

Town of Olive
Flood Advisory Committee
Report for January 14, 2016 Meeting

The Town of Olive Flood Advisory Committee met on Thursday, January 14, 2016, 6 pm at the Ashokan Watershed Stream Management Program office on Route 28 in Shokan.

Committee Members Present:

Sylvia Rozzelle, Dom Covello, Jim Hyde, Heather Gierloff, Andrew Emrich, Ed Kahil, Judy Coutinho, Nicholas Burger, Jody Hoyt, and Wally John

Others Present:

Leslie Zucker, Cornell Cooperative; Brent Gotsch, Ashokan Watershed Stream Management Program; Bill Blankenship, HGAConsultants (GOSR); Jim Sofranko, Olive Town Board; Aaron Bennett; UC Dept. of Environment; Steve Dibbel, Olive Planning Board; John Mathison, CWC; Phil Eskeli, NYCDEP Stream Management

Participating on Webinar:

George Fowler, Woidt Engineering; Rick Woidt, Woidt Engineering; Ray Girgis, NYCDEP Bureau of Engineering Design & Construction; Jeff Busse, NYCDEP Bureau of Engineering Design & Construction

Sylvia Rozzelle, Chairman of the Committee, called the meeting to order at 6 pm at which time George Fowler presented the following information regarding Informed Flood Mitigation Planning, Local Flood Analysis, 28A Bridge Replacement Meeting #4.

The FAC had requested at the January 7th meeting that Woidt model the 50 year and 25 year as well as modeling the west side of the stream for creation of benches. At 50 year flood there is still 2-3 ft. at the market and 4-5 ft. of water at the Fire House. The floodplain increases east and west at the Sewage Plant. On the west bank of the Esopus downstream of Route 28A the ground is very high and would require large excavation depths to create a floodplain bench. No relief would be realized as you run into a higher bank and have to make a large transition.

In Woidt Engineering's previously submitted draft Town of Olive Flood Analysis Rt. 28A Bridge Replacement and Boiceville Study Area Flood Mitigation Strategies at the 100 year event, putting in a four (4) span bridge and doing nothing else increases the flood levels at all three points studies: IGA Market +0.2, Sewage Plant +0.3, and Fire House +0.4. Putting in a four (4) span bridge with grading corrected results in basically no change from current flood levels at the same three points. Putting in a three (3) span bridge and doing nothing else produces a -0.7 ft. reduction at the IGA Market and the Fire House. The Sewage Plant would see a -0.5 reduction.

The findings prepared by Woidt Engineering draft of December 24, 2015 state: It is recommended that the Town of Olive first determine if construction and maintenance of flood protection facilities is a financially feasible option. This decision will be heavily influenced by the probability of obtaining project funding. It is noted that funding of flood protection facilities such as levees are not supported by NYCDEP and the competitiveness of other potential funding sources may severely limit the securing of project funding. Plan #2 would provide the greatest reduction of

floodwater elevations thus reducing the height of the levee, its construction costs and improving its benefit to cost ratio. Conversely, if the Town does not feel flood protection facilities such as levees are a financially feasible option, it appears that either Plan 1 (four span bridge with the flood plain bench) or Alternate #2 (three span bridge without any flood mitigation) would provide the most cost effective flood reduction benefits. The four span bridge alternative would be substantially more expensive than the three span bridge alternative and the modest reduction in flooding extents may not be economically warranted. With either of these alternatives, there will still be flooding of critical infrastructure at larger storm events. In conjunction with the proposed bridge improvements, it is recommended that the Town consider investigating other flood protection measures such as relocation of facilities out of the floodplain or elevating or flood proofing of critical facilities.

Of the five (5) mitigation strategies Woit Engineering states two (2) come to the top.

Plan #1 is for a four (4) span bridge with flood plain benches (2,000 ft. long X 101 ft. & 29,500 cu. yd. of material removed). The Benefit Cost Ratio (BCR) for Plan #1 is 0.26 with the cost estimate for the benches being \$2,096,000. This projected cost for benches does not include purchase of properties—two of which are Ronsen Piano Hammer and part of Stucki Embroidery all totaling approximately \$960,000 in assessed value. The project cost also does not include demolition of buildings, cost of engineer and engineering design. Plan #1 does not eliminate inundation during 100 year and 50 year which results in a lower Benefit Cost Analysis score. It does reduce water depth and completely eliminates water at the 25 year at the IGA Market.

Plan #2 is the same as Plan #1 with the exception of adding an earthen berm--four (4) span bridge with benches and earthen berm. Plan #2 model results show no inundation on eastern side of the berm. Benefit Cost Ratio (BCR) for this plan is 0.59. Cost of the construction of the berm and benches is \$3,112,000. Cost does not include purchase of properties, demolition of buildings, engineer, and engineering design. Earthen berms must be inspected and maintained and in order for flood insurance reductions for property owner behind the berm it must receive annual certification.

If the BCR on the floodplain benches was higher than 0.8 the benches could be fundable through the Catskill Watershed Corporation since the mitigation strategy is a result of Local Flood Analysis. The BCR must be 1.0 in order for FEMA to consider funding the project. It was noted that in the Benefit Cost Analysis down time for businesses that were inundated was considered in the calculation.

Private properties in the Boiceville floodplain total 5,975,200 in assessed value. The five properties necessary for implementing the benches and the earthen berm total 960,000 in assessed value—the two largest assessments being Stucki Embroidery and Ronsen Piano Hammer. This does not include portions of two other properties that will be needed to implement the project. Town owned properties including the Sewage Plant and the Trail Motel (in the process of being purchased by FEMA & deeded to the Town) total 6,328,500 in assessed value.

Woit Engineering model Plan #6, a four (4) span bridge with benches on both sides of the river. On the left side, depths are notably steeper. There is much less benefit due to cost and there is no hydraulic benefit from this plan.

A decision on the suggested bridge span length is required by the NYCDEP by February 1st. The Flood Advisory Committee had anticipated this decision be made at the January 21st meeting since Boiceville floodplain property owners were anticipated to be in attendance at that meeting. Discussion occurred on the various plans, including Plan #5 which combines Bridge Alternative #2 (three (3) span bridge which would slightly lower flood levels if nothing else is done) with Mitigation Strategy #2 (narrowed flood plain bench with proposed 9 ft. high levee being slightly realigned provided funding is available). Cost of construction of this flood plain bench and levee was not projected nor BCR determined. The FAC unanimously approved by individual member vote Plan #5—all ten members present voting yes. If the Town is not able to receive outside funding for construction project the three (3) span bridge does not create elevation in flood levels as would the four (4) span.

The Catskill Watershed Corporation (CWC) Relocation Assistance Program is available; however, the NYC DEP Buyout Program is still in developmental stage. Funding from the Town for this project is not available but a few members of the committee felt things might change within the next 50 years making the benches and earthen berm project available for funding. It is recommended that the Town review its zoning district for Boiceville to increase areas for business development out of the floodplain.

The Flood Advisory Committee will hold a meeting on Thursday, January 21st 6 pm at the Town Meeting Hall in an effort to inform Boiceville residents, as well as other Town residents, as to the mitigation strategies for Boiceville. It was noted by Sylvia Rozzelle she has reached out to most Boiceville residents in the floodplain either personally or by phone to let them know about the January 21st meeting.