

Discovery Report Appendix O

Watershed Recommended Scope of Work Lake Ontario – Oak Orchard-Twelvemile Watershed HUC 04130001

July 2016



**Federal Emergency Management Agency
Department of Homeland Security**
26 Federal Plaza
New York, NY

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

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February 9, 2016

Mr. Alan Springett
FEMA Region II
26 Federal Plaza
New York, NY 10278-0002

Re: Oak Orchard-Twelvemile Watershed Recommended Scope of Work

Dear Mr. Springett:

Please accept the State's priorities for new or revised floodplain mapping within the Oak Orchard-Twelvemile watershed as developed through the Lake Ontario Discovery project. Pre-Discovery community engagement meetings were held for the Oak Orchard-Twelvemile watershed via webinar the week of September 16, 2013. The purpose of the pre-Discovery webinars was to discuss the Discovery process and collect information on community mapping needs, as well as determine if any data exists could be incorporated into a possible Risk MAP project. There were nine webinar meetings held for the counties, communities, and other interested stakeholders throughout the Lake Ontario Contributing watershed area. Stakeholders within the Oak Orchard-Twelvemile watershed were specifically invited to attend the pre-Discovery webinars on September 18 and September 19, 2013; however they were welcome to attend any of the nine webinars held that week. Participation on the webinars was mixed with some counties and communities very interested in providing feedback and other communities providing less information.

Following the pre-Discovery Engagement meetings the project team held ten Discovery meetings for stakeholders within the Lake Ontario Contributing watersheds during the weeks of November 11th and November 18th, 2013. There were four in-person meetings held for stakeholders within the Oak Orchard-Twelvemile watershed. Two meeting were held on November 19th and another two meetings were held on November 20th. During these meetings the project team followed up on the information collected during the pre-Discovery meetings and provided an additional opportunity for the communities and other stakeholders to give further information on mapping needs. NYSDEC used the information collected throughout the Discovery process to develop this proposed scope. Certainly more stream requests were provided than can be studied as part of this project and all additional study requests will be entered into CNMS to be considered for future floodplain mapping projects.

The Oak Orchard-Twelvemile Watershed is the one of the eight watersheds that make up the larger Lake Ontario watershed. This watershed consists of four counties and 44 communities. Portions of Genesee, Monroe, and Niagara Counties are within the watershed along with most of Orleans County. Roughly two thirds of the communities within the Oak Orchard-Twelvemile watershed attended the Pre-Discovery meeting and/or the Discovery meeting to provide requests for updated stream studies.

Orleans County communities have the older flat map style Flood Insurance Rate Maps (FIRMs) which were developed in the 1970s and early 1980s. These communities would benefit from a modernized Countywide DFIRM. The community officials find the existing maps very difficult to work with and find it challenging to locate structures on these maps accurately. Orleans County

still remains a fairly rural county, however the communities would certainly benefit from, and are interested in, having updated digital products. A wholesale restudy of each community may not be warranted, but there are a few key stream segments which may require new detailed studies. The new detailed studies combined with updated approximate studies in a new digital format would assist both the communities and the county in enforcing floodplain regulations and managing development. NYSDEC feels that a digital conversion for the communities within Orleans County along with a few select detailed studies listed in the watershed priorities below is the highest priority for the Oak Orchard-Twelvemile Watershed.

Although the communities of Genesee County make up only nine percent of the land area within the watershed, NYSDEC feels that these communities would similarly benefit from having new digital mapping products. Like Orleans County, Genesee County has not had a countywide digital conversion and many of the communities have FIRMs from the 1970s and early 1980s. Again a wholesale restudy of each community may not be warranted, but a few key stream segments and updated or new approximate studies in a new digital format would assist both the communities and the county in enforcing floodplain regulations and managing development.

Both Niagara and Monroe County have been through countywide mapping revisions. Monroe County received a countywide mapping update effective in August 2008, and Niagara County received a countywide mapping update effective in September 2010. Not all streams were restudied as part of the mapping revisions. Both counties also feel that there are some issue with the accuracy of the LiDAR used due to the number of LOMAs clustered in floodplain areas along certain streams. Some of the requests for new detailed studies received during the Discovery Meetings have been changed to redelineation requests for these counties due to streams being studied during the recent mapping revisions. NYSDEC feels that a redelineation onto new topography would be a more appropriate use of mapping resources rather than an entire restudy of some of the requested stream segments. NYSDEC feels the requests for updated studies from Monroe and Niagara Counties are a lower priority than digitizing and updating key stream segments within Orleans County due to the age and usability of the Orleans County maps.

Beyond upgrading the existing detailed and approximate mapping to a digital format for Orleans and Genesee Counties, the Oak Orchard-Twelvemile Watershed stream study priorities for detailed studies Within Orleans County are as follows.

High Priority Detailed Studies:

1. Oak Orchard Creek should be studied by detailed methods for 15.06 miles in the Town of Shelby and the Village of Medina due to the age of the current Flood Insurance Rate Maps for the communities and the need for base flood elevations due to the density of development. This stream study was requested by the Town of Shelby and the Town of Ridgeway on behalf of the Village of Medina, Orleans County.
2. Johnson Creek should be studied by detailed methods for 15.54 miles through the Town of Yates, Village of Lyndonville, and the Town of Carlton to the Lake Ontario Confluence. The Town of Yates, Village of Lyndonville, and Orleans County requested the updated study due to the density of development around the stream, age of the current study and lack of detail and overall usability of the current Flood Insurance Rate Maps.
3. Sandy Creek should be restudied by detailed methods for 3.22 miles in the Town of Kendall. The current mapped floodplain is over stated and outdated. This study was requested by the Town of Kendall, Orleans County.

4. Fish Creek should be studied by detailed methods for 6.27 miles in the Town of Shelby. The current maps are unusable and the community officials would like to have base flood elevations for the creek. This stream study was requested by the Town of Shelby, Orleans County.
5. Whitney Creek should be studied by detailed methods for 8.78 miles from Route 77 to the Tonawanda Wildlife Management Area in the Town of Alabama due to new industrial chip plant development. This stream study was requested by Genesee County.

Medium Priority Detailed Studies:

6. The Lake Ontario shoreline should be studied using detailed methods within the Town of Greece in Monroe County and the entire shoreline within Niagara County. Monroe and Niagara County officials have requested new detailed study of the Lake Ontario shoreline due to the amount of development along Lake Ontario and the low lying topography of the shoreline. Base flood elevations would be useful to aid community officials regulating development.
7. Round Pond Creek should be studied by detailed methods for 12.5 in the Town of Gates and Town of Greece. There is a large section of piped stream near Jennifer Circle in the Town of Gates and inaccuracies with the floodplain delineation. A culvert that was replaced by NYSDOT under NY Route 104 in the Town of Greece. The floodplain is now understated. The shopping center to the east of Fox Meadow Road and Long Pong reported \$100,000 in damage in 2009. The affected areas upstream of the culvert include the Town Park with recreation facilities. The culvert inlet was elevated during the replacement. The downstream impacts of the culvert replacement are not yet understood. There has also been increased development near the upstream reaches in the Town of Gates that has increased the peak flow rates since the last time the creek was studied. There is a technical report on the Upper Round Pond Creek Basin completed by Barton & Loguidice in September 2010 and provided at the Discovery meeting. A copy of the technical report is included in the appendix of this watershed's Discovery report. This study was requested by the Town of Gates and the Town of Greece, both in Monroe County.
8. Unnamed Stream No. 1 should be a new detailed study for 0.7 miles from Maltby Road to the Oakfield town line due to increased development pressure and significant residential growth due to Nanopark in the Town of Alabama. This stream study was requested by the Town of Oakfield, Genesee County.
9. Unnamed Stream No. 2 should be a new detailed study for 3.22 miles in the Town of Oakfield from north of Drake Street Road at confluence with Unnamed Stream No.1 to Batavia Oakfield Town Line Road due to growth and development in the Town and Village. This stream study was requested by the Town of Oakfield, Genesee County.
10. Unnamed Stream No. 3 should be a new detailed study for 4.39 miles in the Town of Oakfield from north of Maltby Road to southwest of Hutton Road due to increased growth and development. This stream study was requested by the Town of Oakfield, Genesee County.
11. Unnamed Stream No. 4 should be a detailed study for 3.5 miles in the Town of Oakfield from just north of Maltby Road to the intersection of Fisher Road and Lewiston Road due

to increased growth and development. This stream study was requested by the Town of Oakfield, Genesee County.

12. Buttonwood Creek should be studied a new detailed study for 12.86 miles from the southern corporate limits of the Town of Parma to the confluence with Braddock Bay in the Town of Greece. This area is subject to development pressure and is an area in which the Town of Greece and neighboring upstream communities will be developing a model for inter-municipal floodplain management of the Buttonwood Creek drainage basin. This stream study was requested by the Town of Greece and the Town of Parma, both in Monroe County.
13. Long Pond Creek should be an updated detailed study for 1.38 miles due to inaccuracies in the floodplain delineation. Drawings and dimensions of underground piping provided on scoping map. There is also a retention pond on Rahway Road. This study was requested by the Town of Gates, Monroe County.
14. Brush Creek should be a new detailed study for 1.02 miles due to flooding caused by a historically incorrectly sloped and undersized culvert at the abandoned rail road embankment. The flooding experienced in this area does not match the mapped floodplain. There is a Final Bush Creek Drainage Report prepared by Erdman-Anthony in March 2007 which was provided at the Discovery meeting. This technical report is included as an appendix to the watershed's Discovery report. This stream study was requested by the Town of Greece, Monroe County.
15. Salmon Creek should be restudied by detailed methods for 6.48 miles from the confluence with Braddock Bay in the Town of Parma through the Village of Hilton to Hill Road in the Town of Parma. There is an apartment complex that was built in September 2013 that narrowed the creek significantly near Village II Drive in the Village of Hilton. The Town of Parma would like the topography to be updated within the Town of Parma Corporate limits. Some areas along the creek are more elevated than currently indicated on the FIRMs. This area is already fully developed. This stream study was requested by the Town of Parma and the Village of Hilton, both in Monroe County.

Lower Priority Detailed Study:

16. Tallwood Ditch should be a new detailed study for 0.56 miles through the Village of Hilton due to flooding along the stream which is currently not mapped. There are planned detention ponds for this area. This stream study was requested by the Village of Hilton, in Monroe County.
17. West Creek should be a detailed study for 5.07 miles, the entire length of the stream within the Town of Parma. There is a sewer line running along the length of the creek, and nearby there is significant development. The flood extents on the existing FIRM are inaccurate near the intersection of North Ave and Dunbar Ave and the area needs new topography. There is a retention pond located in the flood zone near Collamar Road and the area is development prone. This study was requested by the Town of Parma, Monroe County.
18. Eighteenmile Creek should be restudied by detailed methods for approximately 3.0 miles in the City of Lockport due to the current study having out of date hydrology and hydraulics. This study was requested by the City of Lockport, Niagara County.

19. Gulf Branch should be studied by detailed methods for 2.11 miles in the City of Lockport due to the current study having out of date hydrology and hydraulics. This study was requested by the City of Lockport, Niagara County.
20. There should be a detailed study of the tributary to Salmon Creek for 1.35 miles between Washington Street and South of the Barge Canal in the Town of Ogden. There is currently an approximate flood study available for this area, but detailed base flood elevations are desired by the community. This streams study was requested by the Town of Ogden, Monroe County.
21. East Creek should be studied by detailed methods for 0.74 miles from the confluence with Lake Ontario to Huffer Road in the Town of Parma. This study was requested by the Town of Parma, Monroe County.
22. Northrup Creek should be studied by detailed methods the entire length within the Town of Parma for 5.17 miles. There is a new sewer line and the area is starting to develop. The floodplain extents near Dean Road are inaccurate. There is a drainage ditch near Dean Road that is not on the existing FIRM. This segment of stream was recently restudied as part of the 2008 Monroe County mapping revision. This study was requested by the Town of Parma, Monroe County.

There was one stream study request for a limited detailed study within the Town of Sweden in Monroe County. The limited detailed study request within the Oak Orchard-Twelve-mile Watershed is as follows.

23. Brockport Creek should be a limited detail study for 0.6 miles in the Town of Sweden due to the culvert under E Canal Road that is undersized and has caused flooding in the area that may be more extensive than what is shown on the current maps. This study was requested by the Town of Sweden, Monroe County.

The priorities for redelineation for Monroe County within the Oak Orchard-Twelve-mile Watershed are as follows.

24. Otis Creek should be redelineated for 1.95 miles from the confluence with Salmon Creek to the corporate limit of the Town of Parma. The existing flood extents seem accurate but new topography would be helpful. This area of the community is already fully developed. This stream study was requested by the Town of Parma, Monroe County.
25. Larkin Creek (North Branch) should be redelineated for 1.56 miles due to the number of LOMAs for the area around Kuhn Road and Long Pond Road. Although the Town of Greece requested that this stream be a new details study for this area, the stream was restudied as part of the 2008 Monroe County mapping revision. Therefore, we feel a redelineation onto new topography due to the number of LOMAs is a more appropriate use of mapping resources. This stream study was requested by the Town of Greece, Monroe County.
26. Brush Creek should be redelineated for 0.63 miles from the confluence with Lake Ontario to the corporate limits in the Town of Parma. The existing FIRM is accurate. This stream study was requested by the Town of Parma, Monroe County.

Due to the age and number of approximate studies within Orleans County, there were also many requests for digital approximate studies within the County. The approximate study priorities for Orleans County are as follows:

27. The Town of Albion, in Orleans County, would like all approximate studies to be updated to digital approximate studies due to the age and limited detail of the current floodplain maps. This would be approximately 8.02 miles of updated approximate study.
28. West Branch Sandy Creek should be restudied by approximate methods for 2.08 miles within the Village of Albion due the age and limited detail available on the current floodplain maps. This study was requested by the Village of Albion, Orleans County.
29. Marsh Creek should be studied by approximate methods for 0.77miles within the Village of Albion. The creek is currently not studied. This stream study was requested by the Village of Albion, Orleans County.
30. East Branch Sandy Creek should be studied by approximate methods for 17.7 miles in the Town of Clarendon and the Town of Murray due to inaccuracies and gaps in the current approximate study and changes in technique for approximate studies. There is seasonal flooding of the creek in the Town of Murray, but no structures have been impacted by the flooding. This stream study was requested by the Town of Clarendon, the Town of Murray, and Orleans County.
31. The Tributaries to Oak Orchard Creek should be updated approximate studies for 8.5 miles within the Town of Barre. The current studies are out dated and lack sufficient detail for use by the community. The county and community also feel the current floodplains are overstated and inaccurate. These stream studies were requested by the Town of Barre and Orleans County.
32. Manning Muckland Creek should be an updated digital approximate study for 4.28 miles and Manning Muckland Creek Tributary should be an updated digital approximate study for 0.82 miles in the Town of Barre. The current studies is outdated and the community and county officials feel that the floodplain is over stated and inaccurate. The stream studies was requested by the Town of Barre and Orleans County.
33. The approximate studies of the tributaries to East Branch Sandy Creek should be updated with the new approximate methods within the Town of Clarendon due to the age and lack of detail on the current floodplain map. East Branch Sandy Creek Tributary 3 should be a new approximate study for 0.9 miles. East Branch Sandy Creek Tributary 2 should be a new approximate study for 1.42 miles. These studies were requested by the Town of Clarendon and Orleans County.
34. The Town of Yates would like all approximate studies within the town to be updated to digital approximate studies due the lack of detail and inaccuracies of the current FIRMs for the community. This would be approximately 49.6 miles of approximate study. These stream studies were requested by the Town of Yates, Orleans County.

35. Otter Creek should be a new digital approximate study for 4.87 miles in the Town of Gaines. There has been a bridge replacement on Eagle Harbor Waterport Road. This stream study was requested by the Town of Gaines, Orleans County.
36. Marsh Creek should be a new digital approximate study for 6.48 miles due to a culvert enlargement on Bacon Road in the Town of Gaines. This stream study was requested by the Town of Gaines, Orleans County.
37. Sandy Creek should be an updated approximate study with approximate base flood elevations established for 1.53 miles within the Town of Murray. There is seasonal flooding along this creek, but no structures are effected. This stream study was requested by the Town of Murray, Orleans County.

It is NYSDEC's understanding that in counties receiving new detailed modeling all existing approximate studies will be updated where topography is available. These existing approximate studies will not be listed separately at this time. NYSDEC would also like to request that any existing Lake BFE's that were determined and published as part of the LOMA process be included on the new maps if possible. This would enable communities to adopt the flood elevations and would allow residents currently residing along these lakes and ponds to have accurately rated flood insurance policies.

Thank you for providing NYSDEC with the opportunity to recommend a scope of work for areas within the Oak Orchard-Twelve mile Watershed. We look forward to working with you to refine and finalize this scope as we move forward. Please feel free to contact NYSDEC if you have any questions or would like additional information provided.

Sincerely,

A handwritten signature in cursive script that reads "Jennifer Horton".

Jennifer Horton
Environmental Engineer
Floodplain Management Section