two honorable mentions as well. Each of these submissions not only addressed what the Valley should look like in 2040, but each did so in a unique and creative way." BVA's intention with this annual award is to encourage students to creatively communicate their vision for the future of the Valley.

Ms. Morano's entry was an essay entitled "The Butternut Waterthread" illustrated with an embroidered depiction of the Valley as it is today. She explains that she showed it as it currently looks



because she hopes it will look the same in the future. "Preserving the natural beauty of a place for future generations is the most important thing," she wrote.

Kyle Meyers, a Gilbertsville-Mount Upton graduate, was awarded an honorable mention for his photo essay depicting the importance of preserving our bridges and infrastructure. His prophetic photographs illustrated damage to a local bridge that was subsequently washed away in the recent floods.

Meisha Neer, an MCS graduate, also received an honorable mention for her submission titled "Purple Sky," a painting of a futuristic world that is "flourishing with colors because of its healthy clear waters and trash-free lands."

Each of the awarded entries can be seen on the BVA website. We encourage readers and future applicants to view them in their entirety.



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Creek Float
Launch at 11 a.m. Registration required. See the BVA website.



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New Lisbon Gravel Grinder
Registration at bikereg.com. Spectators welcome.



17

19th Century Mills
7 p.m. Historical presentation. Location to be announced.

Welcome New Board Members and Join or Donate to the BVA

At our annual meeting in April, we welcomed new board members Peter Martin and Maggie Brenner. We are seeking nominations to fill vacancies on the board. Board members are asked to attend 75% of monthly board meetings and participate in at least one committee. If interested, please contact Ed Lentz.

Please also invite your friends to become members. Membership fees help us continue our work and expand our reach. Membership entitles you to attend monthly board meetings and vote in the annual election.

The BVA is doing good work in the Butternut Valley for us, for our children and for our children's children. Help us maintain the pace of our work by supporting the alliance with your generous donation. Donations small or large to the BVA go a long way. Donations can be made by check or online at the Butternut Valley Alliance website: butternutvalleyalliance.org.

Your Neighbors, Our Board

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Co-Chair: Maggie Brenner
Secretary: Bob Thomas
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