APPENDIX A

GIS Inventory List

County Roads.shp

HUC12 boundaries.shp

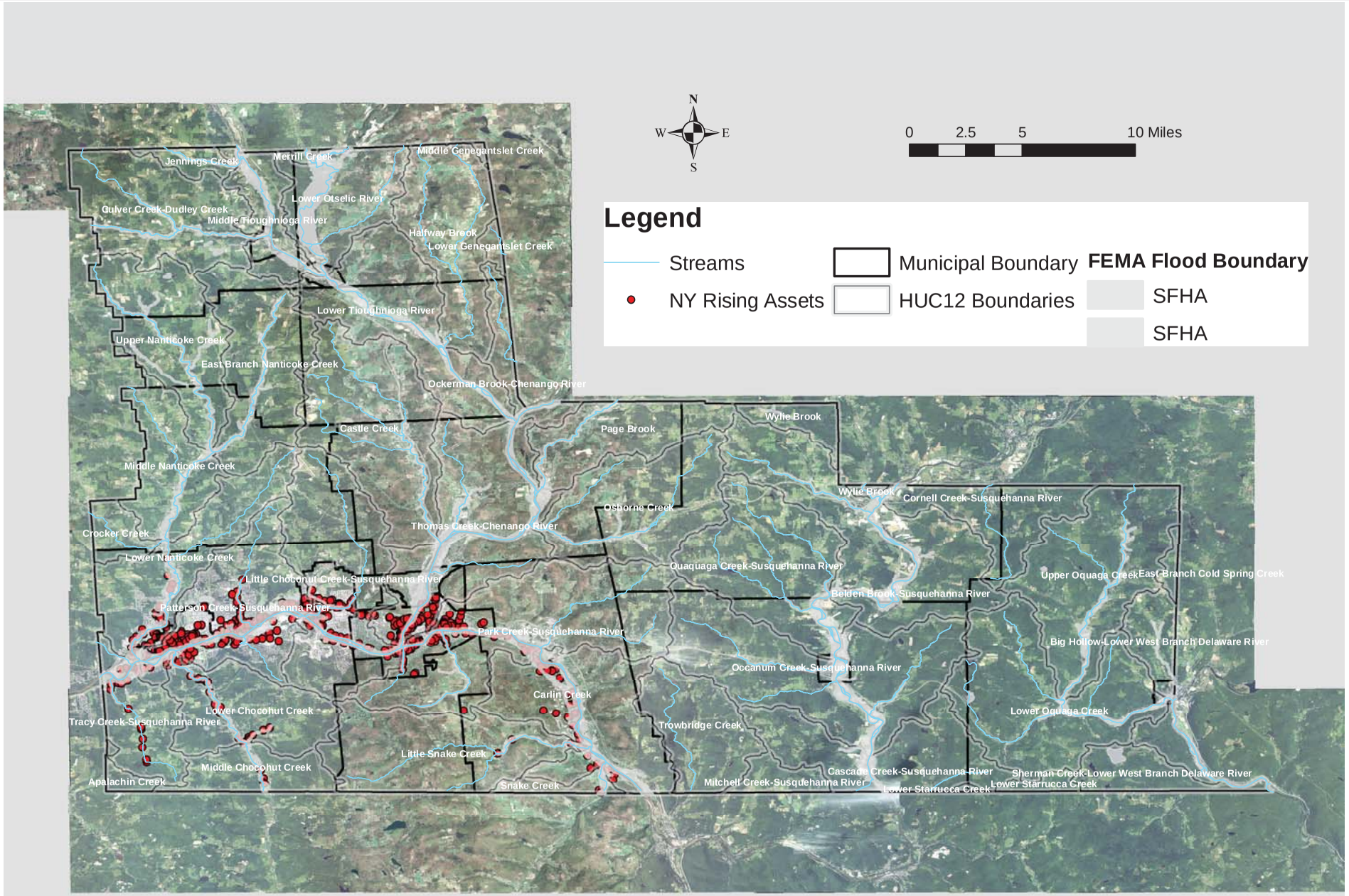
NHD Major Streams.shp

Munciple Boundaries.shp

NY Rising Community Assets.shp

NYDOS Repetitive Loss Locations.shp

Broome County Flood Buyout Locations.shp



2

BACKGROUND PHOTO: 2013 NAIP

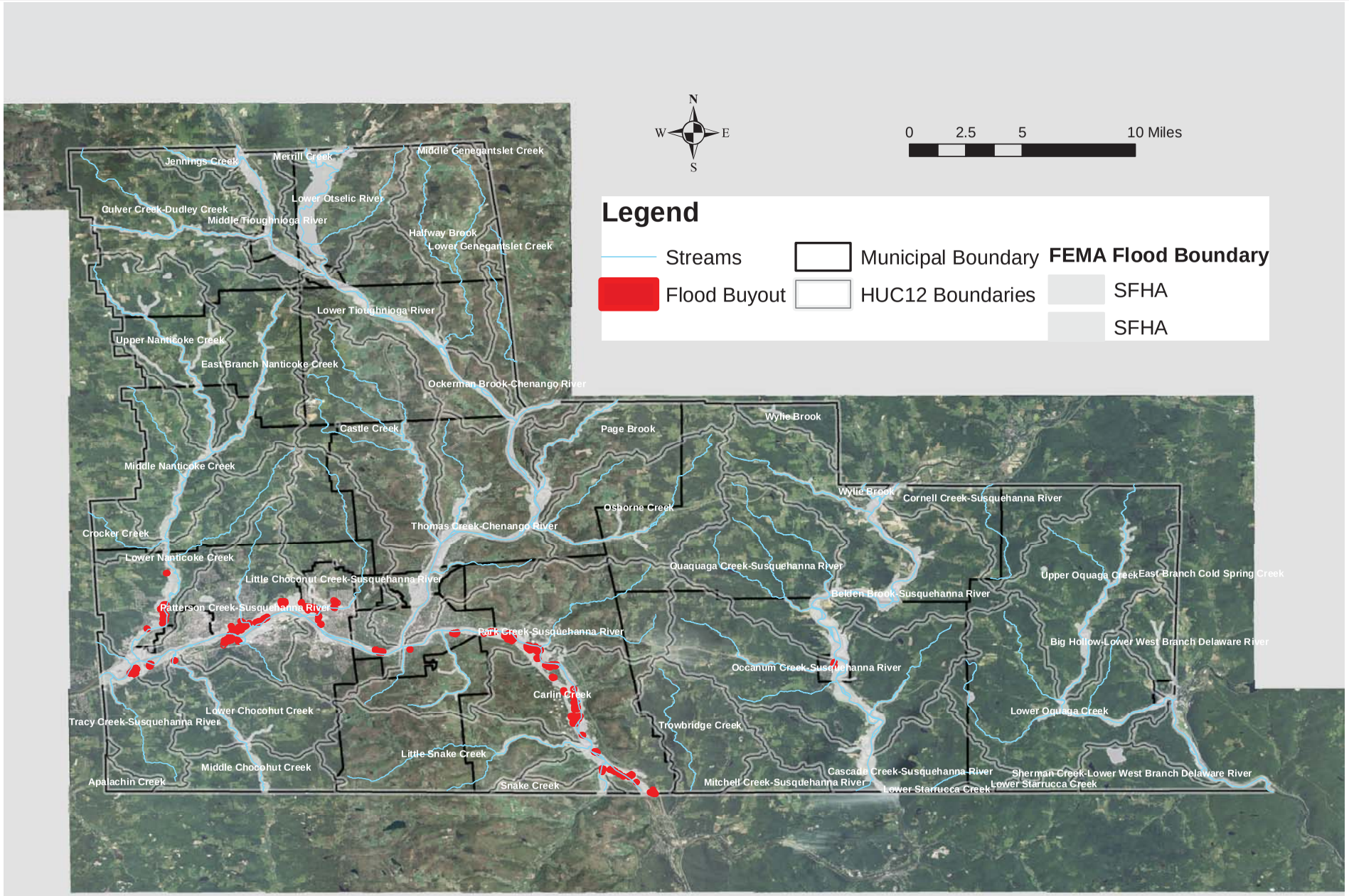
Woidt Engineering

LOCATION OF NY RISING COMMUNITY ASSETS

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 7/28/16
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYE02.2013
FIGURE NUMBER
A-2



3

BACKGROUND PHOTO: 2013 NAIP

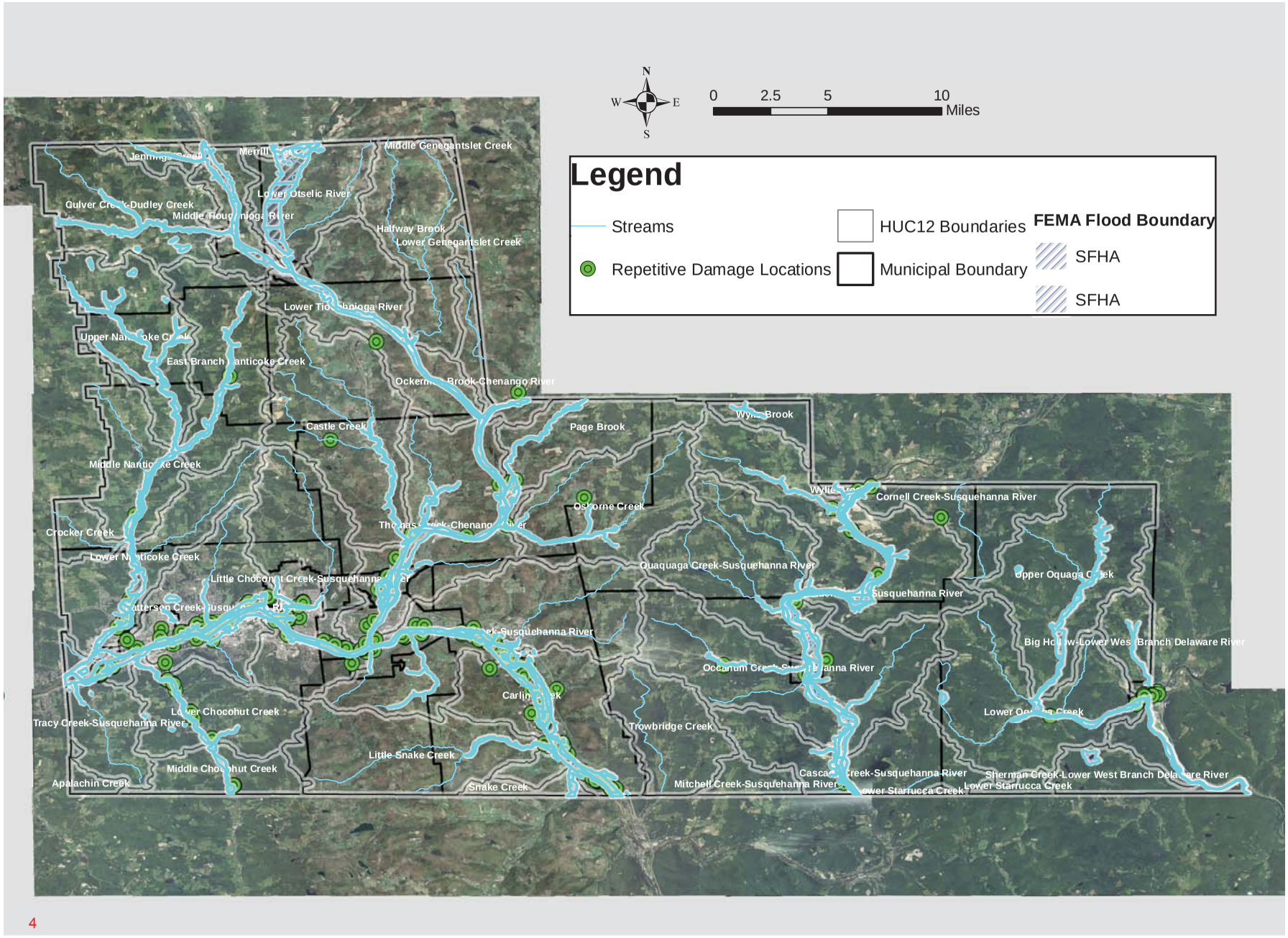
DATE: 12/26/16
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED22.2013
FIGURE NUMBER
A-3

LOCATION MAP OF FLOOD BUYOUTS

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

Woidt Engineering



BACKGROUND PHOTO: 2013 NAIP

Woidt Engineering

REPETITIVE FLOOD DAMAGED PROPERTY LOCATIONS

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 1/20/15
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYE022013
FIGURE NUMBER
A-4

April 16, 2014

Dear Municipal Representative,

As you know, flooding is a major threat in Broome County, leading to significant and often repeated damage to property and infrastructure. Local municipalities have been working hard to find solutions in response to significant events and long term, recurrent flood hazards. Municipalities must make difficult decisions about where to invest limited resources for flood mitigation projects. This may result in solutions that target mitigation at a project site rather than chronic issues that are occurring at the watershed level contributing to multiple hazards throughout the region.

In an effort to identify opportunities for projects that mitigate these watershed scale issues, we are undertaking the **Broome County Watershed Flood Mitigation Analysis**. This project aims to assess flood issues of all types on a county-wide scale. Then with a watershed based analysis, we hope to identify workable projects that will have far-reaching and long term benefits to the community. The goal is to have engineering solutions developed for the highest priority projects which can be used to support grant applications.

We know that there have been a number of initiatives devoted to identifying flood hazard solutions at the local and regional level. The goal of the **Broome County Watershed Mitigation Analysis** is to build upon the existing studies and fill in data gaps for the appropriate technical analysis. We hope to produce a tool that helps communities make informed decisions for how to allocate limited flood mitigation resources and to be successful in seeking additional hazard mitigation funding.

We are working with Woidt Engineering and Consulting on this project who have completed several flood mitigation analyses in Broome County and the Southern Tier.

While I am the project manager, I will be out on maternity leave in the coming months, so please contact Frank Evangelisti with any questions or to submit your survey at fevangelisti@co.broome.ny.us or 607-778-2414.

Best Regards,

Beth A. Lucas
Senior Planner

Instructions to view & create .KMZ/.KML files from Google Earth

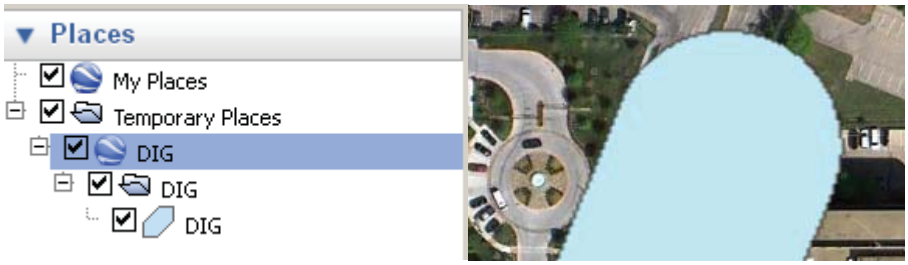
Make sure you have Google Earth downloaded on your computer. If you don't, please visit this link to download Google Earth http://www.google.com/earth/download/ge.

Please Note: Texas811, WestVirginia811 & SouthDakota811 are not affiliated in any way with Google Earth.

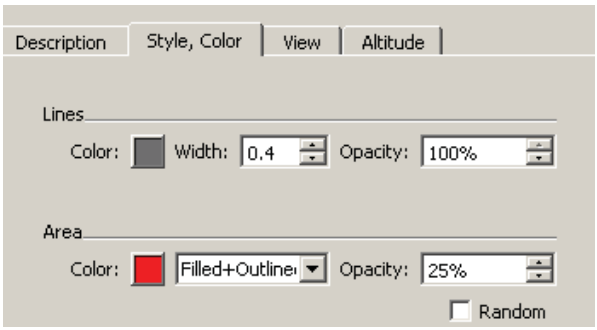
If additional help is needed, Google Earth provides additional resources located in the Help section and there are several tutorials available on YouTube.

Viewing Google Earth files

1. To view the file, double-click the .kmz or .kml file.
2. The information will appear under the Places panel and the map will zoom to the coverage area(s).

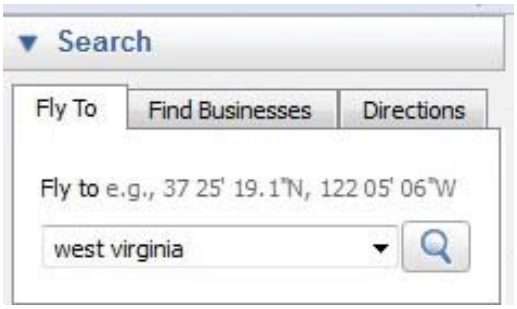


3. To change the color and opacity, right-click on the file; select Properties. A new box will open; select the Style, Color tab.

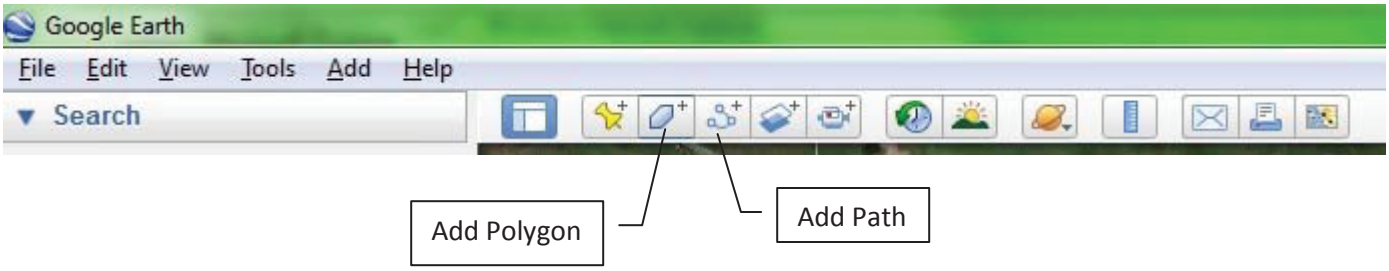


Creating a .KMZ/.KML file

1. Open the Google Earth program that you have installed on your computer.
2. To search for places, enter the search term(s) in the *Fly To* box under the Search panel and click  . You can search by address, business name, Lat/Long coordinates, keyword(s) and locale name.



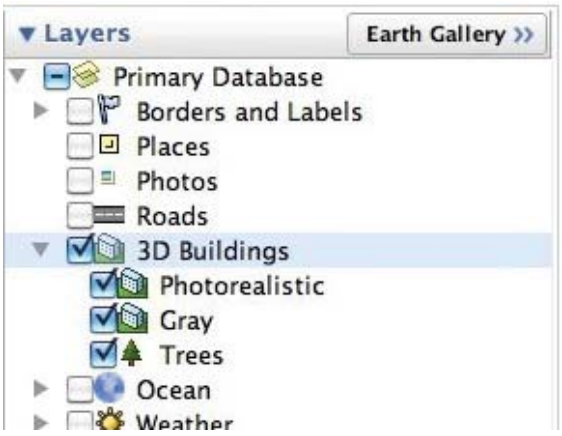
3. Once Google has zoomed into the area that you're looking for, you can start drawing in the area that you need to have registered. You will use the toolbar provided by Google Earth. The Add Polygon and Add Path buttons will be the tools that you will want to use.



4. **Placemarks:** You can use placemarks to mark any location on the planet. You can then quickly go to the marked location at any time by double clicking the placemark in the Places panel. You can edit, move, share or delete any placemark. Start by clicking the placemark button  in the toolbar and then just click the area that you want to mark.

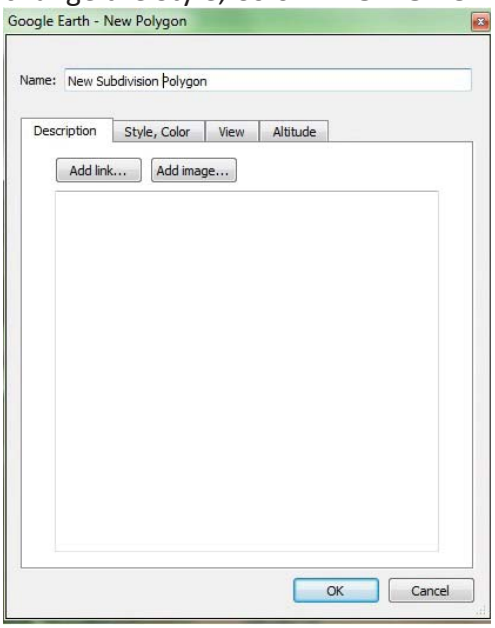
5. **Navigation Controls:** ▪Use the Look joystick (top of the controls) to look around from one vantage point. ▪Click and drag the ring around the Look joystick to rotate the view. ▪Use the Move joystick (center of the controls) to move down, up, right or left. ▪Drag the pegman to the 3D viewer to switch to Street View. ▪Use the zoom slider to zoom in or out (**+** to zoom in, **-** to zoom out).

6. **Viewing Layers:** Layers can display a variety of interesting geographic content. To view a layer, check the layer or layer folder in the Layers panel. Note that some layer content does not appear until you zoom into an area. To hide a layer or layer folder, uncheck it. To expand or collapse a layer folder, click **+** or **-**.

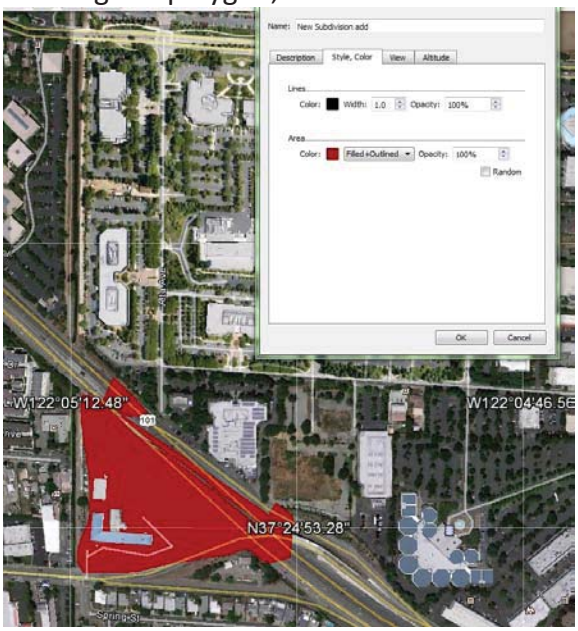


To Add Polygon

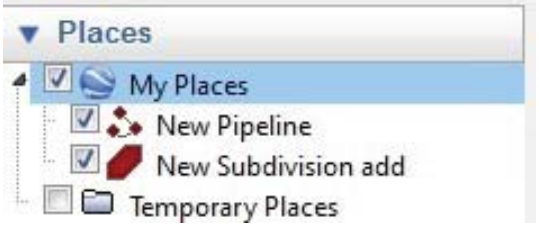
1. Click the Add Polygon button. A dialog box will open asking you to name your polygon. You can also change the Style, Color. ***DO NOT CLICK "OK" yet**



2. Once you've named your polygon, you can now go into the map and start drawing in the area that you want. *Notice when you go into the map your drawing tool will look like a square symbol*⊞. After you finish drawing the polygon, then click OK in the dialog box.



3. Your polygon will show up under the Places panel.

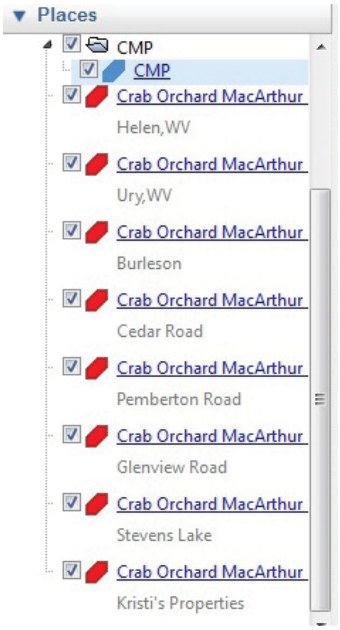


Save your polygon as a .kml or .kmz file

1. Right-click on your polygon file (it will be under the Places panel) and select the ***Save Place As…*** option.

2. In the dialog box that opens, select the folder to where you want to save the file on your computer. From the ***Save as type*** dropdown, select either .Kml or .Kmz
   Note: Do not use the email button from the Google Earth toolbar to send us the file 

   ****If you've created multiple files, you will have to right-click and Save Places As… for each individual file that you want included in your update.**** For example: In the following screen shot, 8 different files were created therefore a .kml or .kmz file will have to be created for each of those files.



3. You can now email the .kml or .kmz files to gismail@texas811.org along with the Database Submission Form.

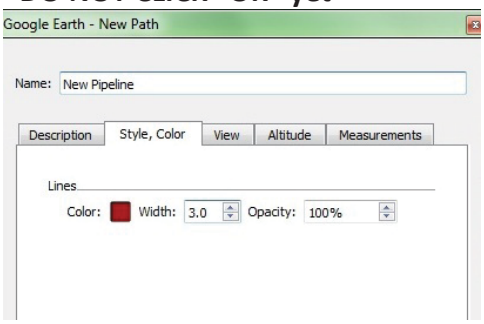
Merging Multiple KML/KMZ Files to Create One File

****If you have several kmz or kml files created through Google Earth, you can merge them using these steps:**

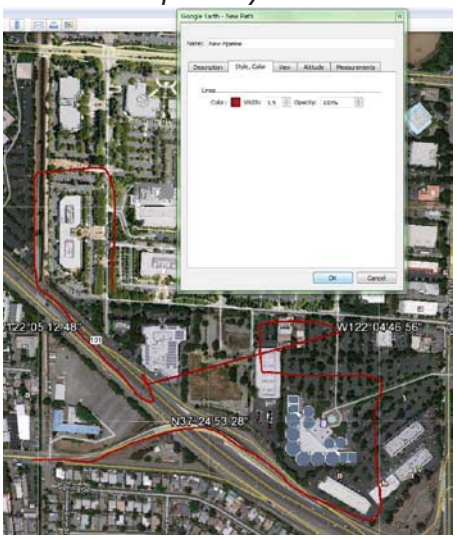
1. Go to File, then Open and select all the kmz or kml files you wish to merge. They will show up in your "Temporary Places" folder.
2. For better organization, Create a new folder and drag all the files you wish you merge into that folder. You can rename that folder. If you create multiple folders, make sure all your folders are within one main folder.
3. To save your big file, right click on your main folder and select "Save Place As..".
4. Pick a name for your file and you're done!
5. You can now email that 1 .kml or .kmz file to gismail@texas811.org along with the Database Submission Form.

To Add Path

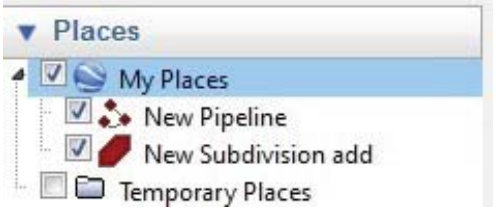
1. Click the Add Path button  . Give your path a name. You can change the Color and Width of the line. ***DO NOT CLICK "OK" yet**



2. Once you've given your path a name, you can now start drawing the path. *Notice your drawing tool will look like a square symbol*⌗. After you finish drawing the path or line, then click OK in the dialog box.



3. Your path will show up under the Places panel.

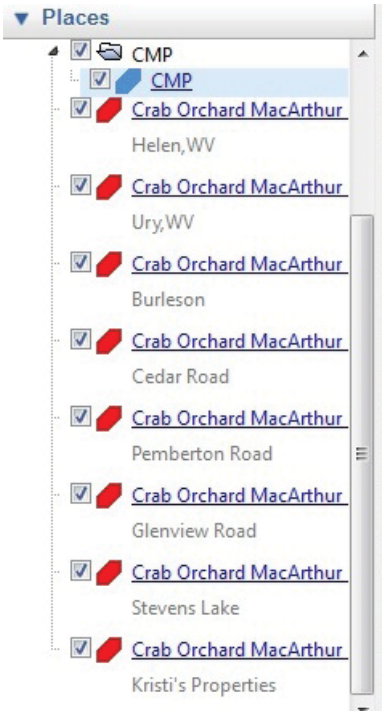


Save your path as a .kml or .kmz file

1. Right-click on your path file (it will be under the Places panel) and select the ***Save Place As…*** option.

2. In the dialog box that opens, select the folder to where you want to save the file on your computer. From the ***Save as type*** dropdown, select either .Kml or .Kmz Give your file a name and then click ***Save***.
Note: Do not use the email button from the Google Earth toolbar to send us the file 

****If you've created multiple files, you will have to right-click and Save Places As… for each individual file that you want included in your update.**** For example: In the following screen shot, 8 different files were created therefore a .kml or .kmz file will have to be created for each of those files.



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2. For better organization, Create a new folder and drag all the files you wish you merge into that folder. You can rename that folder. If you create multiple folders, make sure all your folders are within one main folder.
3. To save your big file, right click on your main folder and select "Save Place As..".
4. Pick a name for your file and you're done!
5. You can now email that 1 .kml or .kmz file to gismail@texas811.org along with the Database Submission Form.

****If additional help is needed, Google Earth provides additional resources located in the Help section and there are several tutorials available on YouTube.****

Municipality:

Table Mitigation-2: Mitigation Site Identification and Location Table

	1	2	3	4	5	6	7	8	9	10
Mitigation Site Number (From Table Mitigation-1)	Number of Municipalities That Would Benefit	Number of Hazard Sites Mitigation Would Impact	Benefit Savings	Mitigation Cost	Mitigation Solution Eligible for Outside Funding	Is Mitigation Solution a passive or active solution	What is Status of Mitigation Project	Repair History	Public Education	Notes

Table Mitgation-2 is intended to obtain information on the benefits of each mitigation site. This information will be used to identify the mitigation sites that achieve the highest benefit to individual and adjoining municipalities by scouring each mitigation site using the metrics listed below. The County will look at a high scoring individual mitigation site or an area that collectively has a high score and label these priority areas. Priority areas will receive additional analysis to determine if one mitigation solution can achieve the goals of several mitigation solutions. If a mitigation solution can be found, a hydraulic analysis and conceptual design will be developed.

Guidelines For Table Mitigation-2: ***The task force member will fill in the Mitigation-2 table using these guidelines.***

1. Mitigation Site Prioritization Metrics: *Definition- Variables that are used to rank the efficacy of the Mitigation Solution which will identify the highest priority Mitigation Sites.*
Instructions for Submittal- Select "Low" or "Moderate" or "High" for each category from the drop down menu in Table Mitigation-2

Column Number	Category	Low	Medium	High
1	Estimate of the Number of Municipalities That Would Benefit	1	2	3 or more
2	Number of Hazard Sites Mitigation Would Impact	1	2 or 3	Greater than 3
3	Benefit Savings	<$10,000 or Long Term Benefits cannot reasonably be established at this time	$10,000 to $100,000 or Project will have a long-term impact on the reduction or risk exposure	>$100,000 or Project will have an immediate impact on the reduction of risk exposure to life and property
4	Mitigation Cost	<$10,000 or Possible to Fund under existing municipal budget	$10,000-$100,000 or could budget for under existing work-plan but would require a reapportionment of the budget or a budget amendment	>$100,000 or project would require an increase in revenue via an alternative source (bonds, grants)
5	Mitigation Solution Eligible for Outside Funding	High Certainty this solution will be funded with outside funding or already has secured outside funding	Moderate Certainty this solution will be funded with outside funding	Low Certainty this solution will be funded with outside funding
6	Is Mitigation Solution a passive or active solution	Active, requires an outside energy source to function.		Passive, requires no outside energy to function.
7	What is Status of Mitigation Project	New	Study Completed and Design Needed (DN)	Shovel Ready
8	Repair History	Repair to Asset has never happened before	Repair to Asset has occurred once within the last ten years	Repair to Asset occurs annually
9	Public Education	Low certainty that mitigation solution will educate public about hazard	Moderate certainty that mitigation solution will educate public about hazard	High certainty that mitigation solution will educate public about hazard
10	**Notes**	Stakeholder can add notes describing periodization variables		

Municipality:

TABLE Mitigation-1: Mitigation Site Identification and Location Table – Use multiple sheets if necessary

1	2	3	4a	4b	5	6
Mitigation Site Number (M1, M2, etc)	**Hazard Site Number**	**Proposed Mitigation Plan**	**Mitigation Site Location (Lat)**	**Mitigation Site Location (Long)**	**Mitigation Project Type**	**Notes**

Table Mitigation-1 is intended to obtain the information necessary to place currently planned mitigation sites on a map. Hazard locations are the problem ; Mitigation sites are the solutions. Mitigation sites can be in the same or different location than the hazards identified in the Hazard tables. The County needs to separate them into two categories to complete the watershed analysis. The County will then look for areas on the map that have a high density of mitigation solutions. These will be priority areas. The County will then identify if there are multiple mitigation solutions proposing to do a similar activity. We will then perform an analysis to understand if one mitigation solution could achieve the goal of several individual solutions and mutually benefit several municipalities.

Guidelines For Table Mitigation-1: *The task force member will fill in the Mitigation-1 table using these guidelines*

1. Mitigation Site Number (Column 1): *Definition- An area or project identified to prevent/alleviate the Hazard Types.*
Instruction for Submittal- Randomly assigned Mitigation Site ID (M1, M2…) . Use multiple sheets if necessary, editing Hazard Site number as appropriate.

2. Hazard Site Number (Column 2)*: Definition- What Hazard is the proposed activity mitigating? Instruction for Submittal- Write in the corresponding Hazard Site ID (from Table Hazard-1). If the mitigation site addresses more than one Hazard Site, separate each Hazard Site ID number with a comma.*

3. Proposed Mitigation Plan (Column 3): *Definition- Has this site been included in any flood mitigation plan to date*
Instruction for Submittal- Please list any of the following and only list each mitigation site once, if the mitigation site appears in multiple plans, the user can choose any plan.

HMP – Broome County Hazard Mitigation Plan
NYR - NY Rising Plan-
MP - Municipal Plan Mitigation Site Proposed in a Municipal Lead Plan (Indicate the name of the municipal plan. This may include a comprehensive plan, flood mitigation plan, or other. If mitigation site)
NA - Site has not been identified in any plan.

4. Mitigation Site Location (Column 4a and 4b): *Definition- The location where the Mitigation Site is Proposed.*

Instruction for Submittal- Choose one of the following submittal options.

- If the Mitigation Site is a single location: List the latitude and longitude (in decimal degrees) where the Mitigation Site occurs (preferred) in table H-1. You can use www.bcgis.com to assist you. At bcgis.com, select 'parcel information', then United Parcel Information System, zoom to your location and press the coordinates button underneath the secondary tools and record the coordinates from the new window that appears.
- If the Mitigation Site is a linear feature: Provide as Google Earth .kmz file (instructions attached), ArcGIS shapefile, or on a paper map which can be scanned or mailed. Please ensure each hazard is identified with its corresponding ID (M1, M2…) per the tables. You can also use www.bcgis.com to assist you. If the user chooses to use www.bcgis.com, they will fill out the Mitigation Site column differently. If the mitigation site is a linear feature, the user will provide the Mitigation ID number followed by a "start" and an "end" respectively. For example, if Mitigation ID 1 (M1) is a linear feature, the user will add an $M1_{start}$ and an $M1_{end}$ in the Mitigation Site Column. Please refer to Figure-3 for example.
- If the Mitigation Site is an area: Provide as Google Earth .kmz file (instructions attached), ArcGIS shapefile, or on a paper map which can be scanned or mailed. Please ensure each Mitigation Site is identified with its corresponding ID (M1, M2…) per the tables. You can also use www.bcgis.com to assist you. If the user chooses to use www.bcgis.com, they will fill out the Mitigation Site column differently. If the Mitigation Site is an area, the user will provide the Hazard ID number followed by a letter. Start with "A" and continue this nomenclature around the hazard's area "marking" the boundary. For example, if the Mitigation Site's ID is M1 and is an area the user will add an $M1_A$, $M1_B$,… until the boundary has been roughly delineated. There is no required spacing between the "markings", the user should include enough markings to make a rough boundary. Please refer to Figure-4 for example.

5. Mitigation Project Type (Column 5): *Definition- The proposed action at the Mitigation Site.*

Instruction for Submittal- Please select one of the following from the drop down menu in Table M-1. If there is more than one proposed action create a new Mitigation Site Number.

- *Property Protection (PP)* Actions that reduce potential damage to buildings by acquisition, elevation, relocation and structural retrofits
- *Flood Damage Prevention (FD)* Actions that lower flood water elevations or prevent future losses (such as channel and floodplain modifications, floodplain reclamation)
- *Natural Resource Protection (NR)* Actions that minimize Hazard Loss and preserve or restore the function of natural systems such as soil stabilization measures such as bank protection and stabilization, wetland restoration, attenuation of peak flows through detention facilities and debris management.
- *Structural Projects (SP) A*ctions that use or modify structures to mitigate a hazard such as replacement or retrofit of bridges, culverts, protection of critical utilities, levees, floodwalls and dams.
- *Emergency Services (ES* Actions that protect people and property, during and immediately following a disaster or hazard event includes of essential facilities or critical transportation routes.
- *Public Education (PE)* Can the project serve as an educational tool to the community to protect themselves and the community from flood disasters and associated losses.

6. Notes: (Column 6):

Instruction for Submittal- Add any additional pertinent information describing the mitigation site. For Example: If funding has been secured from which source, mitigation site will be built next year, mitigation site has been identified by constituents as very important.

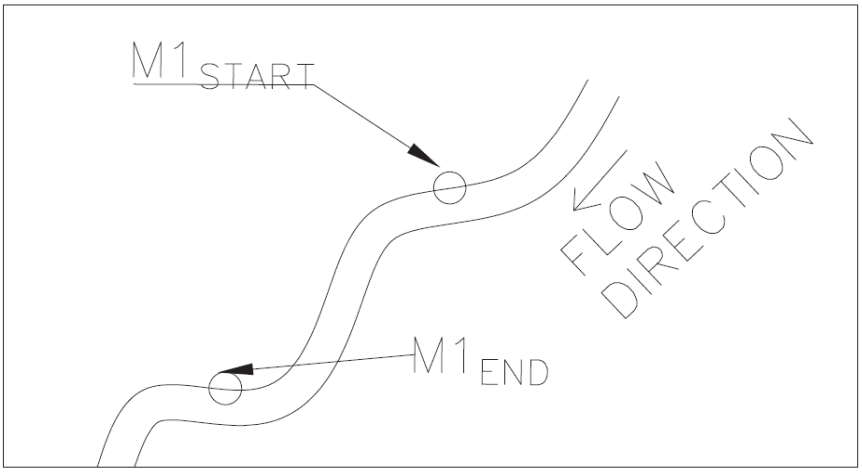


TABLE MITIGATION–1						
MITIGATION SITE(M1, M2, M3...)	PROPOSED MITIGATION PLAN	MITIGATION SITE LOCATION (LAT)	MITIGATION SITE LOCATION (LONG)	MITIGATION SOLUTION FOR WHICH HAZARD SITE(S) (FROM TABLE HAZARD–1)	MITIGATION PROJECT TYPE COLUMN 1	MITIGATION PROJECT TYPE COLUMN 2
$M1_{START}$	HMP	–76.069	42.204	H1	FD	NR
$M1_{END}$		–76.214	42.084			

Figure-3

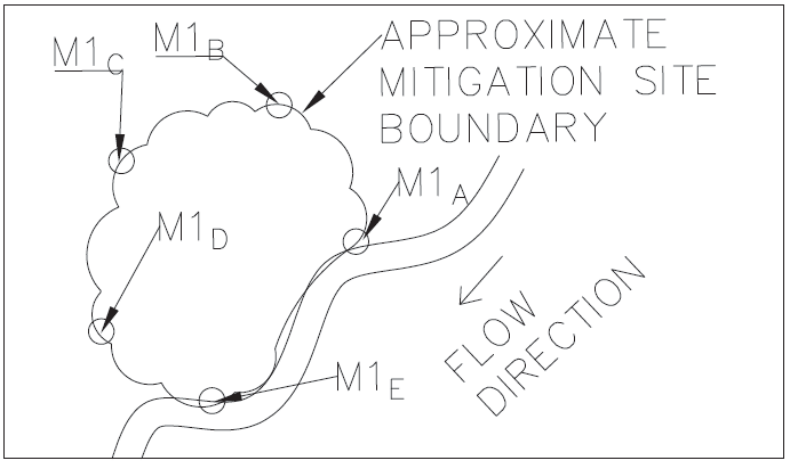


TABLE MITIGATION–1						
MITIGATION SITE(M1, M2, M3...)	PROPOSED MITIGATION SITE	MITIGATION SITE LOCATION (LAT)	MITIGATION SITE LOCATION (LONG)	MITIGATION SOLUTION FOR WHICH HAZARD SITE(S) (FROM TABLE HAZARD–1)	MITIGATION PROJECT TYPE COLUMN 1	MITIGATION PROJECT TYPE COLUMN 2
$M1_A$	HMP	–76.069	42.204	H1	FD	NR
$M1_B$		–76.214	42.084			
$M1_C$		–76.313	42.153			
$M1_D$		–76.124	42.192			
$M1_E$		–76.023	42.112			

Figure-4

Municipality: _____

TABLE Hazard-2: Hazard Impact Table – Use multiple sheets if necessary – (if you are completing the digital form, please save each sheet with a unique name)

Hazard Site # (From Table Hazard-1)	Neighborhood Community Impact	Critical Transportation Corridors Impact	Critical Infrastructure Impact	Community Economic Impact	Duration Impact	Increase of Hazard Occurring In Last 5 years Impact	Notes

Table Hazard-2 is intended to obtain the impacts of each hazard. This information will be used to identify the hazards that cause the most deleterious impacts by "scoring" each hazard using the impacts listed below. The County will use this information to prioritize individual hazard locations or a "Priority Area" as described in Table Hazard -1. Higher priority Hazard locations or "Priority Areas" will be a focus for mitigation solutions.

Guidelines For Table Hazard-2: ***The task force member will fill in the Hazard-2 table using these guidelines.***

1. Hazard Impact: *Definition- The negative consequence resulting from the Hazard.*
Instructions for Submittal: Select "Low" or "Moderate" or "High" for each category from the drop down menu in Table Hazard-2

Category	Low Impact	Medium Impact	High Impact
Neighborhood Community Impact	Hazard impacts one or less land owner, commuter, business, etc.	Hazard impacts one to five land owners, commuters, business, etc.	Hazard impacts more than five land owners, commuters, business, etc
Critical Transportation Corridors Impact	Minor road, multiple detour routes possible	Moderately used road, single short (<0.5mi) detour possible	Major road, frequently used for emergency services, long detour (>0.5 mi) required
Critical Infrastructure Impact	No Critical infrastructure impacted	1 or more Critical infrastructure damaged but functionality can be maintained	1 or more Critical infrastructure damaged and must be shut down
Community Economic Impact	Little to no economic impact to community	Moderate economic impact to the community	Major economic impact to the community
Duration Impact	Hazard will render the Asset unusable for less than 12 hours	Hazard will render the Asset unusable for between 12 hours to 24 hours	Hazard will render the Asset unusable for more than 24 hours
Increase of Hazard Occurring In Last 5 years Impact	No noticeable increase	Marginal increase	Noticeable increase
Notes	Stakeholder can add notes describing impact		

Municipality: _____ **Contact Name:** _____

Contact Email: _____ **Contact Phone:** _____

Table Hazard-1: Hazard Type and Location Table – Use multiple sheets if necessary – (if you are completing the digital form, please save each sheet with a unique name)

1	2a	2b	3	4	5	6
Hazard Site Number	Hazard Site Location (Lat)	Hazard Site Location (Long)	Hazard Type	Frequency of Hazard Occurring	Date(s)	Notes/Description/Name of Building or Road (etc.)

Table Hazard-1 is intended to obtain the information necessary to place the hazard locations on a map and to characterize the cause and frequency of the hazard. The County will then look for areas on the map that have a high density of hazards. These will be priority areas. The County will then identify if there are common causes to the Hazards and look for mitigation opportunities that address many hazards at once.

Guidelines For Table Hazard-1: ***The task force member will fill in the Hazard-1 table using these guidelines.***

1. Hazard Site Number (Column 1): *Definition- An area where a Hazard Type occurs (refer to Hazard Type Definition).*
Instructions for Submittal-Randomly assign a Hazard ID in the column in Table Hazard-1 (H1, H2, H3…). Use multiple sheets if necessary, editing Hazard Site number as appropriate.

2. Hazard Site Location (Column 2a and 2b)*: Definition- The location where the Hazard Type occurs.*
Instruction for Submittal- Choose one of the following submittal options.

- If the hazard is a single location: List the latitude and longitude (in decimal degrees) where the hazard occurs (preferred) in table H-1. You can use www.bcgis.com to assist you. At bcgis.com, select 'parcel information', then United Parcel Information System, zoom to your location and press the coordinates button underneath the secondary tools and record the coordinates from the new window that appears.

- If the hazard is a linear feature: Provide as Google Earth .kmz file (instructions attached), ArcGIS shapefile, or on a paper map which can be scanned or mailed. Please ensure each hazard is identified with its corresponding Hazard ID (H1, H2…) per the tables. You can also use www.bcgis.com to assist you. If the user chooses to use www.bcgis.com, they will fill out the Hazard Site column differently. If the hazard is a linear feature, the user will provide the Hazard ID number followed by a "start" and an "end" respectively. For example, if Hazard ID 1 (H1) is a linear feature, the user will add an $H1_{start}$ and an $H1_{end}$ in the Hazard Site Column. Please refer to Figure-1 for example.

- If the hazard is an area: Provide as Google Earth .kmz file (instructions attached), ArcGIS shapefile, or on a paper map which can be scanned or mailed. Please ensure each hazard is identified with its corresponding ID (H1, H2…) per the tables. You can also use www.bcgis.com to assist you. If the user chooses to use www.bcgis.com, they will fill out the Hazard Site column differently. If the hazard is an area, the user will provide the Hazard ID number followed by a letter. Start with "A" and continue this nomenclature around the hazard's area "marking" the boundary. For example, if the Hazard's ID is H1 and is an area the user will add an $H1_A$, $H1_B$,… until the boundary has been roughly delineated. There is no required spacing between the "markings", the user should include enough markings to make a rough boundary. Please refer to Figure-2 for example.

3. Hazard Type (Column 3): *Definition- The cause of the hazard.*
Instructions for Submittal- Choose one or more of the listed hazard types from the drop down menu in Table H-1. If there is more than one Hazard type per location, create a new Hazard Site Number.

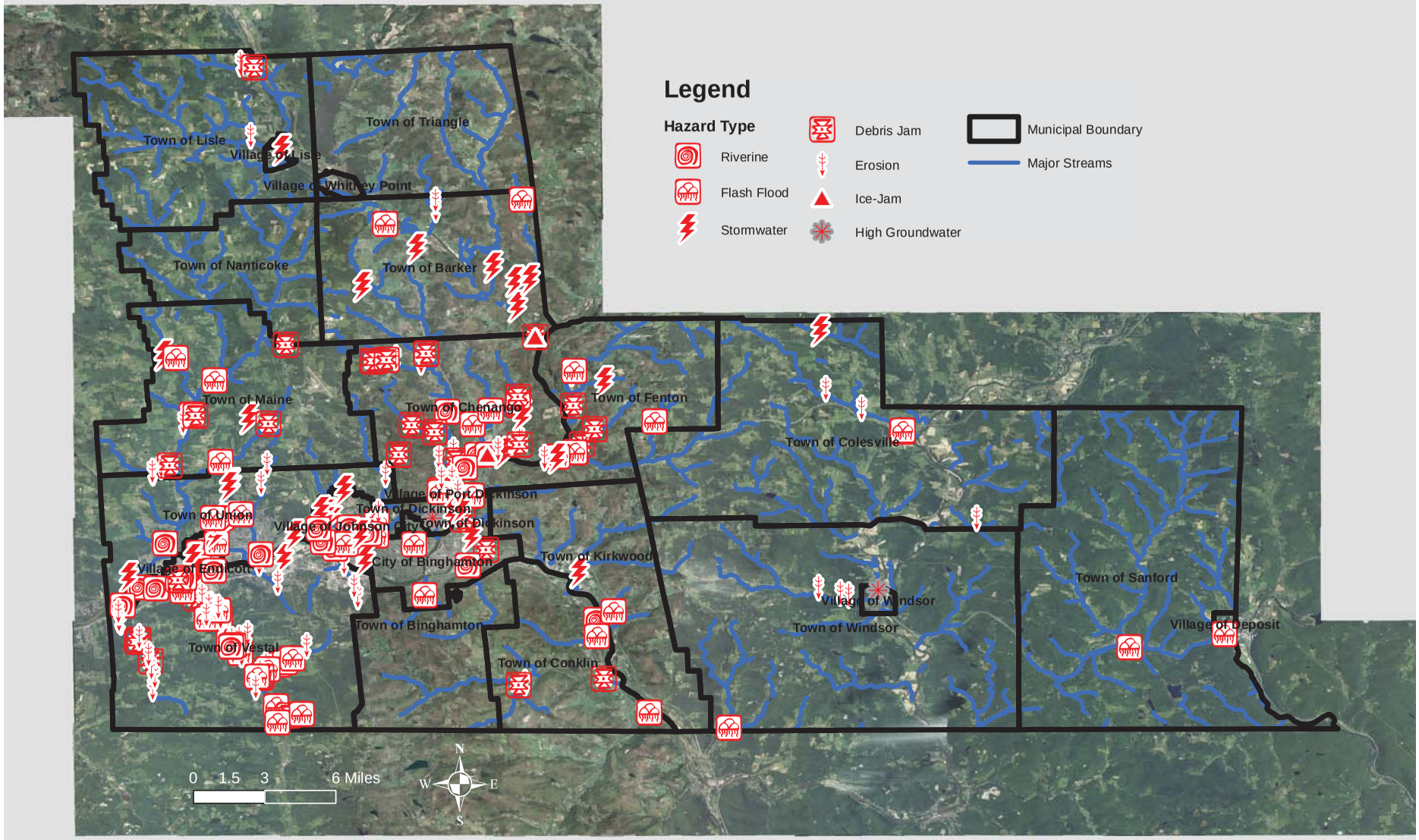
- **Riverine Flood Hazard:** A location where overflow from a river, stream or creek channel (a published DEC water corridor) that damages assets and often results in a federal disaster declaration. This type of flooding generally occurs more than six hours after peak rainfall.
- **Flash Flood Hazard:** A location where a rapid and extreme flow of high water overflows from a river, stream or creek channel (a published DEC water corridor) into normally dry area beginning within six hours of an intense rainfall event. Ongoing flooding can intensify to flash flooding in cases where intense rainfall results in a rapid surge of rising flood waters i.e. a minor flooding event rapidly becomes a larger flooding event after another burst of intense rain.
- **Stormwater Flood Hazard:** A locations were damage to asset occurs resulting from insufficient capacity of private or municipal stormwater drainage infrastructure. This includes ditches, catch basins and piping systems.
- **Debris Jam Flood Hazard:** A location where damage to assets occurs resulting from flooding or erosion that is caused by debris reducing the capacity of water corridors, bridges, culverts or stormwater drainage infrastructure. Debris can be wood, bedload (stones moved by water in streams) or manmade (sofas, car parts).
- **Erosion Hazard:** Eroding Banks that threaten public or private infrastructure. Threatened infrastructure is near an actively eroding bank (notable movement of bank over the last five years) and the rate of erosion could threaten infrastructure within the next five years.
- **Ice-Jam Flood Hazard:** A location where damage to assets occur resulting from flooding or erosion caused by ice jams. An ice jam is an accumulation of ice that acts as a natural dam and restricts flow of a body of water. Ice jams may build up to a thickness great enough to raise the water level and cause flooding.
- **High Groundwater Level Flood Hazard:** An area where damage occurs in areas not connected to recognizable drainage channels. Through a combination of infiltration and surface runoff (sheet flow) water may accumulate and cause flooding problems generally in concave basins.
- **Unknown Flooding Hazard:** The cause of flooding is not known.

4. Frequency of Hazard Occurring (Column 4): *Definition-How often the Hazard occurs.*
Instruction for Submittal- Choose one of the listed frequencies from the drop down menu in table H-1. Select the more frequent category that best fits the Hazard. If the hazard is an erosion hazard, assign a frequency that either describes how often a repair is done at the eroding bank or how frequent the bank erodes 2-4'of streambank.

- **Frequent:** Occurs approximately once every 25 years
- **Somewhat Frequent:** Occurs approximately once every 10 years
- **More Frequent:** Occurs approximately once every 5 years
- **Very Frequent:** Occurs approximately once every year
- **Extremely Frequent:** Occurs more than once per year

5. Dates of Hazard Occurring (Column 5):
Instruction for Submittal- Enter an exact date if know or a month and year it occurred, or if it occurs seasonally, enter the season.

6. Notes/Description/Name of Building or Road, Etc. (Column 6):
Instruction for Submittal- Add any additional pertinent information describing the hazard. For example: name of important building(s) that were damaged, hazard lasts a couple of hours and then is gone, hazard occurs only when a piece of infrastructure fails (pump).



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BACKGROUND PHOTO:
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DATE: 5/20/15
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO:
FIGURE NUMBER
1

BROOME COUNTY
LOCATION OF FLOODING HAZARDS

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

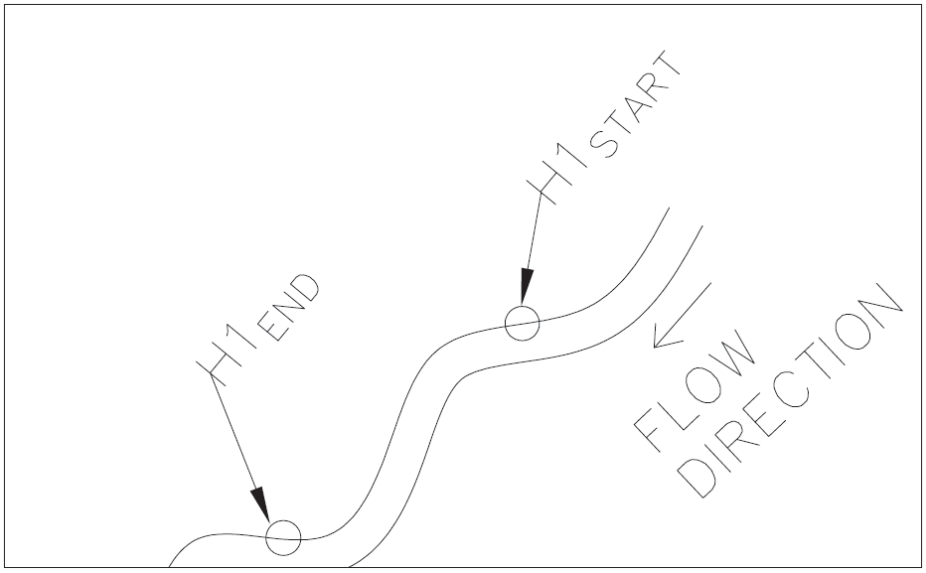


TABLE HAZARD–1						
HAZARD SITE #	HAZARD SITE LOCATION (LONG)	HAZARD SITE LOCATION (LAT)	HAZARD TYPE	FREQUENCY OF HAZARD OCCURRING	DATE(S) OF HAZARD OCCURRING	NOTES/DESCRIPTIONS /NAMES OF BUILDINGS OR ROAD (ETC.)
$H1_{START}$	–76.06934	42.2042	EROSION HAZARD	VERY FREQUENT	UNKNOWN	THREE HOMES AT 123 SOUTH THREATENED
$H1_{END}$	–76.2148	42.0835				

Figure -1

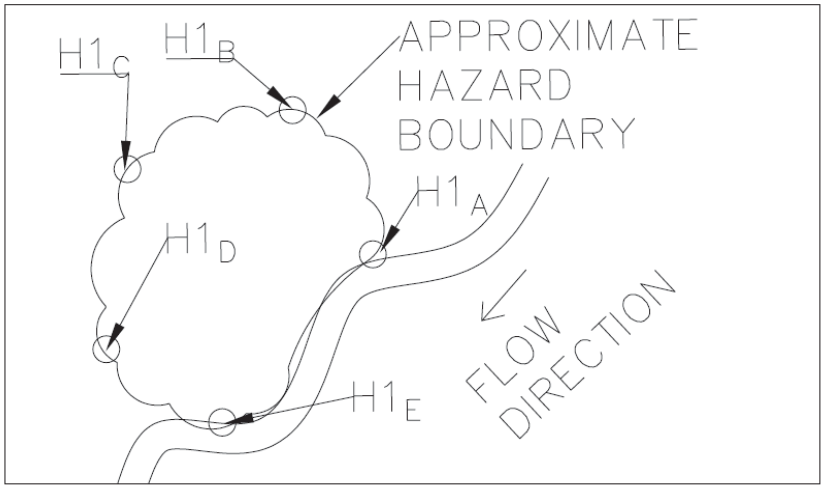


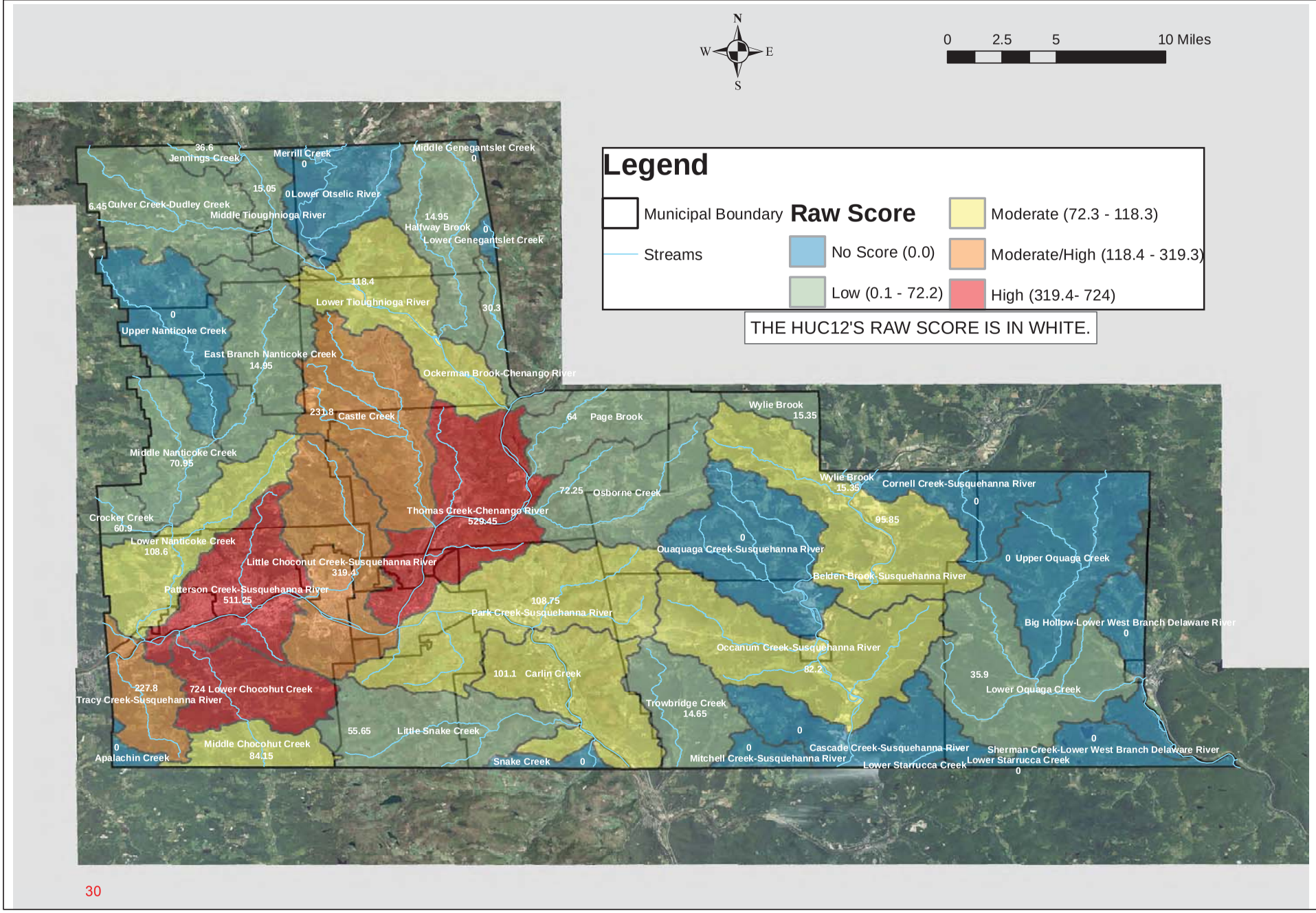
TABLE HAZARD–1						
HAZARD SITE #	HAZARD SITE LOCATION (LONG)	HAZARD SITE LOCATION (LAT)	HAZARD TYPE	PROBABILITY OF HAZARD OCCURING	DATE(S) OF HAZARD OCCURING	NOTES/DESCRIPTIONS /NAMES OF BUILDINGS OR ROAD (ETC.)
$H1_A$	–76.069	42.204	FLASH FLOOD	VERY FREQUENT	8/1/13	HOMES BETWEEN ASH AND POPULAR STREETS FLOODED
$H1_B$	–76.214	42.084				
$H1_C$	–76.313	42.153				
$H1_D$	–76.124	42.192				
$H1_E$	–76.023	42.112				

Figure -2

HazardNum	Hazard_Typ	Lat	Long	Frequency	Dates	Notes	Neighb	Transp	Infrastr	Econom	Duratio	Increas	Total	Ranked_Scc	HUC12Name
BARKER-1	Stormwater	42.257	-75.859	Frequent		Juneberry Ct	3	1	1	3	1	3	12	12.75	Lower Chocohut Creek
BARKER-10	Stormwater	42.269	-75.954	More Frequent	20042005	NY Route 7 (Conklin Rd.)/St	3	5	1	3	3	5	20	21.65	Carlin Creek
BARKER-2	Stormwater	42.272	-75.861	Frequent		Castle Gardens Area	5	3	5	5	5	1	24	25.65	Lower Chocohut Creek
BARKER-3	Stormwater	42.281	-75.874	Somewhat Frequ	11/2006, 2	1 house and bridge can floo	1	5	1	1	1	1	10	11.25	Crocker Creek
BARKER-4	Stormwater	42.273	-75.852	Frequent	2006,2009,	Pollard Hill Bridge at trailer p	5	3	1	1	5	3	18	18.95	Middle Nanticoke Creek
BARKER-5	Flash Flood	42.322	-75.857	Very Frequent		on SR 26, loss of bank ~50'	1	1	1	1	0	5	9	9.65	Middle Nanticoke Creek
BARKER-6	Erosion	42.312	-75.909	Frequent	11-Sep	Twin Orchards area	5	5	5	5	5	1	26	28.05	Lower Chocohut Creek
BARKER-7	Erosion	42.318	-75.91	Somewhat Frequ	8/9/2011	Wastewater Treatment Plan	5	1	5	5	5	3	24	25.35	Lower Nanticoke Creek
BARKER-8	Stormwater	42.292	-75.921	More Frequent	2006, 2011	Minor flooding	5	3	1	1	3	3	16	16.95	Lower Nanticoke Creek
BARKER-9	Flash Flood	42.307	-75.94	Frequent	2011	Eastwood drive pond's efflu e	1	1	1	1	1	1	6	6.45	Lower Nanticoke Creek
BCDOT-1	Erosion	42.151	-75.94			BHb	1	5	1	1	5	3	16	17.35	Crocker Creek
BCDOT-10	Flash Flood	42.039	-76.005	Frequent	2011	only in lee	5	5	1	3	5	1	20	21.45	Little Choconut Creek-Susquehanna River
BCDOT-11	Flash Flood	42.04	-76.001	More Frequent		Auxillary stormwater channe	5	1	1	3	5	5	20	20.85	Little Choconut Creek-Susquehanna River
BCDOT-12	Flash Flood	42.042	-75.997	Frequent	2011	spillway enganged	5	1	1	5	5	1	18	18.85	Little Choconut Creek-Susquehanna River
BCDOT-13	Debris Jam	42.054	-76.09	Extremely Frequ	2006/2011	Chenango Br. Golf.	1	1	1	1	1	3	8	8.55	Thomas Creek-Chenango River
BCDOT-14	Debris Jam	42.041	-76.083	Frequent	2006	Panorama Trash Rack	5	1	1	3	1	5	16	16.85	Thomas Creek-Chenango River
BCDOT-15	Erosion	42.061	-76.101	Somewhat Frequ	2006/2001	Adams St	3	1	1	1	1	1	8	8.45	Thomas Creek-Chenango River
BCDOT-16	Erosion	42.097	-76.017	Very Frequent	2011 & 201	Road Shoulders washout 1	3	1	3	3	3	3	16	16.95	Osborne Creek
BCDOT-17	Stormwater	42.103	-76.002	Somewhat Frequ	4/2006, 11 /		3	1	1	1	3	1	10	10.45	Osborne Creek
BCDOT-18	Erosion	42.097	-75.965	Extremely Frequent	2011,2012,20 13	Dudley Creek	1	1	1	1	1	1	6	6.45	Culver Creek-Dudley Creek
BCDOT-19	Stormwater	42.146	-75.905	Frequent			5	1	1	1	5	5	18	18.65	Patterson Creek-Susquehanna River
BCDOT-2	Erosion	42.156	-76.076	Frequent	2006/2011	Water Street East	1	1	1	1	1	1	6	6.45	Castle Creek
BCDOT-20	Erosion	42.219	-75.918	More Frequent	20042005	NY Route 7 (Conklin Rd.)	5	5	5	5	3	5	28	30.25	Carlin Creek
BCDOT-21	Erosion	42.222	-75.934	Very Frequent	20042005	Carol Court Neighborhood	5	3	3	3	3	5	22	23.45	Carlin Creek
BCDOT-22	Stormwater	42.149	-76.034	More Frequent		Ganoungetown Rd over ??	1	3	1	1	1	3	10	10.95	Page Brook
BCDOT-23	Debris Jam	42.168	-75.824	More Frequent		At a driveway culvert	1	1	1	1	5	3	12	12.55	Middle Nanticoke Creek
BCDOT-24	Debris Jam	42.173	-75.821	More Frequent		homes on W bank nanticoke	5	3	1	1	3	3	16	16.95	Middle Nanticoke Creek
BCDOT-25	Debris Jam	42.182	-75.813	Frequent	2011	County dam's spillway wash	1	3	1	1	5	1	12	12.85	Middle Nanticoke Creek
BCDOT-26	Stormwater	42.211	-75.807	Very Frequent		Old Rt 17 near Shedd Rd -- Occanum Cr	1	5	1	1	5	3	16	17.35	Occanum Creek-Susquehanna River
BCDOT-27	Erosion	42.082	-75.676	Frequent			1	5	1	1	1	3	12	13.35	Middle Chocohut Creek
BCDOT-28	Erosion	42.078	-75.663	Frequent	11-Sep	Crumm Rd culvert	5	3	3	3	5	3	22	23.35	Middle Chocohut Creek
BCDOT-29	Erosion	42.077	-75.658	Frequent		State Line Ck	3	5	1	3	1	3	16	17.55	Middle Chocohut Creek
BCDOT-3	Erosion	42.401	-76.028	Very Frequent		Bha	1	5	1	1	5	3	16	17.35	Crocker Creek
BCDOT-4	Flash Flood	42.031	-76.018	More Frequent		upper Fuller Hollow Ck	5	1	3	5	1	3	18	19.15	Little Choconut Creek-Susquehanna River
BCDOT-5	Flash Flood	42.053	-76.035	Somewhat Frequ		Washington Bridge	5	5	5	5	5	3	28	30.15	Little Choconut Creek-Susquehanna River
BCDOT-6	Flash Flood	42.013	-76.007	Very Frequent		GLENDALEa	5	5	1	5	3	1	20	21.65	Lower Nanticoke Creek
BCDOT-7	Debris Jam	42.031	-76.016	Somewhat Frequ		lower Fuller Hollow Ck	5	1	3	5	1	3	18	19.15	Little Choconut Creek-Susquehanna River
BCDOT-8	Erosion	42.035	-76.013	More Frequent	11/2006, 2	Fallbrook Rd. Bridge fills wit	3	5	1	1	5	3	18	19.35	Little Snake Creek
BCDOT-9	Flash Flood	42.036	-76.012	Very Frequent	11/2006	Houses Flood	3	5	1	1	5	3	18	19.35	Little Snake Creek
BinghamtonC-	Debris Jam	42.108	-75.879	Very Frequent		Bear Swamp Road, pipes al	1	3	1	1	5	3	14	14.95	Ockerman Brook-Chenango River
BinghamtonC-	Flash Flood	42.081	-75.916	Somewhat Frequ		Sapbush Road, 1/4 mile S o	1	5	1	1	3	3	14	15.35	Ockerman Brook-Chenango River
BinghamtonC-	Riverine	42.099	-75.89	More Frequent		Ballyhack Rd over Osborne Creek	3	3	1	1	3	3	14	14.95	Osborne Creek
BinghamtonC-	Stormwater	42.117	-75.887	More Frequent		Ballyhack Rd over Ballyhack Creek	3	3	1	1	3	3	14	14.95	Osborne Creek
BinghamtonC-	Debris Jam	42.127	-75.893	More Frequent	2011	Bad design at school bridge	3	3	3	3	3	3	18	19.35	Patterson Creek-Susquehanna River
BinghamtonC-	Flash Flood	42.112	-75.922	Frequent		Spillway enganged	1	1	1	1	3	1	8	8.45	Patterson Creek-Susquehanna River
Chenango-1	Flash Flood	42.145	-75.907	Extremely Frequ		PMCDa	3	1	1	1	3	3	12	12.55	Patterson Creek-Susquehanna River
Chenango-10	Riverine	42.166	-75.885	Very Frequent		TLRa	1	5	1	1	5	3	16	17.35	Patterson Creek-Susquehanna River
Chenango-11	Erosion	42.161	-75.907	Very Frequent	6/2006, 2011	Water Over Road, Into Hous	5	5	5	1	5	3	24	25.75	Carlin Creek
Chenango-12	Riverine	42.166	-75.878	Extremely Frequ		Cka	5	5	1	1	3	3	18	19.35	Patterson Creek-Susquehanna River
Chenango-13	Ice-Jam	42.166	-75.878	Extremely Frequ		DARENa	3	5	1	1	3	3	16	17.35	Patterson Creek-Susquehanna River
Chenango-14	Debris Jam	42.238	-75.849	Very Frequent		wyak road bridge fills with d	1	3	1	1	5	3	14	14.95	Lower Nanticoke Creek
Chenango-15	Ice-Jam	42.238	-75.849	Frequent	11/2006, 2	river backs up and floods	5	1	5	5	5	1	22	23.25	Lower Nanticoke Creek
Chenango-16	Flash Flood	42.198	-75.859	Very Frequent		Tha	5	1	1	3	3	1	14	14.65	Patterson Creek-Susquehanna River
Chenango-17	Debris Jam	42.197	-75.86	More Frequent		NPDa	5	1	1	3	3	1	14	14.65	Patterson Creek-Susquehanna River
Chenango-18	Erosion	42.173	-75.858	Very Frequent		Spa	1	5	1	1	5	3	16	17.35	Patterson Creek-Susquehanna River
Chenango-19	Stormwater	42.19	-75.856	Frequent		Willow Run Ck	5	1	1	3	1	3	14	14.75	Patterson Creek-Susquehanna River
Chenango-2	Debris Jam	42.202	-75.859	More Frequent		Smith Hill Rd / Wallace Rd	3	5	1	1	3	3	16	17.35	Thomas Creek-Chenango River
Chenango-20	Stormwater	42.149	-75.901	Very Frequent		Debris blocks concrete box	5	1	1	3	3	3	16	16.75	Thomas Creek-Chenango River
Chenango-21	Debris Jam	42.184	-75.924	Extremely Frequ		Davis Road located on top o	1	3	1	1	5	5	16	17.05	Castle Creek
Chenango-22	Debris Jam	42.223	-75.948	More Frequent		Brooks Road - Brooks Creek	1	5	1	1	5	3	16	17.35	Castle Creek
Chenango-23	Erosion	42.165	-75.899	More Frequent		Brooks Rd over Brooks Creek	1	5	1	1	5	3	16	17.35	Castle Creek
Chenango-24	Stormwater	42.168	-75.868	Very Frequent		Pipe has under capacity iss u	5	1	1	3	3	5	18	18.85	Thomas Creek-Chenango River
Chenango-25	Riverine	42.159	-75.892		More Frequent	Wallace Road	5	1	1	5	5	5	22	23.05	Thomas Creek-Chenango River
Chenango-26	Flash Flood	42.185	-75.887	More Frequent	2006/2011	Broad Acres	5	5	1	5	5	5	26	27.85	Thomas Creek-Chenango River
Chenango-27	Riverine	42.193	-75.902	Somewhat Frequ	2006/2013	Dorman Road	5	5	1	5	5	5	26	27.85	Castle Creek
Chenango-28	Debris Jam	42.166	-75.932	Very Frequent		Flint Road, 2 crossings plug	1	3	1	1	5	3	14	14.95	East Branch Nanticoke Creek
Chenango-29	Erosion	42.149	-75.899	More Frequent	2006/2011	Chenango Bridge (12A)	5	5	3	5	3	5	26	28.05	Thomas Creek-Chenango River
Chenango-3	Debris Jam	42.228	-75.915	Very Frequent	11-May	Kelly Road	3	5	1	1	1	5	16	17.45	Castle Creek
Chenango-30	Flash Flood	42.144	-75.907	Somewhat Frequ	0	Route 12A ICE Watch	3	1	1	1	1	1	8	8.45	Thomas Creek-Chenango River
Chenango-31	Flash Flood	42.193	-75.876	Frequent	2013	River Road	5	5	1	3	1	3	18	19.55	Thomas Creek-Chenango River
Chenango-32	Erosion	42.149	-75.906	Somewhat Frequ	2006/2011	Kattelville Rd	3	5	1	1	1	3	14	15.35	Thomas Creek-Chenango River
Chenango-33	Erosion	42.166	-75.871	Somewhat Frequ	2006/2011	Poplar Sewer	1	1	3	1	1	1	8	8.65	Thomas Creek-Chenango River
Chenango-4	Debris Jam	42.172	-75.858	Frequent	2011	Airport Road/Landfill	3	1	1	1	1	3	10	10.55	Thomas Creek-Chenango River
Chenango-5	Debris Jam	42.163	-75.897	Somewhat Frequ	37053	Houdlum Hill	5	5	1	1	1	3	16	17.35	Castle Creek
Chenango-6	Debris Jam	42.228	-75.915	More Frequent	2006/2011	Castle Creek	3	1	1	1	1	5	12	12.65	Castle Creek
Chenango-7	Debris Jam	42.18	-75.91	Somewhat Frequ	2006/2011	Pennview	3	1	1	1	1	3	10	10.55	Castle Creek
Chenango-8	Debris Jam	42.223	-75.947	Frequent	2006/2011	Water Street West	3	5	1	1	5	3	18	19.35	Castle Creek
Chenango-9	Debris Jam	42.224	-75.939	Somewhat Frequ	2006	Booth Road	3	1	1	1	1	5	12	12.65	Castle Creek

HazardNum	Hazard_Typ	Lat	Long	Frequency	Dates	Notes	Neighb	Transp	Infrastr	Econom	Duratio	Increas	Total	Ranked_Scc	HUC12Name
Conklin_H1	Flash Flood	42.01	-75.779	Extremely Frequent	2006	Harts Road, Marsh Creek	1	5	1	1	5	5	18	19.45	Belden Brook-Susquehanna River
Conklin_H2	Riverine	42.066	-75.812	More Frequent	2010,2013	6 Houses Flood, Beldan Bro	5	5	3	1	5	5	24	25.65	Belden Brook-Susquehanna River
Conklin_H3	Flash Flood	42.056	-75.811	Very Frequent		Along Route 7	1	5	1	1	5	5	18	19.45	Belden Brook-Susquehanna River
Dickenson-1	High Groundwa	42.128	-75.911	Frequent	6-Nov	Oak Hill Culvert	5	3	1	1	1	1	12	12.85	Thomas Creek-Chenango River
Dickenson-2	Flash Flood	42.125	-75.945	Very Frequent		Pipes along Alexender Road	1	3	1	1	5	3	14	14.95	Halfway Brook
Dickenson-3	Flash Flood	42.117	-75.946	Very Frequent		Jennings Creek Road - Big Brook	1	5	1	1	5	3	16	17.35	Jennings Creek
Endicott_H1	Flash Flood	42.107	-76.054	More Frequent	2011	logs and bedload	5	1	1	3	3	5	18	18.85	Page Brook
Endicott_H10	Flash Flood	42.112	-76.043	Somewhat Frequ			1	1	5	1	5	3	16	16.95	Page Brook
Endicott_H2	Stormwater	42.103	-76.057	More Frequent	4/2006, 11 /		3	5	1	1	5	1	16	17.25	Page Brook
Endicott_H3	Riverine	42.086	-76.09	Somewhat Frequ		Main St Bridge	5	5	5	5	5	3	28	30.15	Lower Chocohut Creek
Endicott_H4	Riverine	42.106	-76.016	Very Frequent	6-Nov	Culvert at Robinson Rd.	5	3	3	3	3	3	20	21.35	Park Creek-Susquehanna River
Endicott_H5	Stormwater	42.094	-76.054	Somewhat Frequ		Park Creek along Park and	5	5	5	5	3	5	28	30.25	Park Creek-Susquehanna River
Endicott_H6	Riverine	42.091	-76.063	Frequent		East of Tompkins Ave, S of	5	1	1	3	3	3	16	16.75	Park Creek-Susquehanna River
Endicott_H7	Riverine	42.085	-76.08	More Frequent		possible cause I-81/17 storm	5	1	1	3	3	3	16	16.75	Park Creek-Susquehanna River
Endicott_H8	Riverine	42.096	-76.045	Very Frequent	20042005	DPW Garage	3	3	5	3	3	5	22	23.65	Park Creek-Susquehanna River
Endicott_H9	Riverine	42.074	-76.1	More Frequent	2011 &201	Port Crane Flooding Fire sta	3	3	3	1	3	5	18	19.25	Thomas Creek-Chenango River
Fenton_H1	Flash Flood	42.165	-75.836	Extremely Frequ	2006	Old Town Hall	5	5	1	1	1	5	18	19.45	Thomas Creek-Chenango River
Fenton_H2	Flash Flood	42.187	-75.776	Somewhat Frequ	4/2011, 8/2011	Bridge damaged	1	3	1	1	5	1	12	12.85	Middle Nanticoke Creek
Johnson_H1	Riverine	42.113	-75.978	More Frequent		Old Vestal Rd over Willow Run Creek	1	1	1	5	5	3	16	16.95	Patterson Creek-Susquehanna River
Johnson_H10	Stormwater	42.111	-75.952	Very Frequent	2012,2013	2 Homes Flood from Jennin	3	3	1	3	3	5	18	19.25	Jennings Creek
Johnson_H11	Stormwater	42.102	-75.952	Very Frequent		Middle Stella Ireland Rd - Little Chocon	1	1	1	1	5	3	12	12.55	Little Choconut Creek-Susquehanna River
Johnson_H12	Stormwater	42.13	-75.972	More Frequent		Old Vestal Rd over Fuller Hollow Creek	1	1	1	5	5	3	16	16.95	Little Choconut Creek-Susquehanna River
Johnson_H2	Riverine	42.118	-75.963	Somewhat Frequ	2011	Aitchison Road	5	1	1	1	1	3	12	12.55	Little Choconut Creek-Susquehanna River
Johnson_H3	Riverine	42.119	-75.955	Somewhat Frequ	2011	Lower Stella Ireland Road	1	1	1	1	1	1	6	6.45	Little Choconut Creek-Susquehanna River
Johnson_H4	Riverine	42.122	-75.962	Somewhat Frequ	2011	Market st.	1	1	1	1	1	1	6	6.45	Little Choconut Creek-Susquehanna River
Johnson_H5	Stormwater	42.145	-75.965	More Frequent		Grand Ave / Burbank Ave	3	3	1	1	3	1	12	12.85	Little Choconut Creek-Susquehanna River
Johnson_H6	Stormwater	42.132	-75.979	Extremely Frequ		Old Vestal Rd Stormwater System	1	1	1	1	1	1	3	6.45	Patterson Creek-Susquehanna River
Johnson_H7	Riverine	42.121	-75.981	Very Frequent		Twist Run Road	3	5	1	1	3	3	16	17.35	Patterson Creek-Susquehanna River
Johnson_H8	Riverine	42.109	-75.971	More Frequent		Burbank Ave / Hill Ave	3	3	1	1	3	1	12	12.85	Little Choconut Creek-Susquehanna River
Johnson_H9	Flash Flood	42.112	-75.964	More Frequent		Reynolds Road Twin Culver	1	3	3	1	3	1	12	13.05	Little Choconut Creek-Susquehanna River
Kirkwood_H1	Stormwater	42.095	-75.822	More Frequent		Ballyhack Rd over Ballyhack Creek	3	3	1	1	3	3	14	14.95	Osborne Creek
Lisle_1	Stormwater	42.352	-76.003	Very Frequent		Glenwood Rd Bridge over Choconut Cre	1	5	1	1	5	3	16	17.35	Middle Chocohut Creek
MAINE-1	Flash Flood	42.191	-76.058	Very Frequent		Pipe not big enough, headw	1	5	1	3	5	3	18	19.55	Lower Tioughnioga River
MAINE-10	Erosion	42.183	-76.063	Very Frequent	2014, 2013	Dings Hollow Road, Pipe Un	3	3	1	1	3	1	12	12.85	Lower Tioughnioga River
MAINE-2	Debris Jam	42.19	-76.056	Very Frequent		Baker Hill Road, lost toe of r	1	3	1	1	5	1	12	12.85	Lower Tioughnioga River
MAINE-3	Flash Flood	42.212	-76.044	Extremely Frequ		Ellerson Road, water inunda	3	5	1	1	3	1	14	15.25	Lower Tioughnioga River
MAINE-4	Stormwater	42.227	-76.075	More Frequent	2006/2011	Parsons Rd/RR	3	5	1	1	1	5	16	17.45	Lower Tioughnioga River
MAINE-5	Flash Flood	42.225	-76.068	Frequent	2013	Parsons Rd/RR	3	5	1	1	1	3	14	15.35	Lower Tioughnioga River
MAINE-6	Flash Flood	42.162	-76.04	Somewhat Frequ		Sewer and Main St	5	5	5	5	5	3	28	30.15	Lower Chocohut Creek
MAINE-7	Stormwater	42.188	-76.023	Somewhat Frequ		Town Hall Building	5	1	5	5	3	3	22	23.35	Lower Chocohut Creek
MAINE-8	Debris Jam	42.185	-76.011	Frequent		Echo Rd Ck	5	1	1	3	1	3	14	14.75	Lower Chocohut Creek
MAINE-9	Debris Jam	42.233	-76.001	Very Frequent		Newark Valley Rd - Crocker Creek	1	3	1	1	5	3	14	14.95	Crocker Creek
Port_Dickinso	Flash Flood	42.142	-75.888	Very Frequent	Annual	Clarendon Drive	5	3	1	3	1	5	18	19.25	Thomas Creek-Chenango River
Port_Dickinso	Stormwater	42.131	-75.899	Frequent	2006/2011	Front Street	5	5	5	5	1	5	26	28.25	Thomas Creek-Chenango River
Public-1	Erosion	42.143	-75.897	More Frequent	6-Nov	John Smith Road	3	1	1	1	1	5	12	12.65	Thomas Creek-Chenango River
Public-2	Stormwater	42.134	-75.893	More Frequent	2011/2014	Van Etten	5	1	1	1	1	3	12	12.55	Thomas Creek-Chenango River
Public-3	Erosion	42.141	-75.896	More Frequent	2006/2011	Johnson Road	5	1	1	5	1	5	18	19.05	Thomas Creek-Chenango River
Public-4	Stormwater	42.117	-75.995	Extremely Frequ	14-May	Huron Campus	5	5	5	5	5	5	30	32.25	Patterson Creek-Susquehanna River
SWCD-1	Debris Jam	42.079	-76.056	More Frequent	11/2006	Piercer Creek Road Bridge	5	3	1	1	3	3	16	16.95	Little Snake Creek
SWCD-10	Flash Flood	42.051	-76.029	More Frequent		Powderhouse Rd Bridge over Sugar Cre	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-11	Flash Flood	42.046	-76.029	More Frequent		Powderhouse Rd Bridge over Sugar Cre	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-12	Debris Jam	42.031	-76.015	More Frequent		Powderhouse Rd Bridge over Sugar Cre	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-13	Erosion	42.046	-75.988	Very Frequent		West Hill Road Bridge over Choconut C	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-14	Debris Jam	42.008	-75.999	More Frequent	9/7/2004, 2005	Dublin St. Fireman's Park, D	5	3	3	1	3	3	18	19.15	Lower Oquaga Creek
SWCD-15	Debris Jam	42.052	-76.091	Somewhat Frequ	2006/2011	Clean out and reconstruct P	1	1	1	1	1	1	6	6.45	Thomas Creek-Chenango River
SWCD-16	Erosion	42.082	-75.959	Frequent	9/7/11 6/26	JC DPW - 124 Brown St.	5	3	5	5	5	3	26	27.75	Little Choconut Creek-Susquehanna River
SWCD-17	Erosion	42.128	-75.944	Frequent	9/7/11,6/26	JC Senior Center	3	3	1	3	5	3	18	19.15	Little Choconut Creek-Susquehanna River
SWCD-18	Riverine	42.118	-75.95	Frequent	9/7/11, 6/2	Northside Park	5	1	3	5	3	3	20	21.15	Little Choconut Creek-Susquehanna River
SWCD-19	Stormwater	42.118	-75.955	More Frequent	9/7/11,4/26	Reynolds Rd / Anna Maria D	5	1	1	1	1	3	12	12.55	Little Choconut Creek-Susquehanna River
SWCD-2	Debris Jam	42.09	-76.067	Very Frequent	14-May	Brixius Creek	5	5	5	5	5	5	30	32.25	Patterson Creek-Susquehanna River
SWCD-20	Stormwater	42.13	-75.976	Frequent		Boland Drive / Grand Avenu	5	3	1	1	3	3	16	16.95	Little Choconut Creek-Susquehanna River
SWCD-21	Flash Flood	42.128	-76.04	Extremely Frequ	41773	48" Storm Sewer	5	5	5	5	5	5	30	32.25	Patterson Creek-Susquehanna River
SWCD-22	Stormwater	42.118	-76.043	Somewhat Frequ	8/9/2011	Argonne Pumping Station	5	1	5	5	5	3	24	25.35	Patterson Creek-Susquehanna River
SWCD-23	Riverine	42.112	-76.074	Frequent		Brookhill -private home	1	1	1	1	1	3	8	8.55	Lower Chocohut Creek
SWCD-24	Debris Jam	42.16	-76.071	Frequent	2011	West Chenango Road	5	5	1	1	3	3	18	19.35	Castle Creek
SWCD-25	Debris Jam	42.196	-75.826	Very Frequent		Old Rt 17 near Grove Street Occanum C	1	5	1	1	5	3	16	17.35	Occanum Creek-Susquehanna River
SWCD-26	Erosion	42.212	-75.827	Very Frequent		Old Rt 17 - Occanum Creek	1	5	1	1	5	3	16	17.35	Occanum Creek-Susquehanna River
SWCD-27	Flash Flood	42.217	-75.825	Somewhat Frequ	2006/2011	Palmer School	5	5	5	5	5	3	28	30.15	Occanum Creek-Susquehanna River
SWCD-28	Flash Flood	42.168	-75.825	Somewhat Frequ	2012-2013	High Street-Main Street	3	3	1	1	1	5	14	15.05	Middle Tioughnioga River
SWCD-29	Stormwater	42.164	-75.835	More Frequent	2006/2011	Gilbert Creek	5	1	1	3	1	3	14	14.75	Thomas Creek-Chenango River
SWCD-3	Erosion	42.077	-76.052	Very Frequent		Juneberry Road Bridge over Choconut C	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-30	Erosion	42.161	-75.843	Frequent	2011	Hillside Tank	1	1	3	1	1	3	10	10.75	Thomas Creek-Chenango River
SWCD-31	DEBRIS JAM	42.181	-75.626	Somewhat frequ	2006	4-5 homes along main street	5	1	1	3	3	3	16	16.75	Belden Brook-Susquehanna River
SWCD-32	EROSION	42.203	-75.672	Somewhat frequ		2 houses on north bank, 1 is 400' DS	3	1	1	1	5	3	14	14.55	Belden Brook-Susquehanna River
SWCD-33	Flash Flood	42.057	-75.429	More Frequent		Tracy Creek Rd Culvert	1	5	1	1	3	3	14	15.35	Tracy Creek-Susquehanna River
SWCD-34	Flash Flood	42.049	-75.487	More Frequent		Tracy Creek Rd - Tracy Creek	1	5	1	1	5	3	16	17.35	Tracy Creek-Susquehanna River
SWCD-35	Erosion	42.124	-75.58	Somewhat Frequ	8/9/2011	Tri-Cities Airport	1	1	3	5	5	1	16	17.05	Tracy Creek-Susquehanna River
SWCD-36	Flash Flood	42.181	-75.625	More Frequent	2006, 2011	sediment has raised channe	3	3	1	1	3	5	16	17.05	Tracy Creek-Susquehanna River
SWCD-37	Erosion	42.191	-75.65	Frequent	11-Sep	Private bank/shed/septic	1	1	1	1	1	3	8	8.55	Tracy Creek-Susquehanna River
SWCD-38	Stormwater	42.242	-75.675	Frequent	11-Sep	Mason Rd Bridge	5	3	3	5	5	3	24	25.55	Tracy Creek-Susquehanna River
SWCD-39	Flash Flood	42	-75.731	Frequent	11-Sep	Baker Hill Rd Bridge	5	5	3	5	5	3	26	27.95	Tracy Creek-Susquehanna River
SWCD-4	Erosion	42.072	-76.046	More Frequent		Sugar creek into Choconut Creek	3	1	3	3	1	3	14	14.95	Lower Chocohut Creek
SWCD-40	Flash Flood	42.071	-75.801	Frequent	11-Sep	Private bank/garage/septic	1	1	1	1	1	3	8	8.55	Tracy Creek-Susquehanna River
SWCD-41	Debris Jam	42.03	-75.807	Frequent	11-Sep	downstream Rockwell Br	5	5	3	5	5	3	26	27.95	Tracy Creek-Susquehanna River
SWCD-42	Erosion	42.024	-75.855	Frequent	11-Sep	Norris Av. both sides of crk	5	1	1	5	1	3	16	16.95	Tracy Creek-Susquehanna River
SWCD-43	Debris Jam	42.026	-75.859	Frequent	11-Sep	Owego Rd Bridge	5	5	5	5	5	3	28	30.15	Tracy Creek-Susquehanna River
SWCD-45	Debris Jam	42.402	-76.02	Very Frequent	2011,2012	Blatchy Road	3	1	1	1	3	5	14	14.65	Trowbridge Creek
SWCD-46	Erosion	42.357	-76.022	More Frequent		Glen Denning Road,	1	5	1	1	3	3	14	15.35	Wylie Brook
SWCD-5	Flash Flood	42.067	-76.041	More Frequent		Powderhouse Rd - Sugar Creek	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-6	Flash Flood	42.068	-76.047	More Frequent		Powderhouse Rd Bridge over Sugar Cre	1	5	1	1	5	3	16	17.35	Lower Chocohut Creek
SWCD-7	Flash Flood	42.066	-76.049	Frequent	4/2006,11/	Improvements Made	5	1	1	1	5	5	18	18.65	Lower Chocohut Creek
SWCD-8	Erosion	42.049	-76.032	Somewhat Frequ		Floods house	1	1	1	1	3	1	8	8.45	Lower Chocohut Creek
SWCD-9	Erosion	42.05	-76.033	Frequent	2006, 2011	one home floods	5	1	1	1	1	1	10	10.45	Lower Chocohut Creek

HazardNum	Hazard_Typ	Lat	Long	Frequency	Dates	Notes	Neighb	Transp	Infrastr	Econom	Duratio	Increas	Total	Ranked_Scc	HUC12Name
Union-1	Stormwater	42.128	-76.034	Somewhat Frequ	40764	River Terrace Pumping Stati	5	1	5	5	5	3	24	25.35	Patterson Creek-Susquehanna River
Union-10	Erosion	42.157	-76.012	Somewhat Frequ	8/9/2011	Loder Ave Pumping Station	5	1	5	5	5	5	26	27.45	Patterson Creek-Susquehanna River
Union-2	Stormwater	42.147	-76.035	Somewhat Frequ	8/9/2011	Ranney Well	5	1	5	5	5	5	26	27.45	Patterson Creek-Susquehanna River
Union-3	Stormwater	42.092	-76.096	Frequent		Sheedy Road culvert	5	5	3	5	5	3	26	27.95	Lower Chocohut Creek
Union-4	Stormwater	42.127	-76.04	Somewhat Frequ	8/9/2011	V.O.E. / Town of Vestal Wat	5	1	5	5	5	5	26	27.45	Patterson Creek-Susquehanna River
Union-5	Flash Flood	42.128	-76.045	Frequent	9/7/11, 6/2	JC Water Dept - 44 Camden	5	1	5	5	5	3	24	25.35	Patterson Creek-Susquehanna River
Union-6	Flash Flood	42.13	-76.028	More Frequent	9/7/11,4/26	Ivy Place - Aetna to north de	3	1	1	1	1	1	8	8.45	Patterson Creek-Susquehanna River
Union-7	Erosion	42.152	-76.082	More Frequent	37053	Perry Road	5	5	1	1	3	3	18	19.35	Castle Creek
Union-8	Erosion	42.153	-76.082	Very Frequent	37053	Fox Road	5	3	1	1	1	5	16	17.05	Castle Creek
Union-9	Erosion	42.146	-76.016	Frequent	9/7/11,6/26	Harry L Drive / Valley Plaza	5	3	1	5	3	3	20	21.35	Patterson Creek-Susquehanna River
Vestal-1	Erosion	42.02	-76.082	Somewhat Frequ	2006/2011	Watson Ave. Reconstruction	5	5	5	5	5	3	28	30.15	Thomas Creek-Chenango River
Vestal-10	Erosion	42.031	-76.016	Somewhat Frequ	4/2006,11/	sediment debris around chu	5	1	3	3	3	3	18	18.95	Lower Chocohut Creek
Vestal-11	Flash Flood	42.031	-76.018	Somewhat Frequ	2011	at gas line	1	3	3	1	1	3	12	13.15	Lower Chocohut Creek
Vestal-12	Erosion	42.041	-76.027	Somewhat Frequ			3	5	3	3	5	5	24	25.85	Lower Chocohut Creek
Vestal-13	Erosion	42.046	-76.029	Somewhat Frequ		Improvements Made	3	5	1	3	3	3	18	19.55	Lower Chocohut Creek
Vestal-14	Erosion	42.049	-76.031	More Frequent	2004, 4/20		5	1	1	3	5	5	20	20.85	Lower Chocohut Creek
Vestal-15	Erosion	42.06	-76.038	Somewhat Frequ	2011		3	1	1	1	1	1	8	8.45	Lower Chocohut Creek
Vestal-16	Erosion	42.063	-76.04	More Frequent			3	1	1	1	5	5	16	16.65	Lower Chocohut Creek
Vestal-17	Erosion	42.064	-76.04	More Frequent			3	1	1	1	5	5	16	16.65	Lower Chocohut Creek
Vestal-17	Flash Flood	42.072	-76.042	Somewhat Frequ			3	1	1	1	3	3	12	12.55	Lower Chocohut Creek
Vestal-18	Erosion	42.07	-76.042	Somewhat Frequ		Sugar Creek outlet	1	1	1	1	1	3	8	8.55	Lower Chocohut Creek
Vestal-19	Erosion	42.072	-76.046	Frequent		Coleman St Area	5	1	1	1	1	3	12	12.55	Lower Chocohut Creek
Vestal-2	Erosion	42.021	-76.019	Somewhat Frequent	2004, 2005		5	1	1	3	3	3	16	16.75	Lower Oquaga Creek
Vestal-20	Erosion	42.071	-76.046	Somewhat Frequ		Sewer main	5	1	5	3	3	3	20	21.15	Lower Chocohut Creek
Vestal-21	Erosion	42.071	-76.047	Somewhat Frequ		Private home	1	1	1	1	1	3	8	8.55	Lower Chocohut Creek
Vestal-22	Flash Flood	42.083	-76.064	Somewhat Frequ		Private homes & Hwy dept	5	1	3	5	1	3	18	19.15	Lower Chocohut Creek
Vestal-23	Erosion	42.076	-75.957	Somewhat Frequ		Corliss Ave / Crocker Ave	3	3	1	1	3	1	12	12.85	Little Choconut Creek-Susquehanna River
Vestal-24	Erosion	42.083	-75.959	Somewhat Frequ	11/2006, 2	bridge is at risk of failing	1	3	1	3	5	3	16	17.15	Little Choconut Creek-Susquehanna River
Vestal-25	Erosion	42.083	-75.959	Frequent	2011	Flow went through emergen	1	3	1	1	1	1	8	8.85	Little Choconut Creek-Susquehanna River
Vestal-26	Erosion	42.085	-76.006	Extremely Frequ		Railroad underpass Watson	5	5	1	3	1	3	18	19.55	Patterson Creek-Susquehanna River
Vestal-27	Flash Flood	42.008	-75.991	Very Frequent		Conklin Hill Road, pipes, 1/2	1	1	1	1	5	3	12	12.55	Lower Tioughnioga River
Vestal-28	Erosion	42.065	-76.049	Somewhat Frequ		Sewer	5	1	5	5	3	3	22	23.35	Lower Chocohut Creek
Vestal-29	Erosion	42.051	-76.029	Frequent		Meeker Bridge	5	5	5	5	5	3	28	30.15	Lower Chocohut Creek
Vestal-3	Erosion	42.028	-76.08	Somewhat Frequ		Phelps Creek @ Port Dickin	5	1	1	5	3	3	18	18.95	Thomas Creek-Chenango River
Vestal-30	Erosion	42.054	-76.024	Frequent		Main St & Lincoln	5	1	1	5	1	3	16	16.95	Lower Chocohut Creek
Vestal-31	Flash Flood	42.05	-76.033	Frequent		Main St & Lincoln	5	1	1	5	1	3	16	16.95	Lower Chocohut Creek
Vestal-32	Riverine	42.049	-76.034	Frequent		Main St Bridge	5	5	5	5	5	3	28	30.15	Lower Chocohut Creek
Vestal-33	Riverine	42.049	-76.034	Frequent		Weis Market	1	1	1	1	1	3	8	8.55	Lower Chocohut Creek
Vestal-4	Erosion	42.033	-76.082	Somewhat Frequ		Brandywine Highway coorid	5	1	1	5	3	3	18	18.95	Thomas Creek-Chenango River
Vestal-5	Erosion	42.041	-76.084	Somewhat Frequ		Port Dickinson Park Under I	5	1	1	5	3	3	18	18.95	Thomas Creek-Chenango River
Vestal-6	Erosion	42.052	-76.09	More Frequent		bridge is undersized, bedloa	1	5	5	3	3	3	20	21.95	Thomas Creek-Chenango River
Vestal-7	Erosion	42.062	-76.102	More Frequent	4/2006, 11 /		1	1	1	5	5	3	16	16.95	Thomas Creek-Chenango River
Vestal-8	Erosion	42.067	-76.102	Very Frequent		Tracy Creek Rd @ Ross Hill	1	5	1	1	3	3	14	15.35	Tracy Creek-Susquehanna River
Vestal-9	Flash Flood	42.003	-76.006	Very Frequent		Conklin Hill Rd. Pipes along	1	1	1	1	5	3	12	12.55	Lower Tioughnioga River
Windsor-1	High Groundwa	42.084	-75.64	Frequent		Tharp St Area	5	1	1	1	1	3	12	12.55	Middle Chocohut Creek



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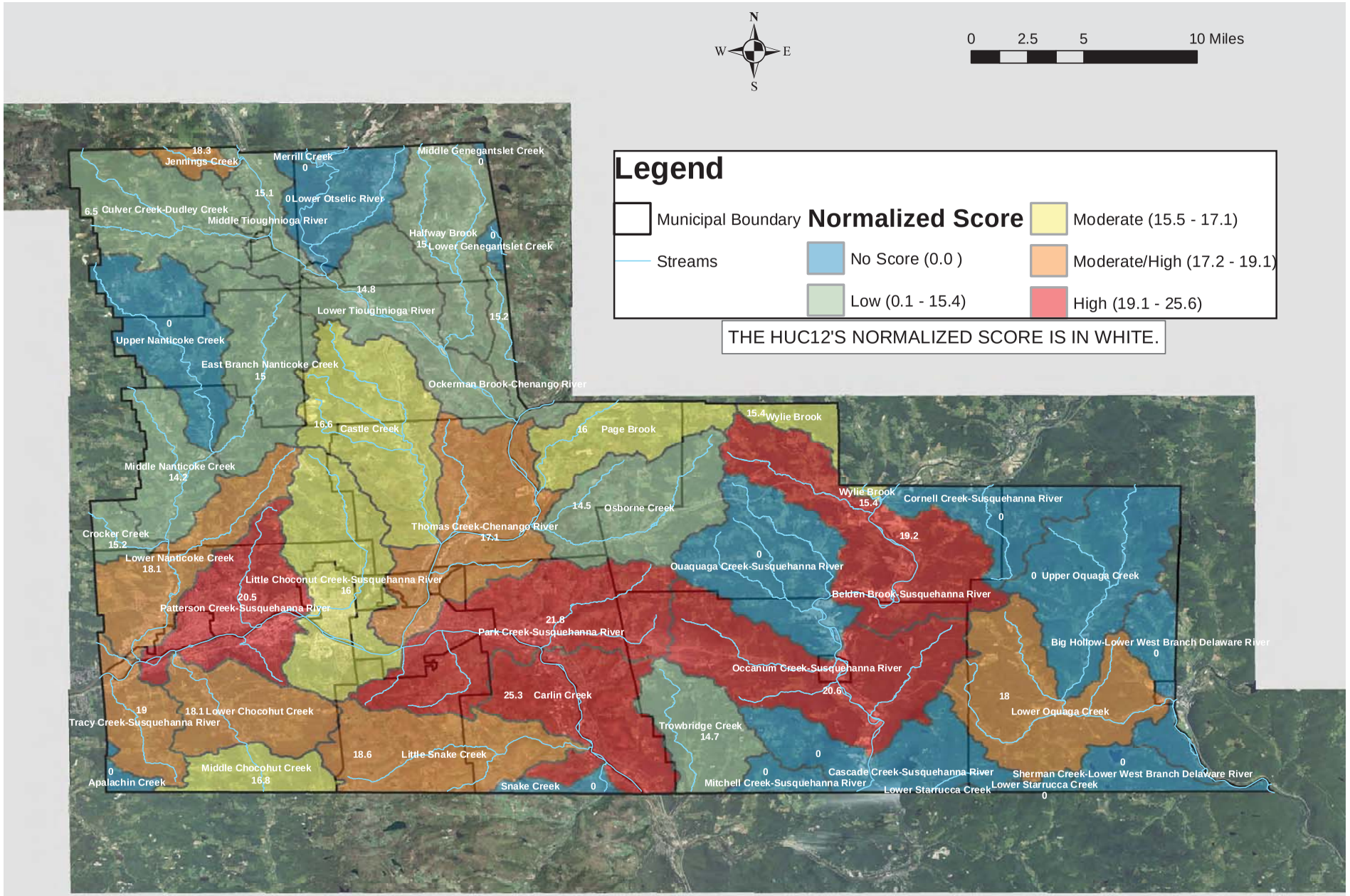
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S RAW SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED22.2013
FIGURE NUMBER
A-7a



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BACKGROUND PHOTO:

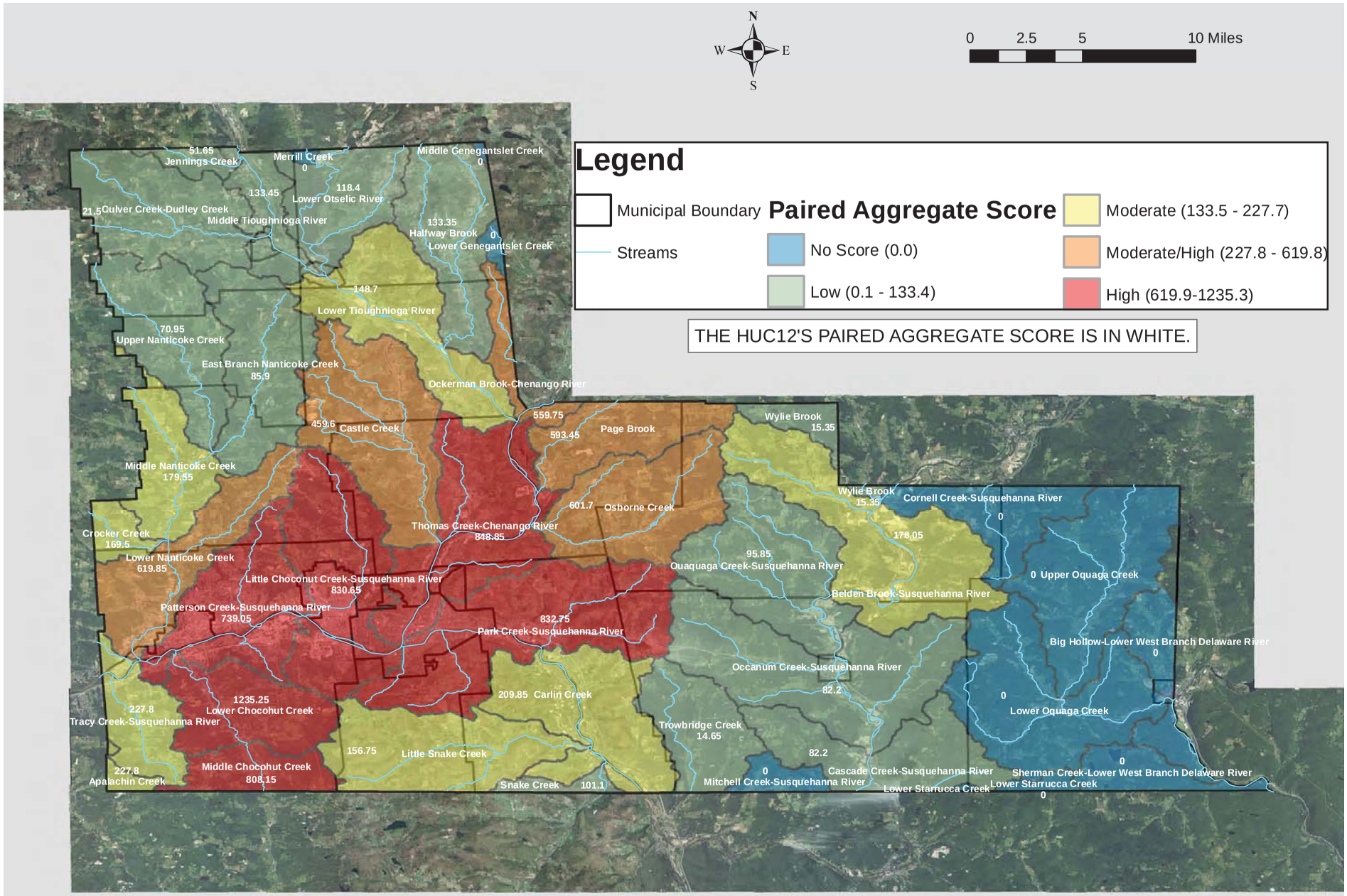
Woidt Engineering

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S NORMALIZED SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYE02.2013
FIGURE NUMBER
A-7b



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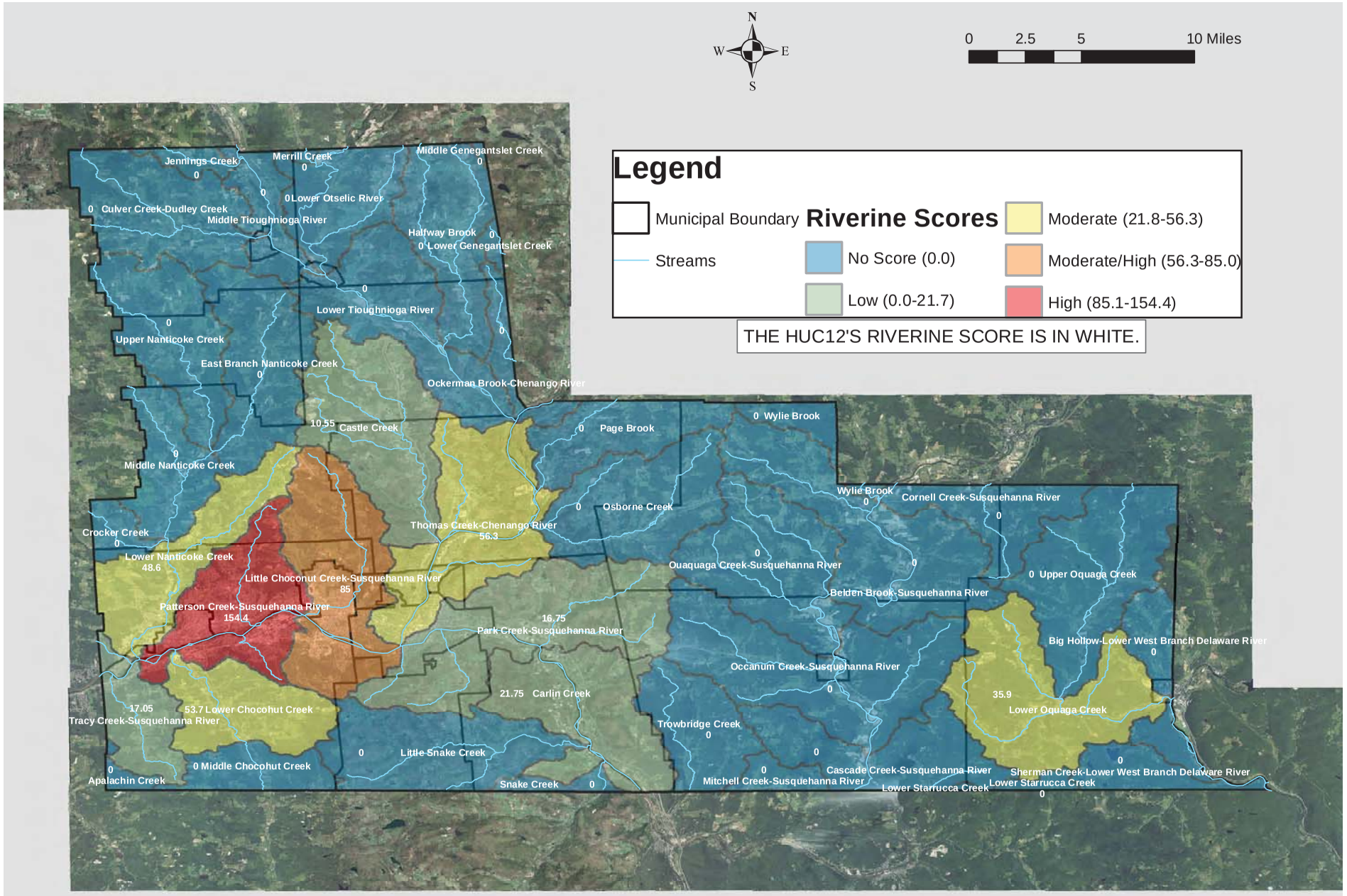
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S PAIRED AGGREGATE SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED22.2013
FIGURE NUMBER
A-7c



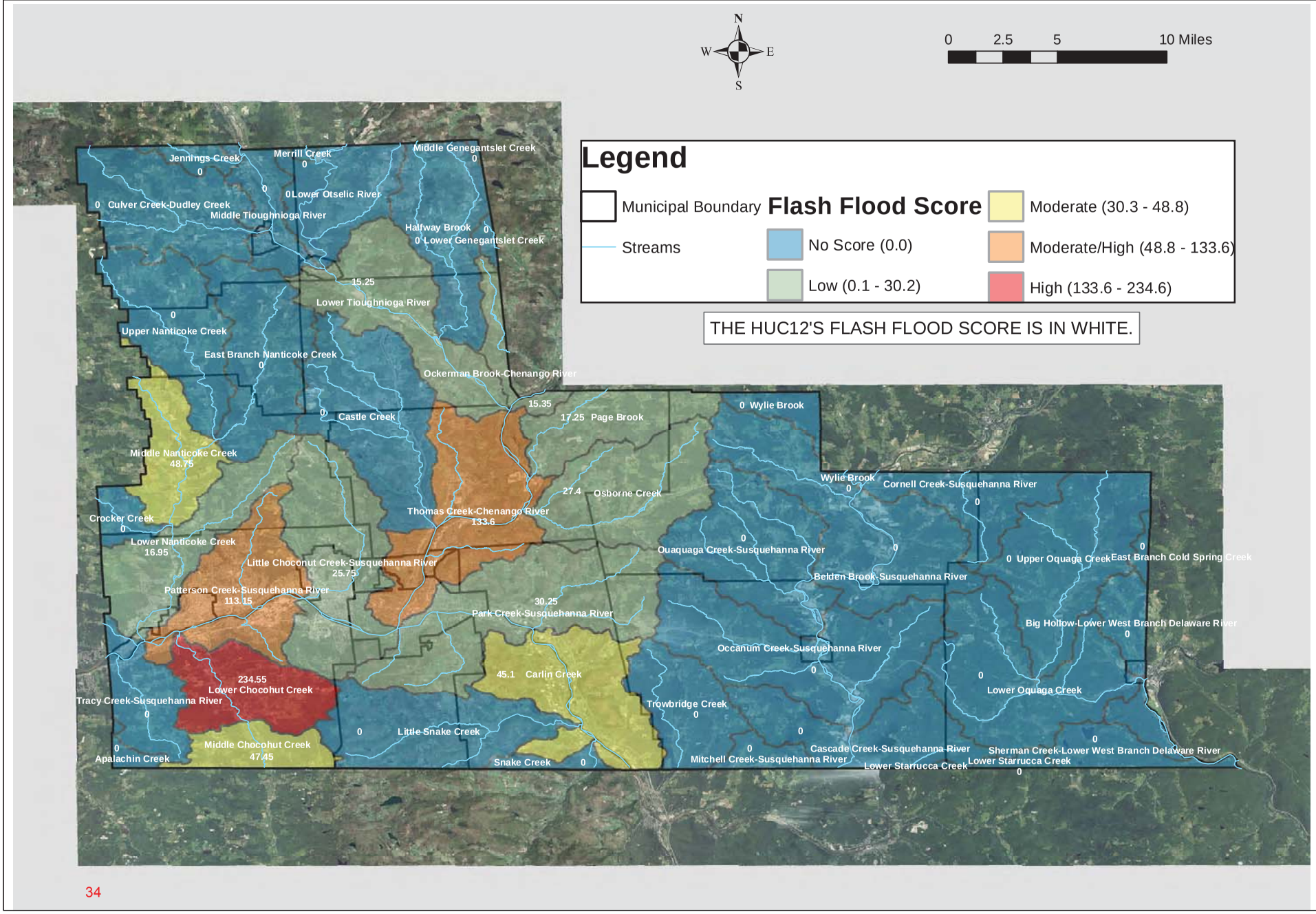
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S RIVERINE SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED22.2013
FIGURE NUMBER
A-7d



34

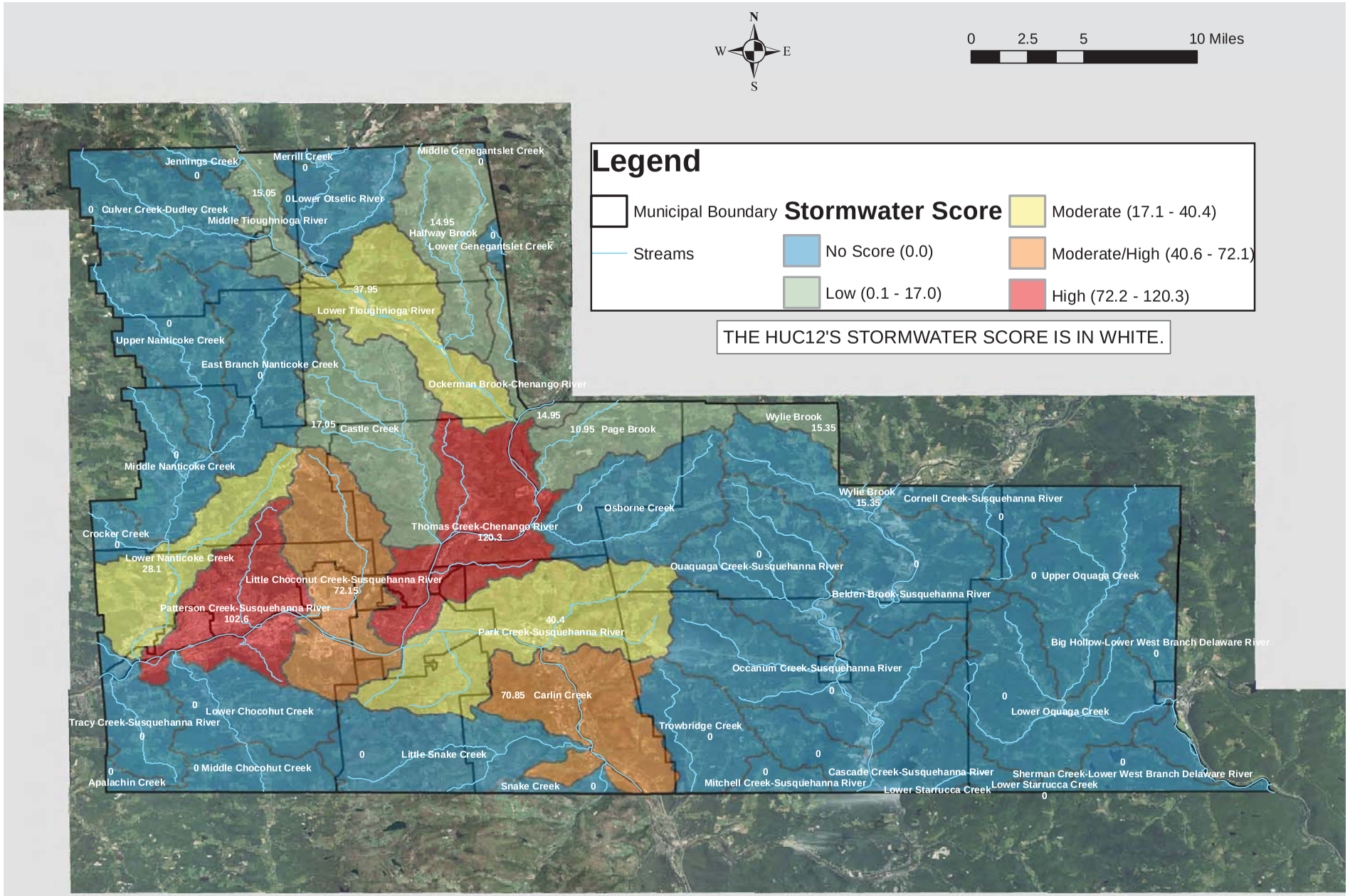
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12) USING A HUC12'S FLASH FLOOD SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED2.2013
FIGURE NUMBER
A-7e



35

BACKGROUND PHOTO:

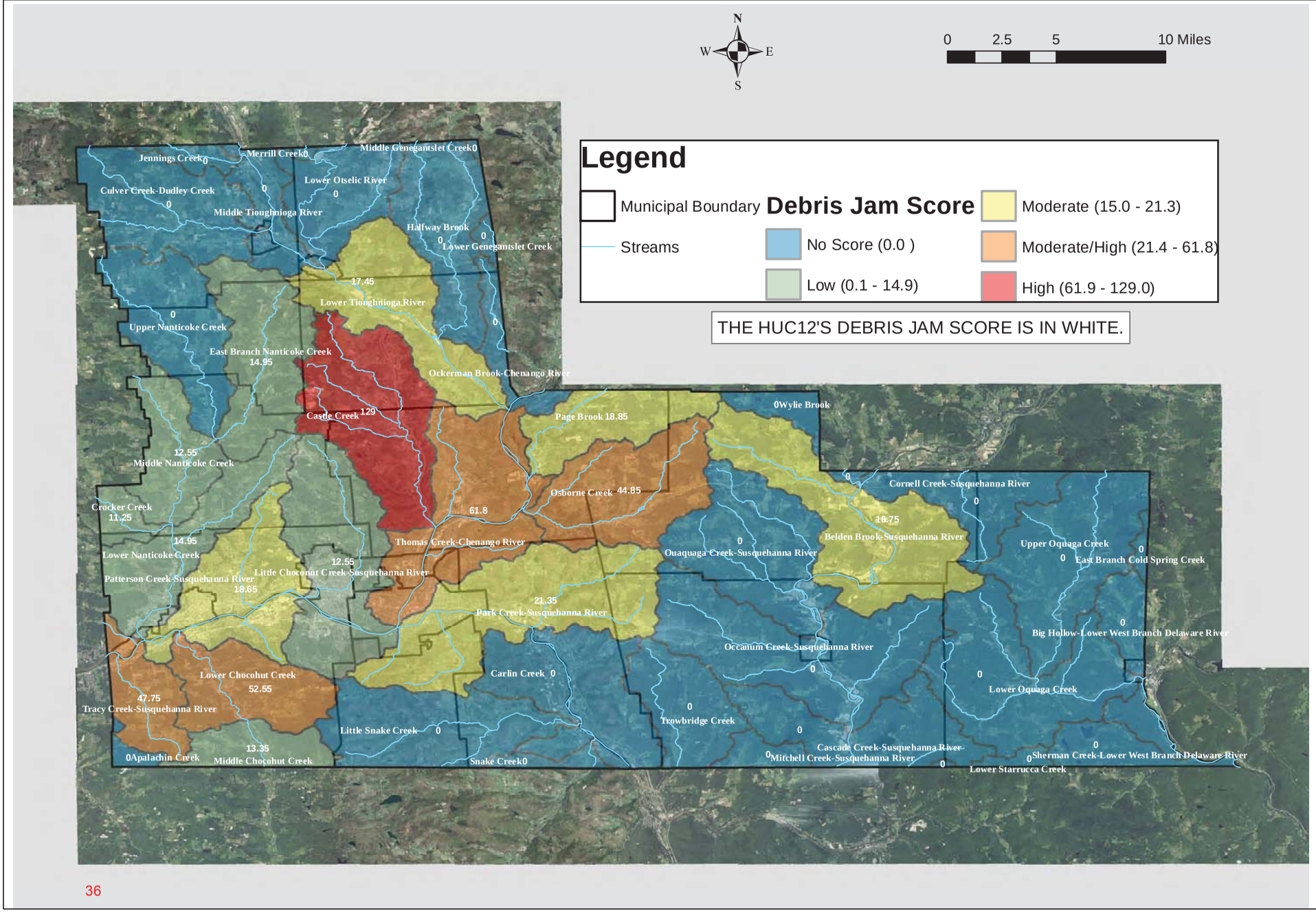
DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYE02.2013
FIGURE NUMBER
A-7f

PRIORITIZED WATERSHEDS (HUC12) USING A HUC12'S STORMWATER SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

Woidt Engineering



PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S DEBRIS JAM SCORE

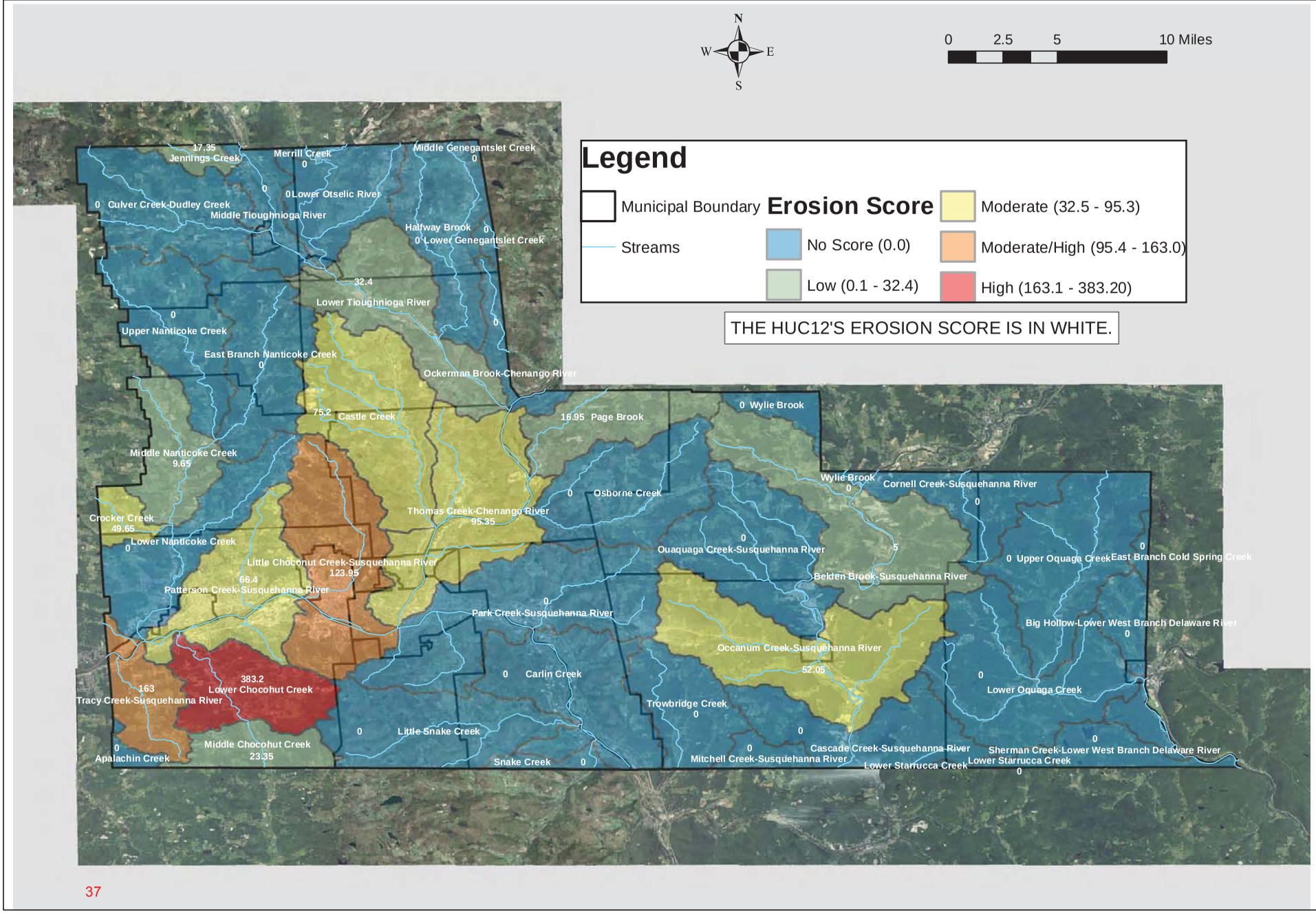
BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

BACKGROUND PHOTO:

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED2.2013
FIGURE NUMBER
A-7g

Woidt Engineering



37

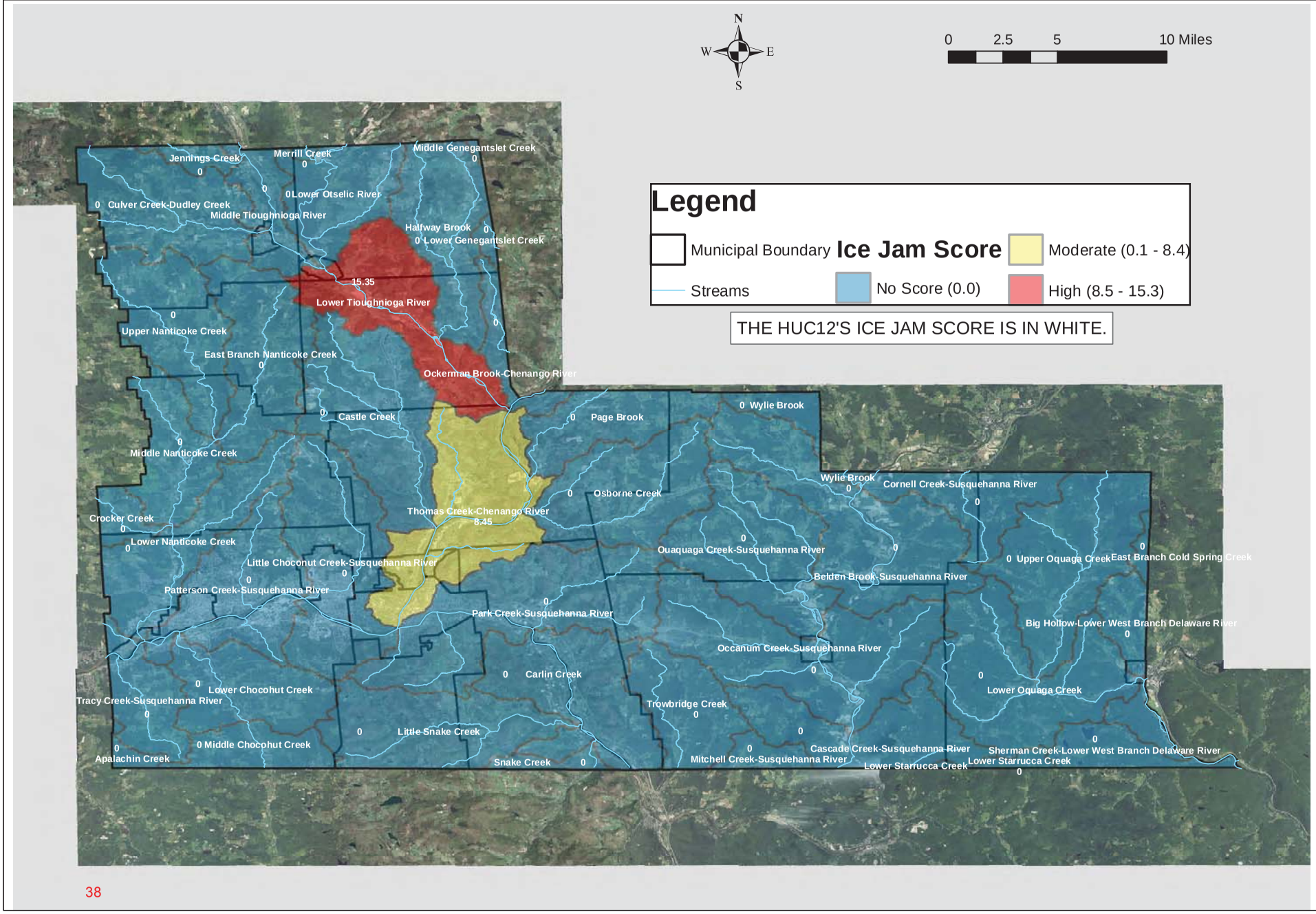
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12) USING A HUC12'S EROSION SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED22.2013
FIGURE NUMBER
A-7h



38

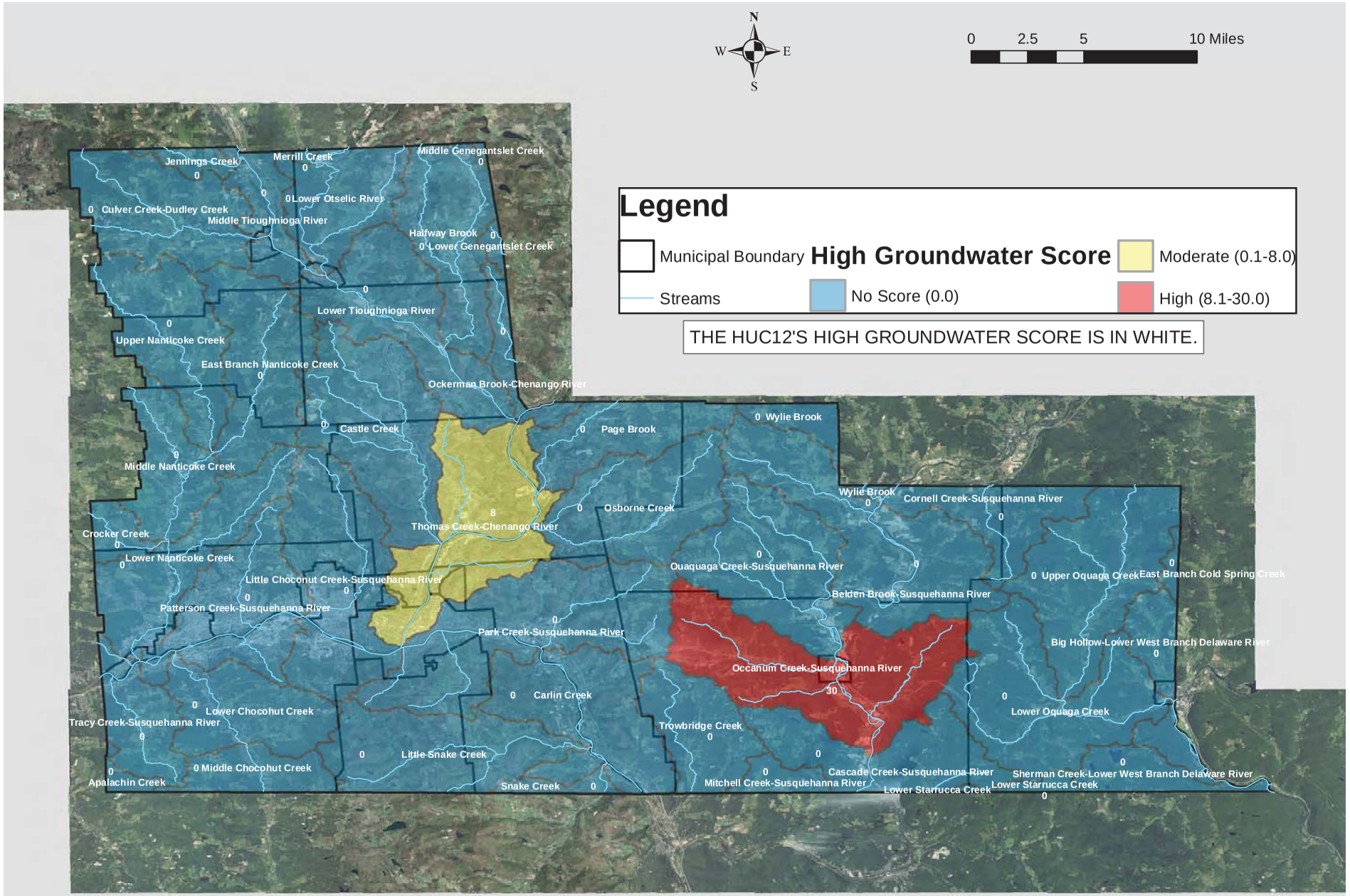
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S ICE JAM SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYE02.2013
FIGURE NUMBER
A-7i



39

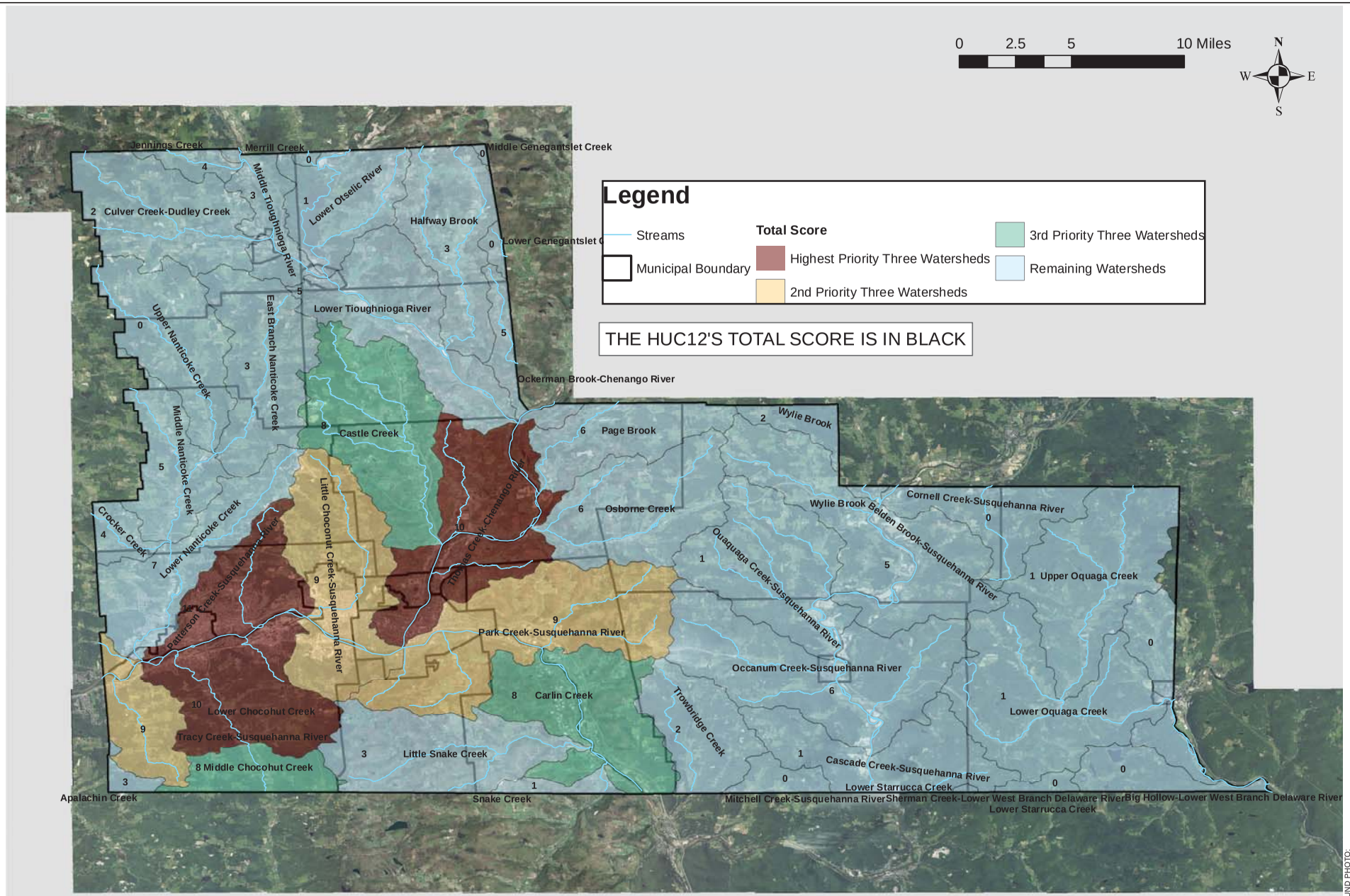
BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S HIGH GROUNDWATER SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYE02.2013
FIGURE NUMBER
A-7j



BACKGROUND PHOTO:

PRIORITIZED WATERSHEDS (HUC12)
USING A HUC12'S RAW SCORE

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 10/20/14
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO: NYED2.2013
FIGURE NUMBER
A-7k

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis-Listed with Prioritized Score					
Table #: A-1					
Date: 1/2/15					
By: GDF					
Rank	HUC12 Name	Prioritization Score From Raw Score	Prioritization Score From Normalized Score	Proritized Score from Paired Aggregate Score	Subtotal
1	Patterson Creek-Susquehanna River	4	3	4	11
2	Lower Chocohut Creek	4	2	4	10
3	Thomas Creek-Chenango River	4	2	4	10
4	Little Choconut Creek-Susquehanna River	3	2	4	9
5	Park Creek-Susquehanna River	2	3	4	9
6	Tracy Creek-Susquehanna River	3	3	3	9
7	Carlin Creek	2	4	2	8
8	Castle Creek	3	2	3	8
9	Middle Chocohut Creek	2	2	4	8
10	Lower Nanticoke Creek	2	2	3	7
11	Occanum Creek-Susquehanna River	2	3	1	6
12	Osborne Creek	2	1	3	6
13	Page Brook	2	1	3	6
14	Belden Brook-Susquehanna River	2	1	2	5
15	Lower Tioughnioga River	2	1	2	5
16	Middle Nanticoke Creek	2	1	2	5
17	Ockerman Brook-Chenango River	1	1	3	5
18	Crocker Creek	1	1	2	4
19	Jennings Creek	1	2	1	4
20	Apalachin Creek	0	0	3	3
21	East Branch Nanticoke Creek	1	1	1	3
22	Halfway Brook	1	1	1	3
23	Little Snake Creek	1	0	2	3
24	Middle Tioughnioga River	1	1	1	3
25	Culver Creek-Dudley Creek	1	0	1	2
26	Trowbridge Creek	1	0	1	2
27	Wylie Brook	1	0	1	2
28	Cascade Creek-Susquehanna River	0	0	1	1
29	Lower Oquaga Creek	1	0	0	1
30	Lower Otselic River	0	0	1	1
31	Ouaquaga Creek-Susquehanna River	0	0	1	1
32	Snake Creek	0	0	1	1
33	Upper Oquaga Creek	0	0	1	1
34	Big Hollow-Lower West Branch Delaware River	0	0	0	0
35	Cornell Creek-Susquehanna River	0	0	0	0
36	Lower Genegantslet Creek	0	0	0	0
37	Lower Starrucca Creek	0	0	0	0
38	Merrill Creek	0	0	0	0
39	Middle Genegantslet Creek	0	0	0	0
40	Mitchell Creek-Susquehanna River	0	0	0	0
41	Sherman Creek-Lower West Branch Delaware River	0	0	0	0
42	Upper Nanticoke Creek	0	0	0	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis-Ranked by Raw Score			
Table #: A-2			
Date: 1/2/15			
By: GDF			
Rank	HUC12 Name	Raw Score	Prioritization Score
1	Lower Chocohut Creek	724.0	4
2	Patterson Creek-Susquehanna River	511.3	4
3	Thomas Creek-Chenango River	529.5	4
4	Castle Creek	231.8	3
5	Little Choconut Creek-Susquehanna River	319.4	3
6	Tracy Creek-Susquehanna River	227.8	3
7	Belden Brook-Susquehanna River	95.9	2
8	Carlin Creek	101.1	2
9	Lower Nanticoke Creek	108.6	2
10	Lower Tioughnioga River	118.4	2
11	Middle Chocohut Creek	84.2	2
12	Middle Nanticoke Creek	71.0	2
13	Occanum Creek-Susquehanna River	82.2	2
14	Osborne Creek	72.3	2
15	Page Brook	64.0	2
16	Park Creek-Susquehanna River	108.8	2
17	Crocker Creek	60.9	1
18	Culver Creek-Dudley Creek	6.5	1
19	East Branch Nanticoke Creek	15.0	1
20	Halfway Brook	15.0	1
21	Jennings Creek	36.6	1
22	Little Snake Creek	55.7	1
23	Lower Oquaga Creek	35.9	1
24	Middle Tioughnioga River	15.1	1
25	Ockerman Brook-Chenango River	30.3	1
26	Trowbridge Creek	14.7	1
27	Wylie Brook	15.4	1
28	Apalachin Creek	0.0	0
29	Big Hollow-Lower West Branch Delaware River	0.0	0
30	Cascade Creek-Susquehanna River	0.0	0
31	Cornell Creek-Susquehanna River	0.0	0
32	Lower Genegantslet Creek	0.0	0
33	Lower Otselic River	0.0	0
34	Lower Starrucca Creek	0.0	0
35	Merrill Creek	0.0	0
36	Middle Genegantslet Creek	0.0	0
37	Mitchell Creek-Susquehanna River	0.0	0
38	Ouaquaga Creek-Susquehanna River	0.0	0
39	Sherman Creek-Lower West Branch Delaware River	0.0	0
40	Snake Creek	0.0	0
41	Upper Oquaga Creek	0.0	0
42	Upper Nanticoke Creek	0.0	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis-Ranked by Normalized Score			
Table #: A-3			
Date: 1/2/15			
By: GDF			
Rank	HUC12 Name	Normalized Score	Prioritization Score
1	Belden Brook-Susquehanna River	19.2	3
2	Jennings Creek	18.3	3
3	Little Snake Creek	18.6	3
4	Occanum Creek-Susquehanna River	20.6	3
5	Park Creek-Susquehanna River	21.8	3
6	Patterson Creek-Susquehanna River	20.5	3
7	Tracy Creek-Susquehanna River	19.0	3
8	Castle Creek	16.6	2
9	Lower Chocohut Creek	18.1	2
10	Lower Nanticoke Creek	18.1	2
11	Lower Oquaga Creek	18.0	2
12	Middle Chocohut Creek	16.8	2
13	Thomas Creek-Chenango River	17.1	2
14	Crocker Creek	15.2	1
15	Culver Creek-Dudley Creek	6.5	1
16	East Branch Nanticoke Creek	15.0	1
17	Halfway Brook	15.0	1
18	Little Choconut Creek-Susquehanna River	16.0	1
19	Lower Tioughnioga River	14.8	1
20	Middle Nanticoke Creek	14.2	1
21	Middle Tioughnioga River	15.1	1
22	Ockerman Brook-Chenango River	15.2	1
23	Osborne Creek	14.5	1
24	Page Brook	16.0	1
25	Trowbridge Creek	14.7	1
26	Wylie Brook	15.4	1
27	Apalachin Creek	0.0	0
28	Big Hollow-Lower West Branch Delaware River	0.0	0
29	Carlin Creek	25.3	0
30	Cascade Creek-Susquehanna River	0.0	0
31	Cornell Creek-Susquehanna River	0.0	0
32	Lower Genegantslet Creek	0.0	0
33	Lower Otselic River	0.0	0
34	Lower Starrucca Creek	0.0	0
35	Merrill Creek	0.0	0
36	Middle Genegantslet Creek	0.0	0
37	Mitchell Creek-Susquehanna River	0.0	0
38	Ouaquaga Creek-Susquehanna River	0.0	0
39	Sherman Creek-Lower West Branch Delaware River	0.0	0
40	Snake Creek	0.0	0
41	Upper Oquaga Creek	0.0	0
42	Upper Nanticoke Creek	0.0	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis-Ranked by Paired Aggregate Score			
Table #: A-4			
Date: 1/2/15			
By: GDF			
Rank	HUC12 Name	Paired Aggregate Score	Prioritization Score
1	Little Choconut Creek-Susquehanna River	830.65	4
2	Lower Chocohut Creek	1235.25	4
3	Middle Chocohut Creek	808.15	4
4	Park Creek-Susquehanna River	832.75	4
5	Patterson Creek-Susquehanna River	739.05	4
6	Thomas Creek-Chenango River	848.85	4
7	Apalachin Creek	227.8	3
8	Castle Creek	459.6	3
9	Lower Nanticoke Creek	619.85	3
10	Ockerman Brook-Chenango River	559.75	3
11	Osborne Creek	601.7	3
12	Page Brook	593.45	3
13	Tracy Creek-Susquehanna River	227.8	3
14	Belden Brook-Susquehanna River	178.05	2
15	Carlin Creek	209.85	2
16	Crocker Creek	169.5	2
17	Little Snake Creek	156.75	2
18	Lower Tioughnioga River	148.7	2
19	Middle Nanticoke Creek	179.55	2
20	Cascade Creek-Susquehanna River	82.2	1
21	Culver Creek-Dudley Creek	21.5	1
22	East Branch Nanticoke Creek	85.9	1
23	Halfway Brook	133.35	1
24	Jennings Creek	51.65	1
25	Lower Otselic River	118.4	1
26	Middle Tioughnioga River	133.45	1
27	Occanum Creek-Susquehanna River	82.2	1
28	Ouaquaga Creek-Susquehanna River	95.85	1
29	Snake Creek	101.1	1
30	Trowbridge Creek	14.65	1
31	Upper Nanticoke Creek	70.95	1
32	Wylie Brook	15.35	1
33	Big Hollow-Lower West Branch Delaware River	0	0
34	Cornell Creek-Susquehanna River	0	0
35	Lower Genegantslet Creek	0	0
36	Lower Oquaga Creek	0	0
37	Lower Starrucca Creek	0	0
38	Merrill Creek	0	0
39	Middle Genegantslet Creek	0	0
40	Mitchell Creek-Susquehanna River	0	0
41	Sherman Creek-Lower West Branch Delaware River	0	0
42	Upper Oquaga Creek	0	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by Riverine Raw Score		
Date: 1/2/15		
By: GDF		
Rank	Name	Riverine Score
1	Patterson Creek-Susquehanna River	154.4
2	Little Choconut Creek-Susquehanna River	85
3	Thomas Creek-Chenango River	56.3
4	Lower Chocohut Creek	53.7
5	Lower Nanticoke Creek	48.6
6	Lower Oquaga Creek	35.9
7	Carlin Creek	21.75
8	Tracy Creek-Susquehanna River	17.05
9	Park Creek-Susquehanna River	16.75
10	Castle Creek	10.55
11	Apalachin Creek	0
12	Belden Brook-Susquehanna River	0
13	Big Hollow-Lower West Branch Delaware River	0
14	Cascade Creek-Susquehanna River	0
15	Cornell Creek-Susquehanna River	0
16	Crocker Creek	0
17	Culver Creek-Dudley Creek	0
18	East Branch Nanticoke Creek	0
19	Halfway Brook	0
20	Jennings Creek	0
21	Little Snake Creek	0
22	Lower Genegantslet Creek	0
23	Lower Otselic River	0
24	Lower Starrucca Creek	0
25	Lower Tioughnioga River	0
26	Merrill Creek	0
27	Middle Chocohut Creek	0
28	Middle Genegantslet Creek	0
29	Middle Nanticoke Creek	0
30	Middle Tioughnioga River	0
31	Mitchell Creek-Susquehanna River	0
32	Occanum Creek-Susquehanna River	0
33	Ockerman Brook-Chenango River	0
34	Osborne Creek	0
35	Ouaquaga Creek-Susquehanna River	0
36	Page Brook	0
37	Sherman Creek-Lower West Branch Delaware River	0
38	Snake Creek	0
39	Trowbridge Creek	0
40	Upper Oquaga Creek	0
41	Upper Nanticoke Creek	0
42	Wylie Brook	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by Flash Flood Score		
Date: 1/2/15		
By: GDF		
Rank	Name	Flash Flood Score
1	Lower Chocohut Creek	147.8
2	Thomas Creek-Chenango River	91.7
3	Middle Nanticoke Creek	48.75
4	Patterson Creek-Susquehanna River	48.65
5	Middle Chocohut Creek	47.45
6	Carlin Creek	30.25
7	Park Creek-Susquehanna River	30.25
8	Osborne Creek	27.4
9	Little Choconut Creek-Susquehanna River	25.75
10	Belden Brook-Susquehanna River	25.65
11	Page Brook	17.25
12	Lower Nanticoke Creek	16.95
13	Ockerman Brook-Chenango River	15.35
14	Lower Tioughnioga River	15.25
15	Trowbridge Creek	14.65
16	Apalachin Creek	0
17	Big Hollow-Lower West Branch Delaware River	0
18	Cascade Creek-Susquehanna River	0
19	Castle Creek	0
20	Cornell Creek-Susquehanna River	0
21	Crocker Creek	0
22	Culver Creek-Dudley Creek	0
23	East Branch Nanticoke Creek	0
24	Halfway Brook	0
25	Jennings Creek	0
26	Little Snake Creek	0
27	Lower Genegantslet Creek	0
28	Lower Oquaga Creek	0
29	Lower Otselic River	0
30	Lower Starrucca Creek	0
31	Merrill Creek	0
32	Middle Genegantslet Creek	0
33	Middle Tioughnioga River	0
34	Mitchell Creek-Susquehanna River	0
35	Occanum Creek-Susquehanna River	0
36	Ouaquaga Creek-Susquehanna River	0
37	Sherman Creek-Lower West Branch Delaware River	0
38	Snake Creek	0
39	Tracy Creek-Susquehanna River	0
40	Upper Oquaga Creek	0
41	Upper Nanticoke Creek	0
42	Wylie Brook	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by Stormwater Score		
Date: 1/2/15		
By: GDF		
Rank	Name	Stormwater Score
1	Thomas Creek-Chenango River	120.3
2	Patterson Creek-Susquehanna River	102.6
3	Little Choconut Creek-Susquehanna River	72.15
4	Carlin Creek	70.85
5	Park Creek-Susquehanna River	40.4
6	Lower Tioughnioga River	37.95
7	Lower Nanticoke Creek	28.1
8	Castle Creek	17.05
9	Wylie Brook	15.35
10	Middle Tioughnioga River	15.05
11	Halfway Brook	14.95
12	Ockerman Brook-Chenango River	14.95
13	Page Brook	10.95
14	Apalachin Creek	0
15	Belden Brook-Susquehanna River	0
16	Big Hollow-Lower West Branch Delaware River	0
17	Cascade Creek-Susquehanna River	0
18	Cornell Creek-Susquehanna River	0
19	Crocker Creek	0
20	Culver Creek-Dudley Creek	0
21	East Branch Nanticoke Creek	0
22	Jennings Creek	0
23	Little Snake Creek	0
24	Lower Chocohut Creek	0
25	Lower Genegantslet Creek	0
26	Lower Oquaga Creek	0
27	Lower Otselic River	0
28	Lower Starrucca Creek	0
29	Merrill Creek	0
30	Middle Chocohut Creek	0
31	Middle Genegantslet Creek	0
32	Middle Nanticoke Creek	0
33	Mitchell Creek-Susquehanna River	0
34	Occanum Creek-Susquehanna River	0
35	Osborne Creek	0
36	Ouaquaga Creek-Susquehanna River	0
37	Sherman Creek-Lower West Branch Delaware River	0
38	Snake Creek	0
39	Tracy Creek-Susquehanna River	0
40	Trowbridge Creek	0
41	Upper Oquaga Creek	0
42	Upper Nanticoke Creek	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by Erosion Score		
Date: 1/2/15		
By: GDF		
	Name	Erosion Score
1	Lower Chocohut Creek	383.2
2	Tracy Creek-Susquehanna River	163
3	Thomas Creek-Chenango River	95.35
4	Little Choconut Creek-Susquehanna River	94.45
5	Castle Creek	75.2
6	Belden Brook-Susquehanna River	53.45
7	Occanum Creek-Susquehanna River	52.05
8	Crocker Creek	49.65
9	Patterson Creek-Susquehanna River	49.45
10	Lower Tioughnioga River	32.4
11	Middle Chocohut Creek	23.35
12	Little Snake Creek	19.35
13	Jennings Creek	17.35
14	Page Brook	16.95
15	Middle Nanticoke Creek	9.65
16	Culver Creek-Dudley Creek	6.45
17	Apalachin Creek	0
18	Big Hollow-Lower West Branch Delaware River	0
19	Carlin Creek	0
20	Cascade Creek-Susquehanna River	0
21	Cornell Creek-Susquehanna River	0
22	East Branch Nanticoke Creek	0
23	Halfway Brook	0
24	Lower Genegantslet Creek	0
25	Lower Nanticoke Creek	0
26	Lower Oquaga Creek	0
27	Lower Otselic River	0
28	Lower Starrucca Creek	0
29	Merrill Creek	0
30	Middle Genegantslet Creek	0
31	Middle Tioughnioga River	0
32	Mitchell Creek-Susquehanna River	0
33	Ockerman Brook-Chenango River	0
34	Osborne Creek	0
35	Ouaquaga Creek-Susquehanna River	0
36	Park Creek-Susquehanna River	0
37	Sherman Creek-Lower West Branch Delaware River	0
38	Snake Creek	0
39	Trowbridge Creek	0
40	Upper Oquaga Creek	0
41	Upper Nanticoke Creek	0
42	Wylie Brook	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by Debris Jam Score		
Date: 1/2/15		
By: GDF		
	Name	Debris Jam Score
1	Castle Creek	129
2	Tracy Creek-Susquehanna River	47.75
3	Thomas Creek-Chenango River	45.05
4	Osborne Creek	44.85
5	Lower Chocohut Creek	37.6
6	Little Snake Creek	36.3
7	Park Creek-Susquehanna River	21.35
8	Jennings Creek	19.25
9	Page Brook	18.85
10	Patterson Creek-Susquehanna River	18.65
11	Lower Tioughnioga River	17.45
12	Belden Brook-Susquehanna River	16.75
13	East Branch Nanticoke Creek	14.95
14	Lower Nanticoke Creek	14.95
15	Middle Chocohut Creek	13.35
16	Middle Nanticoke Creek	12.55
17	Crocker Creek	11.25
18	Apalachin Creek	0
19	Big Hollow-Lower West Branch Delaware River	0
20	Carlin Creek	0
21	Cascade Creek-Susquehanna River	0
22	Cornell Creek-Susquehanna River	0
23	Culver Creek-Dudley Creek	0
24	Halfway Brook	0
25	Little Choconut Creek-Susquehanna River	0
26	Lower Genegantslet Creek	0
27	Lower Oquaga Creek	0
28	Lower Otselic River	0
29	Lower Starrucca Creek	0
30	Merrill Creek	0
31	Middle Genegantslet Creek	0
32	Middle Tioughnioga River	0
33	Mitchell Creek-Susquehanna River	0
34	Occanum Creek-Susquehanna River	0
35	Ockerman Brook-Chenango River	0
36	Ouaquaga Creek-Susquehanna River	0
37	Sherman Creek-Lower West Branch Delaware River	0
38	Snake Creek	0
39	Trowbridge Creek	0
40	Upper Oquaga Creek	0
41	Upper Nanticoke Creek	0
42	Wylie Brook	0

Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by Ice Jam Score		
Date: 1/2/15		
By: GDF		
	Name	Ice Jam Score
1	Lower Tioughnioga River	15.35
2	Thomas Creek-Chenango River	8.45
3	Apalachin Creek	0
4	Belden Brook-Susquehanna River	0
5	Big Hollow-Lower West Branch Delaware River	0
6	Carlin Creek	0
7	Cascade Creek-Susquehanna River	0
8	Castle Creek	0
9	Cornell Creek-Susquehanna River	0
10	Crocker Creek	0
11	Culver Creek-Dudley Creek	0
12	East Branch Nanticoke Creek	0
13	Halfway Brook	0
14	Jennings Creek	0
15	Little Choconut Creek-Susquehanna River	0
16	Little Snake Creek	0
17	Lower Chocohut Creek	0
18	Lower Genegantslet Creek	0
19	Lower Nanticoke Creek	0
20	Lower Oquaga Creek	0
21	Lower Otselic River	0
22	Lower Starrucca Creek	0
23	Merrill Creek	0
24	Middle Chocohut Creek	0
25	Middle Genegantslet Creek	0
26	Middle Nanticoke Creek	0
27	Middle Tioughnioga River	0
28	Mitchell Creek-Susquehanna River	0
29	Occanum Creek-Susquehanna River	0
30	Ockerman Brook-Chenango River	0
31	Osborne Creek	0
32	Ouaquaga Creek-Susquehanna River	0
33	Page Brook	0
34	Park Creek-Susquehanna River	0
35	Patterson Creek-Susquehanna River	0
36	Sherman Creek-Lower West Branch Delaware River	0
37	Snake Creek	0
38	Tracy Creek-Susquehanna River	0
39	Trowbridge Creek	0
40	Upper Oquaga Creek	0
41	Upper Nanticoke Creek	0
42	Wylie Brook	0

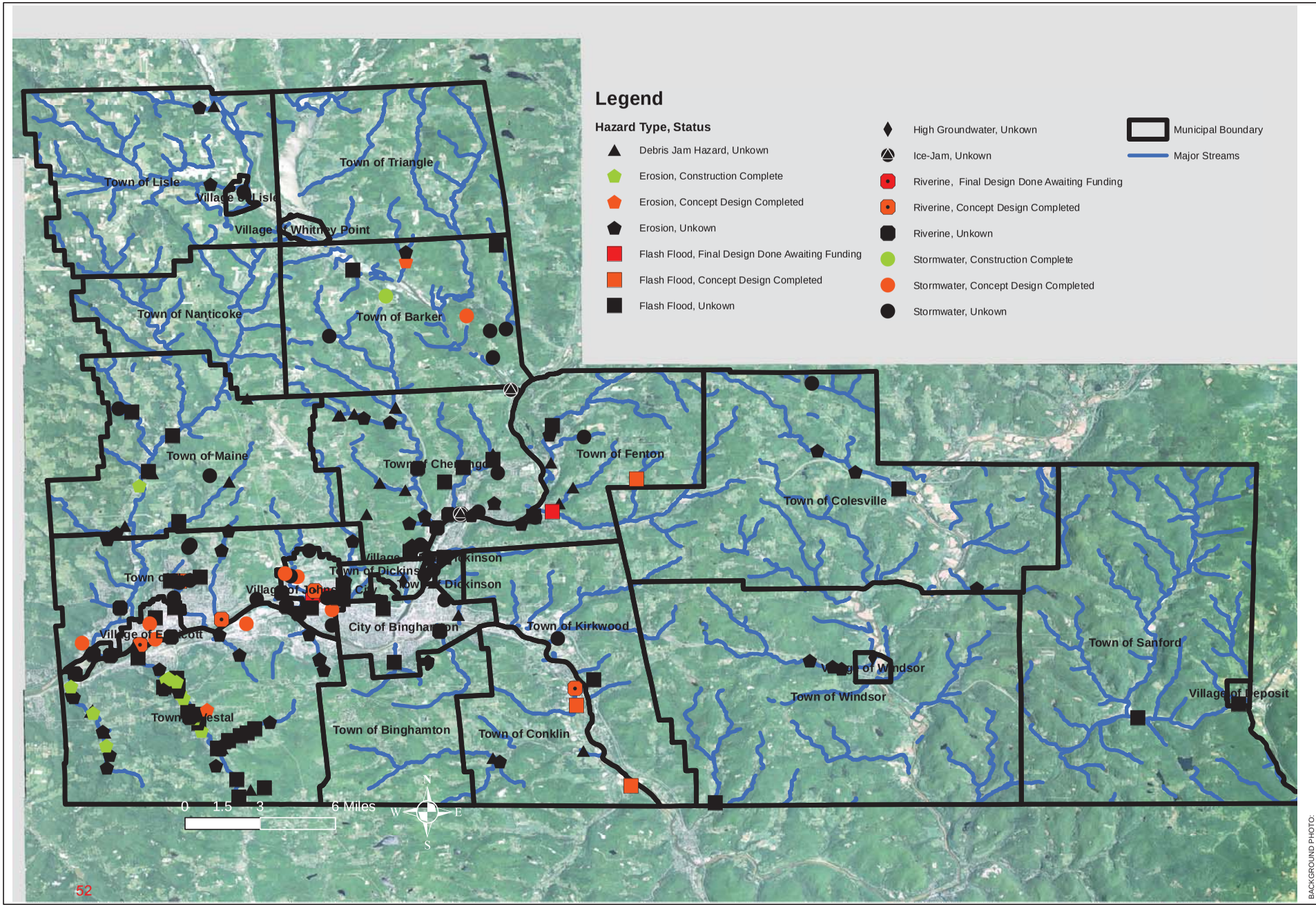
Title: HUC12 Watersheds for Broome County Flood Mitigation Analysis		
Ranked by High Groundwater Score		
Date: 1/2/15		
By: GDF		
	Name	Ice Jam Score
1	Occanum Creek-Susquehanna River	30.15
2	Thomas Creek-Chenango River	8.45
3	Apalachin Creek	0
4	Belden Brook-Susquehanna River	0
5	Big Hollow-Lower West Branch Delaware River	0
6	Carlin Creek	0
7	Cascade Creek-Susquehanna River	0
8	Castle Creek	0
9	Cornell Creek-Susquehanna River	0
10	Crocker Creek	0
11	Culver Creek-Dudley Creek	0
12	East Branch Nanticoke Creek	0
13	Halfway Brook	0
14	Jennings Creek	0
15	Little Choconut Creek-Susquehanna River	0
16	Little Snake Creek	0
17	Lower Chocohut Creek	0
18	Lower Genegantslet Creek	0
19	Lower Nanticoke Creek	0
20	Lower Oquaga Creek	0
21	Lower Otselic River	0
22	Lower Starrucca Creek	0
23	Lower Tioughnioga River	0
24	Merrill Creek	0
25	Middle Chocohut Creek	0
26	Middle Genegantslet Creek	0
27	Middle Nanticoke Creek	0
28	Middle Tioughnioga River	0
29	Mitchell Creek-Susquehanna River	0
30	Ockerman Brook-Chenango River	0
31	Osborne Creek	0
32	Ouaquaga Creek-Susquehanna River	0
33	Page Brook	0
34	Park Creek-Susquehanna River	0
35	Patterson Creek-Susquehanna River	0
36	Sherman Creek-Lower West Branch Delaware River	0
37	Snake Creek	0
38	Tracy Creek-Susquehanna River	0
39	Trowbridge Creek	0
40	Upper Oquaga Creek	0
41	Upper Nanticoke Creek	0
42	Wylie Brook	0

Methodology for Updating Prioritization Maps and Tables

1. If the submitting municipality/department does have a folder, create a new folder under Data\ Save submitted electronic .pdfs in that folder.
2. In the submitted electronic .pdfs of table H1 and table H2 match the Hazard ID number nomenclature to the existing nomenclature for that municipality/public/department. If the municipality/department does not already have an existing nomenclature create one using four letters followed by a dash (for example XXXX-1. Continue the nomenclature in chronological order. Save and replace original .pdfs.
3. Print submitted .pdfs of table H1 and table H2 and print them as a pdf using Adobe pdf maker. Save .pdf into the appropriate folder. Take the newly printed copy and export as a Microsoft excel spreadsheet and save in the appropriate folder in Data\. Check excel spreadsheet, some data may have cut out. Update data if necessary. ***Make sure all longitudes are a negative value. Make sure all hazard types are spelled this way: Riverine, Flash Flood, Stormwater, Debris Jam, Erosion, Ice-Jam, High Groundwater.***
4. In the \Data\Prioritization Update Methodology folder copy the previous update folder, rename it as Prioritization with today's date. Open Conversion of Impact Answers to Numerical Values.xlsx. Paste in results from the Table H2 spreadsheet beginning at the appropriate cell. Check to make sure the right information is with the correct Hazard ID #. Save as Conversion of Impact Answers to Numerical Values with today's date (date format –XX-XX-XX).
5. Open a blank spreadsheet. Save spread sheet into the Prioritization with today's date folder you just created. Copy and paste in information from the H1 spreadsheets. Copy and paste special (values) the information from the Conversion of Impact Answers to Numerical Values–XX-XX-XX.xlsx, making sure the Hazard ID numbers match. Save file as Scored Hazards –XX-XX-XX in the Prioritization with today's date folder.
6. Open the BC Hazards for Updated Shapefile .xlsx file. Save As by changing the date to today's date and save in the Prioritization with today's date\ folder.
7. Open the newly created Scored Hazards –XX-XX-XX file. Rearrange columns in this file to match column order in the newly created BC Hazards for Updated Shapefile. Paste the information from Scored Hazards –XX-XX-XX into BC Hazards for Updated Shapefile starting at the first blank row. Columns "N" and "O" should populate automatically. Adjust format of cells if necessary. Save both files.
8. Save BC Hazards for Updated Shapefile –XX-XX-XX as a .csv file.
9. Open ArcGIS map Hazard Updated map in Prioritization with today's date\ folder. Save .mxd in the folder you just created as Hazard Updated Map XX-XX-XX (today's date)
10. Import BC Hazards for Updated Shapefile –XX-XX-XX .csv file and display XY Data.
11. Export the XY data into the Prioritization with today's date\ folder you created. Save As BCHazards with today's date in the XX-XX-XX format.
12. Display the newly created table in ArcGIS.
13. Edit the HUC12 attribute fields by adding in the HUC12 the Hazard is in. Save Edits. Export edited shapefile as a .txt file and save Prioritization with today's date\ folder with the name BCHazards_today's date (XX-XX-XX).

14. Open the file you just created (it will be a .csv file). Delete FID Column and all older data. Save file. Check to make sure all data was exported correctly (check dates, hazard type, scoring). Edit spreadsheet with right data.
15. Open the Prioritization Calculations for Raw_Norm_Paired_XX-XX-XX.xlsx file. Save file in the Prioritization with today's date\ folder, replace the date with today's date.
16. Copy and paste the information from the BCHazards_XX-XX-XX .csv file into Prioritization Calculations for Raw_Norm_Paired_XX-XX-XX.xlsx file into the appropriate HUC12. Complete this by inserting blank rows into the middle of the HUC12's section. Then copy and paste the new data into the blank rows. Repeat for each HUC12 that has new data. Update any cells that haven't been automatically filled in (HUC12 or DS HUC12). Save file.
17. Open new spreadsheet. Copy and paste special (values and number formats) the "Summary" worksheet in the Prioritization Calculations for Raw_Norm_Paired_XX-XX-XX.xlsx file into the new spreadsheet. Save File as a .csv file with the name Calculated HUC12_with today's date. Amend any Div/0 with 0. Save file.
18. In ArcGIS map, open the Broome HUC12 attribute table. Join the table with the Calculated HUC12_XX-XX-XX.csv file using the attribute of "Name". Use the RawScore attribute for the symbology and match the symbology and labels to previous maps.
19. Save .mxd as Hazard Updated Raw Score Map with today's date. Export Map as .pdf to the Prioritization with today's date\Exported Maps Folder
20. Repeat last step for Normalized scoring map, Paired Aggregate maps and all hazard type Maps and save in \Exported Maps Folder.
21. Open Prioritization Tables XX-XX-XX.xlsx and save into \Updated Prioritized Tables folder by changing the dates to today's date (-XX-XX-XX).
22. Copy the columns from the Prioritization Calculations for Raw_Norm_Paired_with today's date that match the columns in the Prioritization tables with today's date "pasted scores" worksheet. Paste special the data with numbers and values into the matching columns. Replace any "Div/0" values with 0.
23. Save Prioritization Calculations for Raw_Norm_Paired_with today's date and close.
24. In the Prioritization Tables today's date.xlsx, Copy the columns in the "Summary Table Alph" worksheet (Column "A"-"E") and paste special (values and format) into "Printed Table Ranked" worksheet. Sort by subtotal score, largest to smallest. Update title of table and print as .pdf into \Exported Maps Folder .
25. Copy columns in the "Summary Table Alph" worksheet that match the columns in the "Printed Tables by Hazard" worksheet. Sort largest to smallest by the score. Update the titles of each table and print into \Exported Maps Folder. Save the file and close.
26. Delete all files from the previous updates.

Title: List of Task Force Members	
Date: 3/18/16	
Name/Contact Information	Organization
abuyck@btboces.org	BOCES
Alex Mendelson	Binghamton University
Alex Urda	Town Engineer
Amanda Spellicy	Sen. Schumer
assessor@townofchenango.com	Town of Chenango Assessor
'barkersup@stny.rr.com'	Town of Barker Supervisor
Bernardo, John M.	Dept County Exec
Bob Bennett	JC Public Works
Boulton, Leslie G.	County Engineering
Brian Aukema	Cornell Cooperative Extension
Chellis, Brett B.	County Emergency Services
Cheryl Sacco	Municipal Attornery
Chip McElwee	BC Soil and Water
Clifford Crouch	NYS Assembly
'colesvillesupervisor@echoes.net'	Town of Colesville
Cyndi Paddick	BMTS
Datta, Bijoy	Dept County Exec
David Brown	Windsor Code
Dee Golazeksi	Union Code
Denny White	Lourdes Hospital
'DewDec17@yahoo.com'	Town of Sanford Supervisor
dohara@cglawoffices.com	Municipal Attornery
Donna Lupardo	NYS Assembly
Doug Saunders	Kirkwood Code
Egitto, Beth A.	BC Planning
Elaine Jardine	Tioga Cty Planning
engineer@endicottny.com	Endicott Engineer
Gerald Abbey	Union Endicott School District
Gerald Seymour	Town of Sanford Highway
Gloria Poff	NYS Assembly
gordi@townofkirkwood.org	Kirkwood Supervisor
gwcampo@vestalny.com	Vestal Engineer
Harpreet Kaur	Binghamton University
Jenn Yonkoski	BMTS
Jim Dedrick	Barker Code
John Mastronardi	Town Engineer
Jordan Baugh, Sen. Gillibrand Office	Sen. Gillibrand
jschaffer@vestalny.com	Town of Vestal Supervisor
JThigpen@co.chemung.ny.us	Southern Tier Central Regional Planning
judys@villageofjc.com	Village of JC
'Kburke7@stny.rr.com'	Village of Port Dickinson
Ken Jennison	Code Officer
Kevin McCabe	Governor Cuomo's Office
Laura McKane	Town of Vestal
Leigh McCullen	City of Binghamton Planning
leon.skinner@usace.army.mil	USACE
Marchie Diffendorf	County Legislator
Martin, Aaron M.	Clerk of the BC Legislature
Mayor Deemie	JC Mayor
Mayor Tinney	Village of Nichols (Tioga County)
mayor@cityofbinghamton.com	Binghamton Mayor
Michael Donahue	Town of Binghamton
mmarina191@aol.com	Union Planning
mminoia@vestalny.com	Vestal Assessor
NanticokeSupervisor@stny.rr.com	Town of Nanticoke
Nick Pappas	Town of Binghamton Code
Ponticiello, Michael A.	BC Emergency Services
Preston, Debbie A.	County Exec
Reynolds, Daniel D.	County Legislator
Ronald.Raymond@semo.state.ny.us	NYS Division of Homeland Security
Ron Lake	Town Engineer
rsotak@townofunion.com	Union Supervisor
Schofield, Daniel A.	BC Public Works Commissioner
Sdoherty@stny.rr.com	Code Officer
Serowik, Raymond M.	BC Emergency Services
Steve Rafferty	Dickinson Code Officer
supervisor@townofbinghamton.com	Town of Binghamton Supervisor
supervisor@townofchenango.com	Chenango Supervisor
supervisor@townofunion.com	Union Supervisor
tfenton-engineer@stny.rr.com	Fenton Engineer
tfenton-supv@stny.rr.com	Fenton Supervisor
Tom Lamphere	Binghamton University
Town of Sanford Secretary	Sanford Secretary
townoftriangle@stny.rr.com	Town of Triangle
villageofwindsor@echoes.net	Village of Windsor
voemayor@stny.rr.com	Village of Endicott
windsortc3@echoes.net	Windsor Supervisor
wpmayor@stny.rr.com	Whitney Point Mayor
wsnecham@gw.dec.state.ny.us	NYS DEC



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BACKGROUND PHOTO:
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BROOME COUNTY
FLOODING HAZARDS STATUS

BROOME COUNTY
FLOOD HAZARD MITIGATION STUDY

BROOME COUNTY, NY

DATE: 5/20/15
DESIGNED BY:
DRAWN BY: GDF
CHECKED BY:
PROJECT NO:
FIGURE NUMBER
1