
TO: Halcott Flood Advisory Committee
FROM: Milone & MacBroom, Inc.
RE: Halcott LFA Public Meeting #2
DATE: October 21, 2019
MMI #: 5197-16

A final meeting for the Halcott Local Flood Analysis (LFA) was held on the morning of Saturday, October 19, 2019 at the Grange Hall. In attendance were Mark Carabetta and Matt Trueheart from Milone and MacBroom (MMI), as well as members of the Halcott Flood Advisory Committee (FAC) and several members of the public. FAC members in attendance included representatives from the Halcott Town Board, and the Catskill Watershed Corporation (CWC). A sign-in sheet and the presentation slides are appended.

The purpose of the meeting was to:

- Review the LFA process
- Present recommendations for upgrading several culverts and the Town Highway Garage
- Solicit feedback and answer questions from members of the public
- Outline the next steps for Halcott to implement LFA recommendations

The meeting began with a recapitulation of the LFA process, and its application to Halcott. The Town's experiences with recent flood events were discussed, followed by MMI's presentation of recommendations for the five culverts assessed in the LFA area. Afterwards, MMI presented alternatives and recommendations for the Town Highway Garage on Ursus Way. Finally, MMI provided general recommendations regarding community flood resiliency.

The Draft LFA Report will be posted to Halcott's web page when Greg Beechler, the Halcott webmaster, returns from vacation. Members of the FAC and Halcott residents are encouraged to read this draft, and will have the opportunity to provide input before it is finalized. Comments from the public should be directed to the Halcott Town Board for synthesis and transmission to MMI. Those who wish to comment are asked to please do so by no later than November 11.

MEETING SIGN-IN SHEET



MILONE & MACBROOM

Meeting Date:

October 19, 2019, 10:00AM

Project:

#5197-16 Halcott LFA

Place/Room:

Halcott Grange Hall

Name	Address/Company	Phone	E-Mail
Mark Carabetta	Milone & MacBroom, Inc.	(845) 633-8153	mcarabetta@mminc.com
Matt Trueheart	Milone & MacBroom, Inc.	(845) 633-8153	mtrueheart@mminc.com
Dan Cheshire	648 RT 2 Halcott	254-4310	
Paul Sybil Margarets	513 RT 3	254-5374	E224356SC@GMAIL.COM
Karen Rauter	741 Route 3 Halcott	254-4180	jikrauter@gmail.com
John Mathiesen	905 Main St. Margaraville 586-1400		jmathiesen@cwzonline.org
Yuka Day	932 Route 1 Halcott	417-5432 254-6136	day.yuka@yahoo.com
Alan Reynolds	TOWN BOARD	845- 254-4522	AREYNOLDS05@GMAIL.COM
Russell Burton	Highway Superintendent	845- 4833	plundy9@yahoo.com
Innes Kastanof	813 RT Town Board	845-254- 9920	inneskasto@gmail.com
Stephen Kozuch	281 Johnson Hollow Rd	917-952- 0095	stephen.kozuch@axa-advisors.com

 MILONE & MACBROOM



Local Flood Analysis

Town of Halcott, NY



Mark Carabetta
Matt Trueheart

Public Meeting #2 | October 19, 2019

Purpose of Tonight's Meeting

- Review LFA process
- Present alternatives and recommendations
 1. Culverts and upgrade prioritization
 2. Ursum Way and Highway Garage
 3. Homes in flood hazard area
 4. Satellite emergency facility
- Additional feedback
- Final Report
- Next Steps





LFA Meeting Schedule

Halcott Fair (July 20)	FAC Kick-off (April 15)
Public Meeting #1 (July 22)	
	FAC #2 (August 19)
	FAC #3 (September 16)
Public Meeting #2 - present results and gather feedback (October 19)	

Steps of the LFA

- Public Input** – Help us understand flooding patterns and problems
- Engineering Analysis** – Hydraulic modeling of flood mitigation scenarios
- Benefit Cost Analysis** – To understand viability
- Funding** – Identification of potential funding sources
- LFA Report and Plan** – Blueprint for near- and long-term flood mitigation
- Implementation** – Halcott seeks funding to implement recommended projects

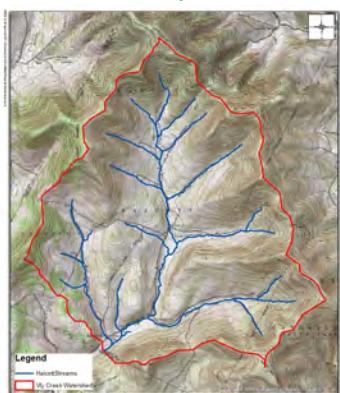
 MILONE & MACBROOM

Halcott LFA Area



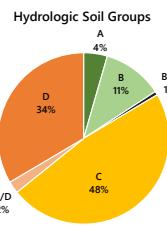
LFA Study area focuses on the Hamlet of Halcott

Vly Creek Watershed

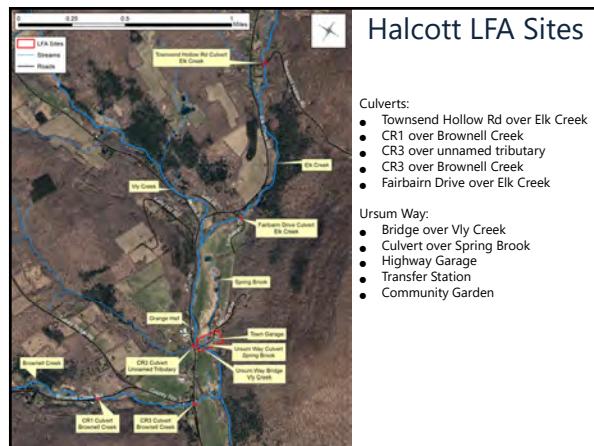
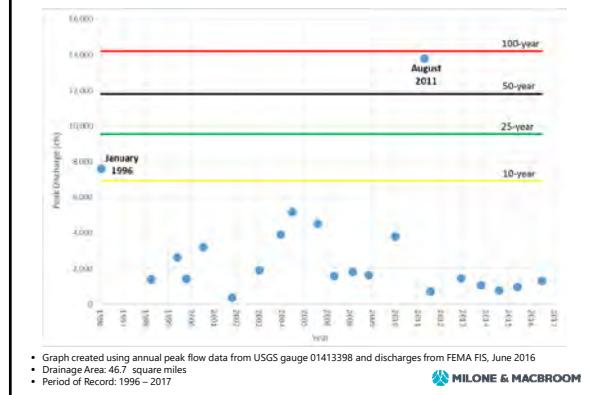


Watershed :
18.2 square miles
(measured at county line)

~90% forested
~7% agricultural
~2% developed



Recent Peak Flows – Bush Kill near Arkville





Townsend Hollow Road Culvert over Elk Creek

- Significantly undersized structure
- History of repeated damage
- Long, seasonal detour
- Damaged culvert may leave residents stranded

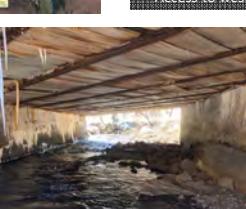


- Recommend replacement with 18-foot x 5-foot concrete box culvert to pass 50-year flow

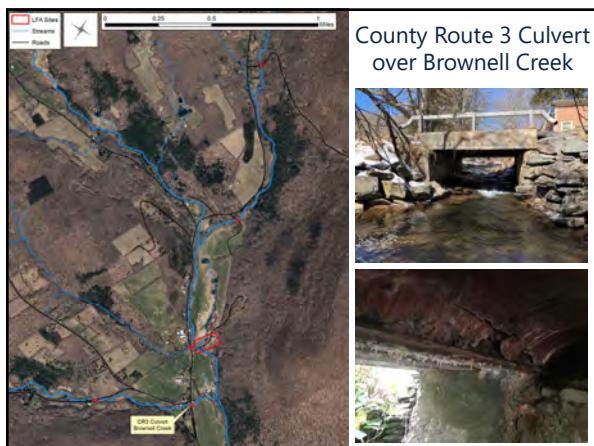
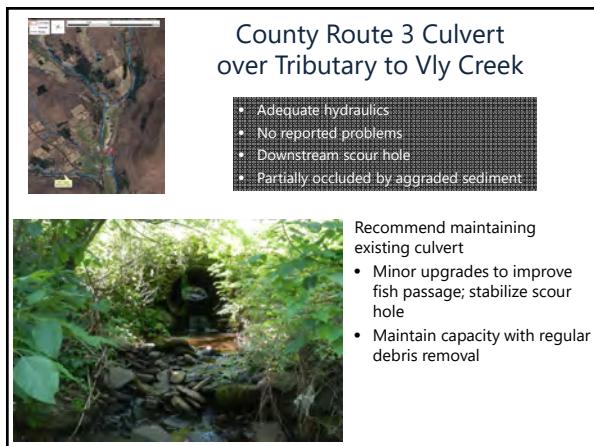
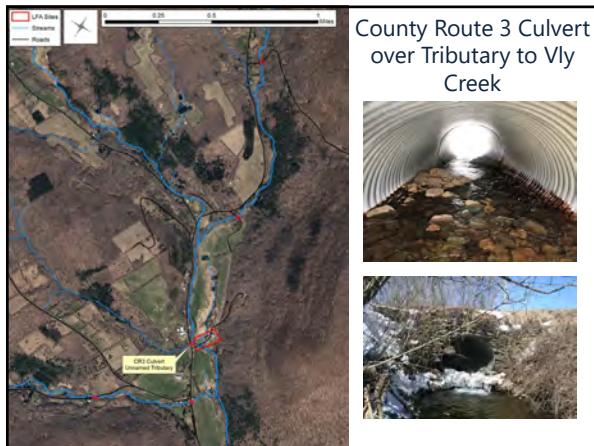


County Route 1 Culvert over Brownell Creek

- Inadequate hydraulics
- Frequently flanked and overtopped by floods
- Very poor alignment with stream
- Access to western Halcott



- Recommend 26-foot x 5-foot concrete box culvert to pass 100-year flood with road grade raised by 1ft
- Requires channel modification to eliminate constriction just downstream





County Route 3 Culvert over Brownell Creek

- Inadequate hydraulics, structurally deficient
- Primary access to Town
- Critical for emergency services
- High priority for replacement



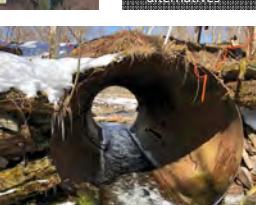
Recommend 24-foot x 5-foot concrete box culvert to pass 100-year flood.

Structural inspection recommended in near future



Fairbairn Drive Culvert over Elk Creek

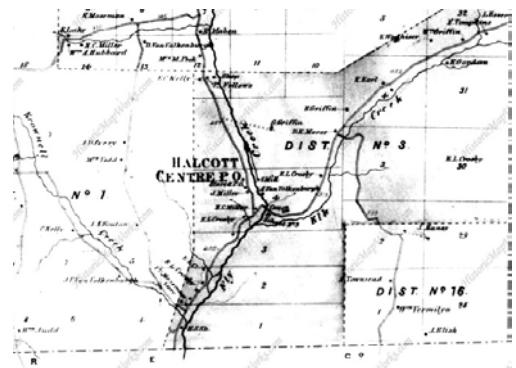
- Inadequate hydraulics, deteriorating structure
- Only alternative access to Town Highway Garage
- Assessed as part of Garage relocation alternatives



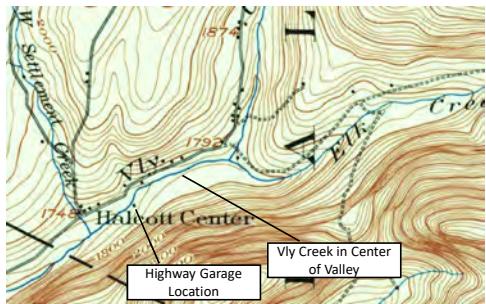
Recommend replacement if Town Garage will remain on current parcel.

24-foot x 6-foot concrete box culvert to pass 100-year flow.

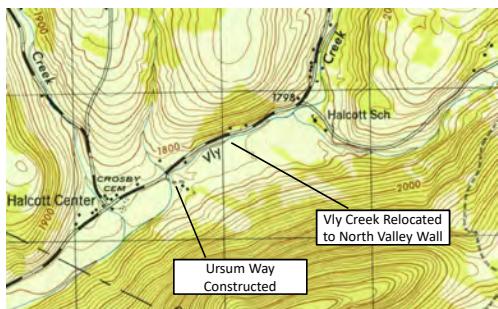
Historical Map – Halcott, 1867



Historical Map – Halcott, 1900



Historical Map – Halcott, 1945



Aerial Imagery – 1960



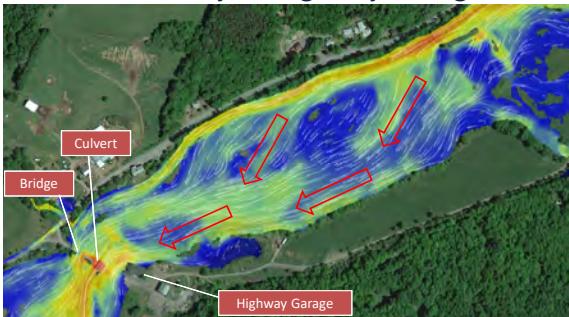
Ursum Way & Highway Garage



Ursum Way & Highway Garage



Ursum Way & Highway Garage



- During floods, Vly Creek channel fills and spills onto floodplain
- Floodplain flow converges on low terrain opposite from main channel
- Highway Garage lies in preferential flow path
- Terrain constriction and undersized structures exacerbate flooding at garage

Ursum Way & Highway Garage

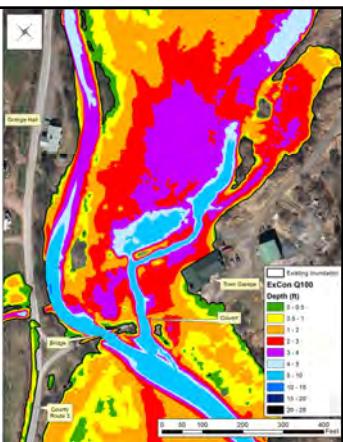
- Historical modifications have aligned channel poorly with Ursum Way
- Bridge & culvert cannot convey flood flows
- Ursum Way embankment dams water as flows overwhelm structures
 - Road overtops, and town garage floods
 - Culvert damaged numerous times in past floods
- Town garage is a critical facility for disaster response and must be accessible and resilient to flooding damage.
- Transfer station and chemical storage at town garage may negatively impact water quality when flooded.

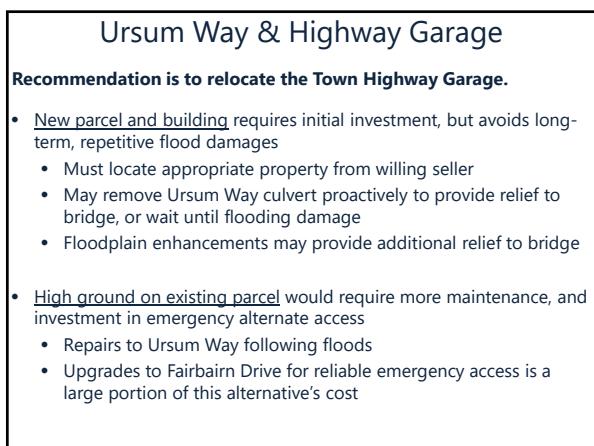
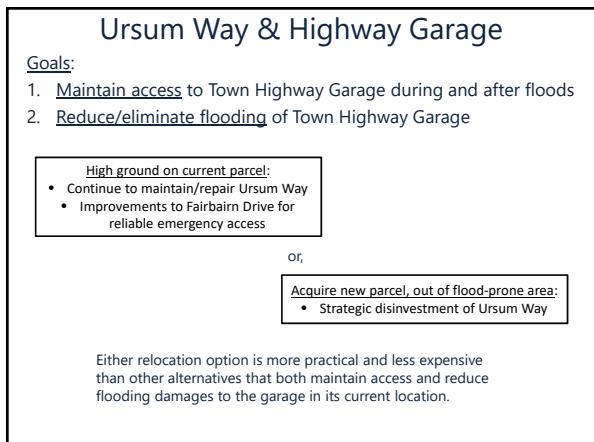
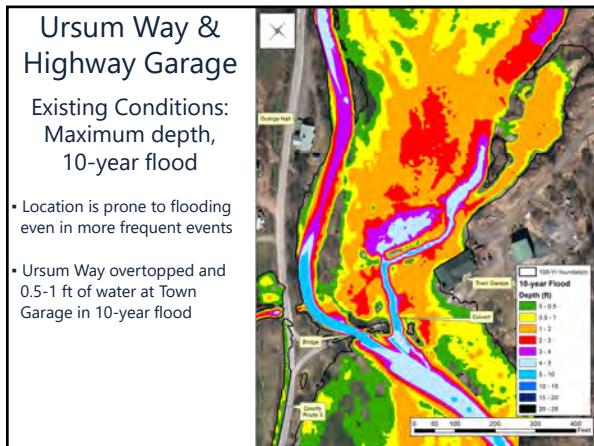


Ursum Way & Highway Garage

Existing Conditions:
Maximum depth,
100-year flood

- Ursun Way overtopped.
- Culvert damage probable.
- Bridge damage possible.
- 1-2 ft of water at town garage





Homes and Property in SFHA



Homes and Property in SFHA

- Several buildings in the Town of Halcott are in the special flood hazard area (SFHA), both within and outside the LFA project area
- Reports from Halcott residents of flood damage to homes and property in the past
- Depending on their history of flooding damages and owner interest, these property owners should consider buyouts or relocation (FEMA, NYC, CWC) or floodproofing measures (CWC, ESD)
- Encourage property owners to purchase NFIP flood insurance and make claims when damage occurs
- Upgrading undersized culverts in certain cases may reduce floodwater elevations at upstream homes and property

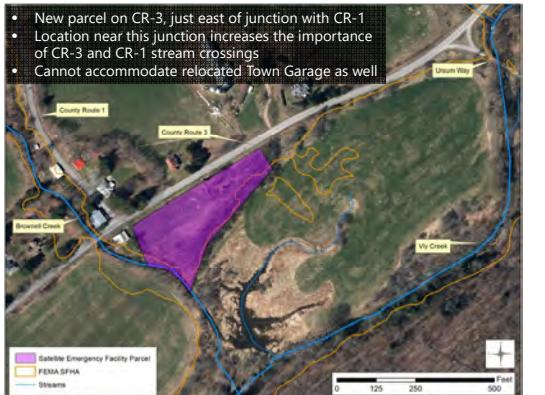
Potential Funding Sources

Detailed in LFA Report

Recommendation	Potential Eligibility		
	Federal	State	Other
Replace undersized culverts	FEMA	Bridge NY	SMIP-FHM
Debris removal following floods	USACE		CWC
Relocate Town Highway Garage out of SFHA	FEMA		CWC; NYC
Relocate transfer station	US EPA	NYS Dept. of State: NYSDEC-MWRP	CWC
Floodplain enhancements at Garage site			SMIP-FHM
Install floodproofing at critical facilities	FEMA		CWC
Floodproof or relocate the most flood-vulnerable properties where there is owner interest	FEMA	ESD	CWC; NYC
Anchor fuel tanks			CWC

Important to identify combinations of funding sources to reduce requirement to provide matching funds.

Satellite Emergency Facility



LFA Schedule

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Public Meeting #1 (July 22)

FAC #1 (August 19)

FAC #2 (September 16)

Public Meeting #2 - present results and gather feedback (October 19)

- Draft report: Halcott website
- Comment Period: 3 weeks
- Final Report: November



Questions, Comments, or Thoughts?

