

CRS Demonstration Project

A Flood Risk Management Tool for the Towns of Parma, Ontario, and Huron and the
Village of Sodus Point

DRAFT

CRS Demonstration Project:

*A Flood Risk Management Tool for the Towns of Parma, Ontario, and Huron and the
Village of Sodus Point*

June 2017

Jayme Breschard Thomann, AICP, CFM
Project Manager

David Zorn, Executive Director

Genesee/Finger Lakes Regional Planning Council

50 West Main Street • Suite 8107

Rochester, NY 14614

(585) 454-0190

www.gflrpc.org

G/FLRPC would like to thank the following people for their participation:

Mary E. Austerman, Great Lakes Coastal Community Specialist, New York Sea Grant

Charlie DeMinck, Code Enforcement Officer, Town of Ontario

Supervisor Laurie Crane, Town of Huron

Roger Gallant, Code Enforcement Officer, Town of Huron

Shannon Jarbeau, CFM, CRS & Floodplain Coordinator, Barnstable County/

Cape Cod Cooperative Extension

Supervisor Steve LeRoy, Town of Sodus

Marianne Luhrs, AICP, Natural Hazards Program Specialist/Regional CRS Coordinator,

FEMA Region II Mitigation Division

Trustee Dave McDowell, Village of Sodus Point

Councilman Kyle Mullen, Town of Parma

William Nechamen, CFM, Chief, Floodplain Management Section, NYSDEC

Dennis Scibetta, Building and Development Coordinator, Town of Parma

Supervisor Jim Smith, Town of Parma

Supervisor John Smith, Town of Ontario

Valerie Smith, Confidential Clerk to Town Supervisor, Town of Ontario

Marilee Stollery, Watershed Management Chairperson, Town of Ontario

Mayor Chris Tertinek, Village of Sodus Point

Nicole Yonker, Building/Planning/Zoning Clerk, Town of Ontario

*Funding for this project is made possible by the New York State Environmental Protection Fund and
Article 14 of Environmental Conservation Law.*

Table of Contents

Executive Summary	1
Section I – Introduction	5
<i>What is the Community Rating System (CRS)?</i>	5
<i>How active is CRS participation in New York State?</i>	7
<i>Why is this project important?</i>	9
Section II – Methodology	11
<i>New York Uniform Minimum Credit</i>	12
Section III – Results of the CRS Quick Check	21
<i>Town of Parma, Monroe County</i>	23
<i>Town of Ontario, Wayne County</i>	41
<i>Town of Huron, Wayne County</i>	59
<i>Village of Sodus Point, Wayne County</i>	77
Section IV – Solutions to Encourage Municipal Participation and Advancement	91
<i>Intermunicipal Agreements</i>	92
<i>Regional Planning</i>	93
<i>Watershed Management and Local Waterfront Revitalization Programs</i>	96
<i>Nonprofit Organization</i>	97
Section V – Conclusion	99
<i>Next Steps</i>	100
Bibliography	101

Appendices

A: CRS Quick Check Tool

B: Cost-Benefit Analysis Tool

C: List of Changes in the 2017 CRS Coordinator's Manual

D: Template for Regional Service Delivery

E: New York State Crosswalk Example

DRAFT

Executive Summary

Flooding is the primary natural hazard in New York State, causing millions of dollars' worth of damage to homes and businesses each year. New York State is vulnerable to both inland and coastal flood hazards; although some regions are more susceptible to multiple flood events than others, there are no areas exempt from flooding. Even with thousands of communities participating in the National Flood Insurance Program (NFIP), flood damages continue to rise. New York State has experienced 140 flood-related disasters since 1954; 51 of the events were designated major disasters.¹ With more intense storms and rainfall in recent years, the probability of future flooding across New York State is extremely high. In order to achieve a greater level of resiliency and reduce overall flood losses, a variety of flood risk management tools must be used. Flood risk management is a concept that recognizes flooding will happen, but manages the impacts by focusing on land use planning and building codes, nature-based shoreline protection and green infrastructure, and cooperative partnerships. The Community Rating System (CRS) is a flood risk management tool that considers current and future social, economic, and environmental conditions and designs a flood management program that best suits the local community.

The *CRS Demonstration Project* seeks to provide education and outreach about the CRS; a national program that can help communities reduce their flood vulnerability by improving existing floodplain management efforts. The project is located along the Lake Ontario shoreline within New York's Great Lakes basin. Warmer lake temperatures and decreased winter ice cover has increased the risk of flooding and shoreline erosion in this region. Along with the loss of wetlands and more structures and infrastructure constructed in the floodplain, over time, Great Lakes basin communities are at considerable risk to flooding and the degradation of their natural systems. This priority is reflected by the Federal Emergency Management Agency's (FEMA) current efforts to produce updated Great Lakes Flood Maps, which will reflect a better estimate of coastal flood hazards on the Great Lakes (e.g., VE zones and Limits of Moderate Wave Action).

¹ "2014 New York State Hazard Mitigation Plan," NYS Division of Homeland Security & Emergency Services, accessed January 23, 2017, <http://www.dhses.ny.gov/recovery/mitigation/documents/2014-shmp/Section-3-9-Flood.pdf>.

The communities of the Town of Parma in Monroe County and the Towns of Ontario and Huron and the Village of Sodus Point in Wayne County have been selected for assistance in improving their floodplain management programs using the CRS. All four communities have a large amount of flood insurance policies as compared with surrounding communities in their county. They also have limited resources to invest in fully learning about how the CRS works and how the community can benefit.

The CRS rewards communities with reduced flood insurance premiums for actions that go above and beyond the minimum requirements for participation in the NFIP. Not all communities are aware of the CRS, nor do they fully understand how to request CRS credit, application procedures, or community responsibilities. This is especially important for coastal communities along the Great Lakes, which are susceptible to storm surges, coastal flooding, and shoreline erosion and are looking to implement actions that address climate change adaptation, mitigation, and resiliency. While FEMA provides resources about the CRS, such as the *Coordinator's Manual*, the CRS Resources website, and NFIP/CRS courses at the Emergency Management Institute (EMI) in Emmitsburg, MD—many local building and code officials and elected officials would benefit greatly from direct assistance provided by entities that understand the local community; in this case, New York State's Great Lakes basin.

Through technical assistance and guidance provided by the Genesee/Finger Lakes Regional Planning Council (G/FLRPC), the Towns of Parma, Ontario, and Huron and the Village of Sodus Point have participated in a CRS self-assessment, with strengths highlighted in the following CRS activity areas:

- The Town of Parma is a regulated Municipal Separate Storm Sewer System (MS4), with permit requirements that achieve credit points under Activities 450 (Stormwater Management) and 540 (Drainage System Maintenance). The Town also has an *Agricultural & Farmland Protection Plan* (2009), Environmental Protection Overlay Districts, and a Conservation Advisory Board² that can assist with Activity 420 (Open Space Preservation) efforts.
- The Town of Ontario is also a regulated MS4 that can achieve credit points under Activities 450 (Stormwater Management) and 540 (Drainage System Maintenance). The Town's Watershed Management Council provides credit points for Activity 360 (Flood Protection Assistance). An online geographic information system (GIS) with FEMA flood zones and building footprints provides opportunity for Activity 440 (Flood Maintenance Data).

² The Conservation Advisory Board was disbanded at the January 3, 2017 meeting of the Parma Town Board. The minutes read, "There was discussion on the purpose of this Board, how it might better serve the Town and support the Planning Board and attendance. It is advisory only, representation at County meetings is needed as well as site reviews for the Planning Board. Future consideration will be given to having one or two persons who would perform those tasks and be paid on a per diem basis."

- The Town of Huron is one of 42 communities certified by the New York State Department of Environmental Conservation with its own coastal erosion hazard area law. The Town also has a Flood Damage Prevention Local Law with higher standards than the minimum floodplain management requirements, which can achieve credit points under Activity 430 (Higher Regulatory Standards). There is also potential credit for stormwater management and erosion and sedimentation controls under Activity 450 (Stormwater Management).
- The Village of Sodus Point has an approved Local Waterfront Revitalization Program (LWRP), which can assist with Activity 510 (Floodplain Management Planning). The LWRP and the Village of Sodus Point Waterfront Consistency Law, adopted in accordance with Article 42 of the Executive Law of the State of New York, provides opportunity for Activity 420 (Open Space Preservation) and Activity 450 (Stormwater Management) efforts. Collaborating with community organizations also has the potential to achieve credit points under Activities 330 (Outreach Projects) and 350 (Flood Protection Information).

Each community has been assessed using the CRS Quick Check tool, which is an Excel spreadsheet. Spreadsheets can be found in Appendix A. This report contains a narrative that complements the CRS Quick tool. Section III discusses the results of the assessment, along with each community's strengths and areas of opportunity. Community reports can be read as standalone documents.

This report intends to help the participating communities move forward in the CRS certification process. By documenting the activities required for participation, application procedures, and advancement in the program, this report will also serve as a model to other New York State communities wanting to know more about the CRS and how they can design or improve their floodplain management programs.

DRAFT

Section I - Introduction

What is the Community Rating System (CRS)?

The NFIP was created in 1968 by Congress to help people financially protect themselves from flooding. The NFIP offers flood insurance to homeowners, renters, and business owners if their community participates in the NFIP and enforces floodplain management regulations. These regulations include minimum construction requirements in the Special Flood Hazard Area (SFHA). The SFHA is a “high-risk flood zone.”

Flood risk zones are determined by FEMA on a community’s Flood Insurance Rate Map (FIRM). Zones beginning with the letter “A” are high-risk flood areas, which are subject to inundation during a 100-year flood. This is the “base flood” or flood elevation that has a 1-percent chance of being equaled or exceeded each year. The SFHA includes all “A” and “V” FIRM zones (V Zones apply in coastal situations with additional hazards associated with storm-induced waves). Low-to-moderate flood risk areas are subject to the 500-year flood, which means a flood of that size or greater has a 0.2-percent chance (or 1 in 500 chance) of occurring in a given year. They are shown on the FIRM as Zone B or Shaded Zone X. Zone C or Unshaded Zone X are outside the 1%- and 0.2%-annual chance floodplains with low flood risk. Structures in the SFHA with mortgages from federally regulated or insured lenders are required to have flood insurance. A resident will not be able to purchase a flood insurance policy if their community does not have floodplain regulations that meet or exceed NFIP criteria.

The CRS is a voluntary incentive program developed by FEMA that recognizes communities for enforcing floodplain management activities that exceed the minimum NFIP requirements. The CRS supports the NFIP by seeking to achieve the following three goals:

1. Reduce and avoid flood damage to insurable property,
2. Strengthen and support the insurance aspects of the NFIP, and
3. Foster comprehensive floodplain management.

There are many benefits to comprehensive floodplain management such as improved public safety, property loss reduction, open space and natural resource protection, and better post-disaster recovery. The CRS rewards communities that implement activities that exceed the minimum NFIP requirements

and work toward the three goals of the CRS by providing flood insurance premium rate reductions to policyholders.

Any community that is in full compliance with the NFIP may apply to join the CRS. CRS credit points are earned for a wide range of floodplain management activities, which are organized under four categories with 19 activities:

- I. Public Information Activities (300 Series)***
 - 1) 310 Elevation Certificates
 - 2) 320 Map Information Service
 - 3) 330 Outreach Projects
 - 4) 340 Hazard Disclosure
 - 5) 350 Flood Protection Information
 - 6) 360 Flood Protection Assistance
 - 7) 370 Flood Insurance Promotion
- II. Mapping and Regulations (400 Series)***
 - 8) 410 Floodplain Mapping
 - 9) 420 Open Space Preservation
 - 10) 430 Higher Regulatory Standards
 - 11) 440 Flood Data Maintenance
 - 12) 450 Stormwater Management
- III. Flood Damage Reduction Activities (500 Series)***
 - 13) 510 Floodplain Management Planning
 - 14) 520 Acquisition and Relocation
 - 15) 530 Flood Protection
 - 16) 540 Drainage System Maintenance
- IV. Warning and Response (600 Series)***
 - 17) 610 Flood Warning and Response
 - 18) 620 Levees
 - 19) 630 Dams

Communities apply for a CRS classification and are awarded credit points that reflect the impact of their floodplain management activities. The ISO/CRS Specialist reviews the community's program and verifies the CRS credit. The ISO/CRS Specialist is an employee of Insurance Services Office, Inc. (ISO), FEMA's CRS management contractor.

Similar to fire insurance rating, the CRS uses a Class rating system to determine the premium discount for policyholders. All communities start out with a Class 10 rating (which provides no discount), then range from 5% (Class 9) to a maximum of 45% (Class 1). As a community engages in additional CRS-credited actions, increased NFIP policy premium discounts are available. Communities advance in CRS

Classes by improving their floodplain management efforts and making changes to help eliminate or reduce exposure to floods. In this way, CRS performance metrics create a baseline by which municipalities can measure their progress towards reducing flood vulnerability and improved long-term resiliency. The qualifying community total points, CRS classes, and flood insurance premium discounts are shown in the table below.

CRS Classes, Credit Points and Premium Discounts			
CRS Class	Credit Points (cT)	Premium Reduction	
		In SFHA	Outside SFHA
1	4,500+	45%	10%
2	4,000–4,499	40%	10%
3	3,500–3,999	35%	10%
4	3,000–3,499	30%	10%
5	2,500–2,999	25%	10%
6	2,000–2,499	20%	10%
7	1,500–1,999	15%	5%
8	1,000–1,499	10%	5%
9	500–999	5%	5%
10	0–499	0	0

*SFHA: Zones A, AE, A1–A30, V, V1–V30, AO, and AH.
Outside the SFHA: Zones X, B, C, A99, AR, and D.*

Preferred Risk Policies are not eligible for CRS premium discounts because they already have premiums lower than other policies. Preferred Risk Policies are available only in B, C, and X Zones for properties that are shown to have a minimal risk of flood damage.

Some minus-rated policies may not be eligible for CRS premium discounts.

Premium discounts are subject to change. *CRS Coordinator's Manual*
(Edition: 2013)

How active is CRS participation in New York State?

There are nearly 22,000 communities participating in the NFIP across the country, representing over 5.5 million flood insurance policies. Of those flood insurance policies in effect, 67% are within communities that participate in the CRS (1,229).³ New York State has 1,500 participating communities in the NFIP.⁴ Only 2% of these communities (33) participate in the CRS, however. The Village of Freeport, City of Long Beach, and Town of Middletown have the highest rating in New York State, which is a Class 7. The Town

³ "National Flood Insurance Program's Community Rating System," NYSDEC, accessed January 23, 2017, http://www.dec.ny.gov/docs/administration_pdf/crs.pres.pdf.

⁴ "The National Flood Insurance Program Community Status Book," FEMA, accessed January 23, 2017, <https://www.fema.gov/national-flood-insurance-program-community-status-book>.

of Greece and the City of Batavia are the only municipalities in the Genesee-Finger Lakes Region (e.g., Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates Counties) that participates in CRS. Recently, the Town of Greece increased its rating from a Class 8 to a Class 7—and is only 60-points away from attaining Class 6.⁵ In contrast, Florida has well over 200 communities participating in the CRS, with numerous communities achieving a Class 5 rating. While not as many communities in Washington State participate in the CRS as does Florida (about 37), Washington has several communities that have achieved Class ratings below a 5.⁶ This represents premium discounts ranging from 30% to 45% for eligible policies in the SFHA (10% discount in the non-SFHA).

States like Florida and Washington have better community participation and classification in the CRS because they have county-level land use authority as opposed to New York State, where Home Rule is the foundation of state-local governmental relations. Constitutional home rule power is rooted in the present Article IX of the State Constitution, adopted in 1963 and granted to all counties outside New York City and all cities, towns, and villages. The enactment of Article IX of the State Constitution, the Municipal Home Rule Law, and the Statute of Local Governments recognizes that local governments can implement policies as related to “property, affairs or government.” Local laws must be inconsistent with any provision of the State Constitution and within municipal police power, which is the power “to regulate persons and property for the purpose of securing the public health, safety, welfare, comfort, peace and prosperity of the municipality and its inhabitants.”⁷ There are no unincorporated territories administered by counties in New York State; all land areas are part of a larger municipality with powers to collect local taxes and assessments for local improvements, provide for the protection and enhancement of the physical and visual environment, and the apportionment of local legislative bodies, as well as other powers.

Many counties in New York State do engage in activities that assist communities with planning, code enforcement, natural resource conservation, emergency management, and other functions. These activities are nonetheless undertaken by counties that *do not* directly participate in the NFIP—thus *do not* directly participate in the CRS. While communities can still receive credit points for these activities,

⁵ FEMA Verification Report for the Town of Greece, October 15, 2015.

⁶ “Community Rating System,” FEMA, accessed September 7, 2016, http://www.fema.gov/media-library-data/1458756801023-311019d76271533f6b21ce505df7bd3c/20_crs_508_apr2016.pdf.

⁷ “Adopting Local Laws in New York State,” NYSDOS James A. Coon Local Government Technical Series, accessed January 23, 2017, https://www.dos.ny.gov/lg/publications/Adopting_Local_Laws_in_New_York_State.pdf.

the workload of the community CRS Coordinator is increased by the need to inform county staff about CRS scoring criteria and required documentation.

In addition to Home Rule, New York State communities are generally small, with very limited capacity to understand and implement CRS activities. Approximately 840 communities have populations between 1,000 and 7,500; about 250 are below 1,000.⁸ In these circumstances, community responsibilities are handled by part-time staff and volunteer boards. These small communities generally do not have the expertise or tools to acquire credit points, such as geographic information systems (GIS) to prepare impact adjustment maps, floodplain mapping, or open space preservation. Only about 11% of New York State municipalities have more than 100 NFIP policies.⁹ While the purpose of the CRS is to support the NFIP and achieve such goals as the protection of lives and reduced flood losses, small communities with few NFIP flood insurance policies still find it challenging to devote staff time and resources to qualify a limited number of residents for insurance discounts.

Why is this project important?

Many of the municipal participants stated that without G/FLRPC introducing the CRS and assisting with the CRS Quick Check, they never would have been able to “get the ball rolling.” As stated above, many communities in New York State lack the capacity, time, and funding to research the prerequisites and responsibilities of participation in the CRS. Having a regional entity like G/FLRPC introduce the program and assist with the community self-assessment educates elected officials on the benefits of the program. When elected officials understand the purpose of the CRS, they can better provide the resources to municipal staff responsible for floodplain management.

A CRS White Paper was developed through the Hudson Estuary Watershed Resiliency Project that conducted interviews with local officials in communities either enrolled or in the process of applying to the CRS in New York State. The report summarizes the interviews and their findings on the process, benefits, and challenges to joining the CRS. A few takeaways include:

- Communities with 5,000-10,000 total population would not have the capacity to support the CRS program, and

⁸ “New York Cities by Population,” Demographics by Cubit, accessed January 23, 2017, http://www.newyork-demographics.com/cities_by_population

⁹ “Policy & Claim Statistics for Flood Insurance,” FEMA, accessed January 23, 2017, <https://www.fema.gov/policy-claim-statistics-flood-insurance>.

- At least 100 flood insurance policies make CRS participation worthwhile.

Flood hazard mapping is an important part of the NFIP, as it is the basis of the NFIP regulations and flood insurance requirements. FEMA maintains and updates data through FIRMs and risk assessments. FIRMs include statistical information such as data for river flow, storm tides, hydrologic/hydraulic analyses and rainfall and topographic surveys. So, if the flood hazard maps for a community are outdated, then flood risk is not adequately communicated and property owners, therefore, may not be purchasing the flood insurance that is required or needed.

Currently, of the nine counties in the Genesee-Finger Lakes Region, one has adopted the Digital Flood Insurance Rate Map (DFIRM), six are using Q3 Flood Data, and two are using FIRMs (e.g., paper flood maps). The Q3 flood layer is GIS data digitized from paper maps and distorted to approximate real world geography. FEMA replaced the digital Q3 Flood Data with DFIRMs that have links to databases containing the engineering back-up material used to develop the map Digital Flood Maps (e.g., hydrologic and hydraulic models, flood profiles, floodway data table, Digital Elevation Models, and structure specific data, such as digital elevation certificates and digital photographs of bridges and culverts). Unlike the Q3 data, DFIRMs will be of the same spatial precision and accuracy of the paper maps.¹⁰ While there are many communities in the Region with small populations, the lack of reliable digital flood hazard data and maps adversely impact the amount of flood insurance policies—which altogether undervalues flood risk.

G-FL Region County	Flood Map Status	Census 2010 Total Population
Genesee	Q3	60,079
Livingston	Q3	65,393
Monroe	DFIRM	744,344
Ontario	Q3	107,931
Orleans	Not Digitally Mapped	42,883
Seneca	Q3	35,251
Wayne	Q3	93,772
Wyoming	Not Digitally Mapped	42,155
Yates	Q3	25,348

A cost-benefit analysis tool that shows current and potential dollar savings in flood insurance premium reductions for various CRS classes is included as Appendix B for each participating community.

¹⁰ “2014 New York State Hazard Mitigation Plan,” NYS Division of Homeland Security & Emergency Services, accessed January 30, 2017, <http://www.dhses.ny.gov/recovery/mitigation/documents/2014-shmp/Section-3-9-Flood.pdf>.

Section II – Methodology

Any community in full compliance with the rules and regulations of the NFIP that qualifies for a Class 9 credit (500 credit points) can apply to the CRS. The “CRS Quick Check” is the best way to determine whether a community is implementing activities that would receive the 500 verified credit points to become a Class 9 or better. The Quick Check is a tool developed by FEMA that helps estimate credit for a community by examining the most common CRS activities (elements that have been credited for at least 75% of the CRS communities in the country).

Four Quick Check visits occurred between June-August 2016 with the participating communities. G/FLRPC served as the organizer to help explain the questions and recognize information gaps, as well as to facilitate dialogue. Municipal staff such as Code Enforcement Officers and administrators, as well as elected officials (e.g., supervisor, mayor, and village trustee), worked collaboratively at these meetings to answer statements about FEMA Elevation Certificates, mapping and regulations, outreach projects, and stormwater management. G/FLRPC awarded credit points conservatively via the CRS Quick Check Excel spreadsheet, as opposed to the potential maximum credit.

Should any of the participating communities decide to request a CRS classification, the CRS Quick Check can serve as the documentation to ISO showing that the community is implementing activities that warrant at least 500 points. The other item required for an application to request a CRS classification is a letter of interest to the FEMA Regional Office from the community’s chief executive officer. More detail is available in the *2013 CRS Coordinator’s Manual*.

In accord with its routine three-year cycle, the CRS is preparing to release an updated version of the *CRS Coordinator’s Manual*. The draft document is undergoing final review at the Office of Management and Budget (OMB) to ensure adherence with the requirements of the Paperwork Reduction Act. When OMB issues its final approval and sets an effective date—expected to be January 1, 2017—the new *Coordinator’s Manual* will be available for download at www.CRSresources.org and at other sites.

Unlike the previous, 2013, edition, the upcoming *Coordinator’s Manual* will include no major changes. Numerous improvements, clarifications, and minor corrections are being made, some of which are quite important even though they do not require substantive changes to a community’s CRS program or procedures. The 2017 changes can be found in Appendix C.

To participate in the CRS, a community must:

- Be in the Regular Phase of the NFIP for at least 1 year.
- Be in full compliance with the minimum requirements of the NFIP. This is documented by a “letter of full compliance” from the FEMA Regional Office.
- Keep elevation certificates, Flood Insurance Rate Maps, and Flood Insurance Studies for as long as the community is in the CRS.
- Communities with repetitive loss properties have additional requirements. (FEMA or the ISO/CRS Specialist can provide repetitive loss information to local officials.)
- Maintain flood insurance on all buildings owned by the community that are required to have flood insurance.
- Designate a CRS Coordinator.
- Cooperate with the ISO/CRS Specialist and the verification procedures.
- Submit a recertification each year attesting that all credited activities are still being implemented.
- Track the area of the regulated floodplain and the number of buildings in the regulated floodplain each year.
- Maintain other records of activities until they are reviewed at the next verification visit.

New York Uniform Minimum Credit

The CRS provides Uniform Minimum Credit (UMC) for certain state laws, regulations, and standards that support floodplain management and have effectively reduced flood damages. In New York State, there are several activity areas where a community may earn credit points for simply enforcing State mandates.¹¹ These points are indicated on each community’s CRS Quick Check Excel spreadsheet, and are described in the following details.

Activity 340. Flood Hazard Disclosure

Approximately fifteen points are awarded to New York State communities under Other Disclosure Requirements (ODR) for the “Property Condition Disclosure Act,” which is Article 14 of the New York Real Property Law, Section 462. This law requires that the seller of residential real property complete, sign, and deliver a property condition disclosure statement to a buyer or buyer’s agent prior to the signing of a binding contract of sale. This is a statement of certain conditions and information concerning the property known to the seller, based upon actual knowledge. It is not a warranty of any kind by the seller or by any agent representing the seller, nor is it a substitute for any inspections or

¹¹ “CRS Uniform Minimum Credit New York,” CRS Resources, accessed January 23, 2017, http://crsresources.org/files/200/umc/new_york.pdf.

tests. The buyer is encouraged to obtain an independent professional inspection(s) and environmental tests and to check public records pertaining to the property.

The Property Condition Disclosure Statement asks the following questions in the Environmental section:

10. Is any or all of the property located in a designated floodplain?

11. Is any or all of the property located in a designated wetland?

Property Condition Disclosure Statement, or DOS-1614 (Rev. 8/06), is available on the New York State Department of State (DOS) website.

Activity 450. Stormwater Management

In New York State, the Department of Environmental Conservation (DEC) administers the U.S. Environmental Protection Agency's (EPA) Stormwater Phase II Rule that regulates stormwater runoff. This program, called the State Pollutant Discharge Elimination System (SPDES) Permit Program, has two SPDES General Permits that govern how and when stormwater runoff is managed. The SPDES Permit Program awards New York State communities with about ten points for Erosion and Sediment Control Regulation (ESC) and another twenty points for Water Quality Regulations (WQ).

A general SPDES permit for construction activities was approved for New York State by the Environmental Protection Agency on August 1, 1993. That permit was necessary for any construction site that disturbed five or more acres. The SPDES permit was revised in January, 2003 to incorporate the United States Environmental Protection Agency—National Pollutant Discharge Elimination System (NPDES) Phase 2 stormwater requirements.

The SPDES "General Permit for Construction Activity," (GP-0-15-002, effective January 2015) authorizes eligible stormwater discharges from construction projects that disturb one or more acres of land. The owner or operator must submit a Notice of Intent to DEC for Permit Coverage before any activity begins. A plan for managing runoff and controlling erosion and sedimentation, called a Stormwater Pollution Prevention Plan (SWPPP), must be developed. Each SWPPP is site specific and prescribes how stormwater will be managed during construction and post-construction:

- Identifies potential sources of stormwater pollution,
- Describes the practices that will be used to prevent stormwater pollution. These should include: erosion and sediment control practices, good housekeeping practices, conservation techniques, and infiltration practices (where appropriate), and

- Identifies procedures the operator will implement to comply with all requirements in the construction general permit.

SWPPPs are guided in New York State by the following resources:

- New York State Standards and Specifications for Erosion and Sediment Control, updated July, 2016 (August, 2005).
- New York State Stormwater Management Design Manual (“Design Manual”), updated January 2015 (2010).

Cities, towns, villages, counties, and other types of public and quasi-public government units that own or operate small-scale storm sewer systems that discharge into New York State waters have been designated by DEC as Municipal Separate Storm Sewer Systems (MS4s). MS4s are determined by population density of 1,000 persons per square mile (U.S. Census Bureau’s definition of “urbanized area”). MS4 communities and certain covered entities wishing to discharge stormwater from their sewer systems must obtain coverage under the DEC SPDES “General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems” (GP-0-15-003, effective May 2015). They do so by submitting a Notice of Intent and indicating that they have developed and implemented a stormwater management program. MS4 stormwater programs have six elements called minimum control measures (MCM) that when implemented together, are expected to result in a reduction of pollutants discharged into waterbodies. Under the General Permit, MS4 communities that have traditional land use regulations must enact a local law or ordinance requiring developers to prepare a SWPPP and comply with local requirements.

DEC has prepared a DRAFT renewal of the SPDES General Permit for Stormwater Discharges from Municipal Separate Storm Sewer Systems (GP-0-17-002). When final, GP-0-17-002 will replace the current MS4 General Permit, GP-0-15-003, which is due to expire on April 30, 2017. GP-0-17-002 will be effective for a five (5) year term and will cover discharges of stormwater to surface waters of the State from small MS4s as defined in 40 CFR Part 122.26(a)(1)(v), 122.26(b)(8), and 122.26(b)(16)-(19).

Additional points (from 29.85 to 219) may be available for Stormwater Management Regulation (SMR) under Activity 450 for communities that manage new development of one acre or more and prevent increases in peak flows from the 10- and 100-year storms. Chapter 5: Green Infrastructure Practices of the 2015 Design Manual provides planning and design criteria on green infrastructure approach and

specifications for acceptable runoff reduction practices, which is cited in the performance and design criteria of DEC's Sample Local Law for Stormwater Management and Erosion & Sediment Control (2006):

3.1 Technical Standards

For the purpose of this local law, the following documents shall serve as the official guides and specifications for stormwater management. Stormwater management practices that are designed and constructed in accordance with these technical documents shall be presumed to meet the standards imposed by this law:

3.1.1 The New York State Stormwater Management Design Manual (New York State Department of Environmental Conservation, most current version or its successor, hereafter referred to as the Design Manual)

3.1.2 New York Standards and Specifications for Erosion and Sediment Control, (Empire State Chapter of the Soil and Water Conservation Society, 2004, most current version or its successor, hereafter referred to as the Erosion Control Manual).

Activity 430. Higher Regulatory Standards

The Uniform Fire Prevention and Building Code (Uniform Code) took effect in New York State on January 1, 1984 and prescribes minimum standards for both fire prevention and building construction. It is applicable in all municipalities of the State except New York City. New York State updated the Uniform Code and Energy Code in 2003 with several sub-units, based upon national model codes developed by the International Code Council (ICC), which are widely used throughout the country and provide a greater level of consistency. The previous Uniform Code was effective December 28, 2010 and based on the 2006 International Codes with New York State amendments (with exception to the Energy Code, which was based on the 2009 International Energy Conservation Code with New York State amendments). Effective October 3, 2016, the Uniform Code now consists of the 2015 editions of the International Code Council family of codes (the "2015 I-Codes"), as amended by the 2016 Uniform Code Supplement. Although the task of developing and promulgating the Uniform Code is a State responsibility, Executive Law § 381 directs that the cities, towns, and villages are responsible for enforcing the code. An individual city, town, or village cannot choose to exclude itself from the provisions of the Uniform Code. Executive Law § 381 does permit a municipality to decline responsibility for enforcement of the code within its boundaries however by adopting a local law stating that it will pass enforcement onto the county.

The 2015 I-Codes have not yet been assessed for UMC credit. Local Drainage Protection (LDP) and Freeboard (FRB) are two areas of the Uniform Code that communities were previously awarded CRS points for enforcing the statewide mandate. Up to ten points were previously awarded for requiring

positive drainage away from the foundation. The 2010 Residential Code of New York State (RCNYS) required drainage away from all buildings, not just those in special hazard areas:

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection so as to not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches (152 mm) within the first 10 feet (3048 mm).

The 2015 International Residential Code (IRC) reads similarly:

R401.3 Drainage. Surface drainage shall be diverted to a storm sewer conveyance or other approved point of collection that does not create a hazard. Lots shall be graded to drain surface water away from foundation walls. The grade shall fall a minimum of 6 inches (152 mm) within the first 10 feet (3048 mm).

Section R406 of the 2010 RCNYS discussed foundation waterproofing and dampproofing as does Section R406 of the 2015 IRC. Dampproofing is required for all foundation walls that retain earth and enclose interior spaces and floors below grade from the top of the footing to the finished grade. Waterproofing is required in areas where a high water table or other severe soil-water conditions are known to exist.

Freeboard is now contained within the 2016 Uniform Code Supplement for residential construction (R322.1.4.2) and for all other construction (1612.4.1):

R322.1.4.2 Freeboard. A freeboard of two feet shall be added where the design flood elevation or other elevation requirements are specified.

Exception: A freeboard shall not be required where it is not possible to obtain a design flood elevation from the FIRM or from any method established above and the design flood elevation is three feet above the highest adjacent grade.

1612.4.1 Elevation Requirements. Two feet shall be added where the design flood elevation or other elevation requirements are specified in ASCE 24.

Exception: Where it is not possible to obtain a design flood elevation in accordance with Section 1612.3.1, the design flood elevation shall be three feet above the highest adjacent grade, where the highest adjacent grade is the natural ground elevation within the perimeter of the proposed building prior to construction.

The NFIP requires that the lowest floor, including the basement, of all new residential construction and substantial improvement is elevated to or above the base flood elevation (BFE). New or substantially improved non-residential structures must be elevated or floodproofed to or above the BFE. A freeboard requirement adds height above the BFE to provide an extra margin of protection to account for waves, debris, miscalculations, or lack of data. In New York State, new and substantially improved residential

structures in special flood hazard areas are required to have the lowest floor elevated to or above the BFE plus 2-feet of freeboard (as per the 2010 RCNYS) and for all new and substantially improved construction as per the 2016 Uniform Code Supplement. (The lowest horizontal portion of the structural members of the lowest floor on adequately anchored pilings or columns in Zone VE and Coastal A Zones must be elevated to or above the BFE plus 2-feet.)

Activity 630. Dams

Up to 30 points can be awarded for State Dam Safety (SDS) based on the Association of State Dam Safety Officials' Dam Safety Program Management Tool: 15 points for Risk Communication and Public Awareness and 15 points for Emergency Action Planning. The SDS credit earned by the state dam safety office is provided to all communities that would be affected by a flood from the failure of a high-hazard-potential dam. This activity must be documented with a description and a map. DEC enforces requirements to operate and maintain dams in a safe condition, and monitors remedial work for compliance with dam safety criteria. According to the *2014 New York State Hazard Mitigation Plan*, Monroe County has 9 high-hazard dams and Wayne County has 2. None of the participating communities have upstream high-hazard-potential dams.¹² On average, about 60 points have been awarded to CRS communities in New York State under Activity 630.¹³

State-mandated Standards (SMS)

A community may receive 13.3 to 20 points for state-mandated regulatory standards in the 400 series. Credit equals 0.10 times the sum of credit points for floodplain management regulatory standards. This element recognizes that state-required measures implemented in both CRS and non-CRS communities across that state are beneficial to the NFIP. Better staff training and state oversight are other benefits to state-mandated regulations than other regulatory provisions.

An example is the Coastal Erosion Hazard Area (CEHA) Permit Program as defined by Article 34 of the Environmental Conservation Law. The Coastal Erosion Hazard Areas Law empowers DEC to identify and map coastal erosion hazard areas and to adopt regulations that control certain activities and development in those areas through a permitting system. The CEHA Permit Program provides written

¹² "New York State Dams Inventory," NYSDEC Dam Safety, accessed January 23, 2017, <http://www.dec.ny.gov/lands/4991.html>.

¹³ "CRS State Profile: New York," CRS Resources, accessed January 23, 2017, http://crsresources.org/files/200/state-profiles/ny-state_profile.pdf.

approval of regulated activities or land disturbance to properties within those coastal erosion hazard areas identified and mapped by DEC. There are 86 coastal communities in New York State that currently fall under CEHA jurisdiction: 42 communities have been certified by DEC and have their own coastal erosion hazard area law while the other 44 communities are managed by DEC. Additional credit may be available for open space preservation under Activity 420 (Open Space Preservation).

State-mandated freeboard and state-mandated building code are other examples discussed previously under Activity 430. Communities may receive additional credit under Activity 430 (Higher Regulatory Standards). To receive Freeboard credit, “freeboard must be applied to the elevation of the lowest floor of the building or to the elevation to which a nonresidential building is dry floodproofed, and to all components of the building, including all utilities, ductwork, and attached garages. All portions of the building below the freeboard level must be constructed using flood-damage-resistant materials. If the garage floor is below the freeboard level, the garage must meet the opening and wet floodproofing requirements for enclosures.”

The International Code Series (I-Codes) is a family of codes developed and maintained by the International Code Council, Inc. that shares common goals with the NFIP. Requirements related to building utilities are contained in the International Building Code and International Residential Code as well as in the International Plumbing Code, International Mechanical Code, International Fuel Gas Code, and International Private Sewage Disposal Code. The New York State Fire Prevention and Building Code Council completed a major update to the State Uniform Fire Prevention and Building Code (Uniform Code) on March 9, 2016. The 2015 I-Codes became effective October 3, 2016. The previous New York State Uniform Code was based on the 2006 International Codes, with New York State amendments.¹⁴ According to the *2013 CRS Coordinator’s Manual*, communities may receive up to 100 points for adoption of the entire I-Code, which must be enforceable throughout the whole community—not just the Special Flood Hazard Area.

Erosion and sedimentation control regulations may also receive credit under Activity 450 (Stormwater Management). SMS credit for state-mandated erosion and sedimentation control regulations (ESC) or water quality regulations (WQ) under Activity 450 (Stormwater Management) is provided only if the

¹⁴ “What’s New,” NYSDOS Division of Code Enforcement and Administration, accessed January 25, 2017, <https://www.dos.ny.gov/DCEA/news.html>.

state mandate exceeds the requirements for a NPDES permit. New York's SPDES Construction and MS4 programs contain requirements that are more stringent than the federal requirements; in particular, the requirement to implement green infrastructure.

DRAFT

DRAFT

Section III – Results of the CRS Quick Check

The following section summarizes each participating community's current level of floodplain management activity—highlighting its current strengths where the most credit points can be obtained. There is also discussion on proposed improvements or opportunities to expand upon flood protection activities, alone or with the help of other local government entities and/or organizations. The *2013 CRS Coordinator's Manual* should be consulted for further guidance in all of the credited activities reviewed.

The CRS Quick Check documents for all four participating communities can be found in Appendix A.

DRAFT

DRAFT

Town of Parma, Monroe County

Census 2010 Total Population: 15,633

Policies In-force (as of 01/31/2017): 97

CRS Quick Check	Now	Could
Total	536	831
Total "Now" + "Could"		1,367
Potential CRS Class	9	8

Strengths	Opportunities
Activity 310 (Elevation Certificates)	Activity 320 (Map Information Service)
Activity 360 (Flood Protection Assistance)	Activity 330 (Outreach Projects)
Activity 450 (Stormwater Management)	Activity 340 (Hazard Disclosure)
Activity 510 (Floodplain Management Planning)	Activity 420 (Open Space Preservation)
Activity 540 (Drainage System Maintenance)	Activity 440 (Flood Data Maintenance)
	Activity 610 (Flood Warning and Response)

Strengths

Activity 310 (Elevation Certificates)

FEMA Elevation Certificates on all new buildings and substantial improvements in the SFHA is mandatory for CRS classification. Almost all buildings constructed to meet NFIP criteria are raised so that the lowest floor is at or above the base flood elevation (plus two feet in New York State, beginning 2007). The appropriate record that shows that the building meets the code requirement is the FEMA Elevation Certificate. The Town of Parma states that it maintains Elevation Certificates on all buildings constructed, substantially improved, or placed in the SFHA. It is the Town's responsibility to review the certificates for accuracy, and make copies available to any inquirer.

If the Town of Parma decides to apply for the CRS, the following activities should be reviewed:

1. The community must maintain completed FEMA Elevation Certificates showing the "finished construction" elevations for all buildings constructed or substantially improved in the SFHA during the period credited.
2. If the building was floodproofed, a FEMA Floodproofing Certificate is needed instead of an Elevation Certificate. Other certificates may be needed in coastal high hazard areas and for floodproofed residential basements.

3. The community must review the certificates to ensure that they are complete and that the information is correct.
4. The community must make copies of Elevation Certificates readily available to anyone upon request. If a community receives credit for having Elevation Certificates from before it applied to the CRS, it must be able to retrieve those certificates, including those from projects whose permit files may have been archived or discarded.

Activity 360 (Flood Protection Assistance)

Both the Supervisor and Highway Superintendent respond to complaints and inspect flooding and drainage problems. In order to achieve maximum credit points for providing flood protection advice and assistance, the Town of Parma should review the following criteria:

360 ELEMENTS Maximum credit: 110 points	Property protection advice (PPA): Up to 25 points for providing one-on-one advice about property protection. An additional 15 points are provided if the assistance program is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).
	Protection advice provided after a site visit (PPV): Up to 30 points if the property protection advisor makes a site visit before providing the advice. An additional 15 points are provided if the site visit procedures are part of a Program for Public Information credited under Activity 330 (Outreach Projects).
	Financial assistance advice (FAA): 10 points for providing advice on financial assistance programs that may be available. An additional 5 points are provided if the financial assistance advisory service is part of a Program for Public Information credited under Activity 330 (Outreach Projects).
	Advisor training (TNG): 10 points if the person providing the advice has graduated from the EMI courses on retrofitting or grants programs.

Activity 450 (Stormwater Management)

Twenty-five municipalities are regulated as MS4s in Monroe County. The Town of Parma is a MS4 and therefore required to establish local control of stormwater impacts during and after construction and provide enforcement against illicit discharges. The Town has adopted a stand-alone local law for

stormwater management based on the model prepared by the Stormwater Coalition of Monroe County (SCMC). Established in 2000, the SCMC provides a forum for regulated MS4s to come together and comply with the federal stormwater regulations and improve water quality in a cost-effective manner. Chapter 128: Stormwater Management was adopted by the Town Board in 2008 and contains the following sections:

- Article I. Construction Stormwater Pollution Prevention and Erosion and Sediment Control
- Article II. Postconstruction Stormwater Pollution Prevention and Erosion and Sediment Control
- Article III. Illicit Discharges and Connections

This local law may provide a number of credit points in the following categories:

450 ELEMENTS	Stormwater management regulations (SMR): Up to 380 points for regulating development on a case-by-case basis to ensure that the peak flow of stormwater runoff from each site will not exceed the predevelopment runoff.
Maximum credit: 755 points	Watershed master plan (WMP): Up to 315 points for regulating development according to a watershed management master plan. WMP is the total of eight sub-elements.
	Erosion and sedimentation control regulations (ESC): Up to 40 points for regulations to minimize erosion from land disturbed due to construction or farming.
	Water quality regulations (WQ): 20 points for regulations that improve the quality of stormwater runoff.

Activity 510 (Floodplain Management Planning)

The Monroe County Department of Public Safety/Office of Emergency Management (OEM) has recently completed a hazard mitigation plan (HMP) for Monroe County and its participating municipalities. This plan will update the Monroe County Pre-Disaster Hazard Mitigation Plan approved by FEMA in 2011. In order to be eligible for post-disaster mitigation funding from FEMA, HMPs must be updated every five years.

HMPs that are accepted by FEMA will receive some credit under Activity 510. The CRS requirements are more stringent than the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), against which FEMA judges an HMP. For instance, in order to receive CRS credit points, all Planning Committee meetings must be publicly advertised and open to the public. A plan review crosswalk based on Activity 510 is provided as Appendix G in the Monroe County HMP. This crosswalk identifies compliance with each of the 10 CRS planning steps, where each element is addressed in the plan, and credit points for each step the county may request under CRS Activity 510. This crosswalk was prepared as a documentation aid in meeting the CRS documentation requirements specified in the *2013 CRS Coordinator's Manual*. Final verification of all verified credit for this activity will be based on the technical review process established by FEMA and the CRS verification procedures. According to the Project Website, the Monroe County HMP will be worth approximately 300 CRS points for any jurisdiction that fully participated in the HMP update and participates in the CRS Program.

Monroe County invited all jurisdictions in the county to join in the update of the plan. To date, all municipalities have participated in the 2016 plan update process. A Planning Committee, comprised of Monroe County personnel and representatives from the participating municipalities and private sector, was organized to review the planning process, provide a foundation for future requests for information to be obtained from the municipalities and other stakeholders, and to ensure meetings had a structured agenda. The planning process also involved the public through meetings and other public information activities to encourage input. The governing body of the Town of Parma must adopt Monroe County's updated HMP in order to receive multi-hazard mitigation plan credit.

This multi-jurisdictional plan may provide a number of credit points in the following categories:

510 ELEMENTS	Floodplain management planning (FMP): 382 points for a communitywide floodplain management plan that follows a 10-step planning process.
Maximum credit:	Repetitive loss area analysis (RLAA): 140 points for a detailed mitigation plan for a repetitive loss area.
622 points	Natural floodplain functions plan (NFP): 100 points for adopting plans that protect one or more natural functions within the community's floodplain.

The Town of Parma also has an *Agricultural & Farmland Protection Plan* (adopted April 6, 2009). This plan may achieve NFP credit points because it utilizes GIS software and data to identify and prioritize prime farmland using the following criteria:

1. Viability for agricultural production (e.g., soil suitability, location within County Agricultural District);
2. Development pressure (e.g., availability of public water and/or sewer, location near Village of Hilton or Town of Greece); and
3. Buffers environmental resources (e.g., contains or adjoins Class 1, 2, or 3 wetlands, within the Salmon Creek watershed, contains federally designated wetlands, within designated flood hazard zone).

Activity 540 (Drainage System Maintenance)

As stated earlier, the Town of Parma is required to comply with the Stormwater MS4 Permit. One of the six MCMs is Pollution Prevention/Good Housekeeping. MCM 6 requires that small MS4 operators examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that:

- (1) collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and
- (2) results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

For the CRS program, Activity 540 is broken down into the following components that the Town of Parma may achieve credit points:

540 ELEMENTS

Maximum
credit:
570 points

Channel debris removal (CDR): Up to 200 points for inspecting public and private drainage systems and removing debris as appropriate.

Problem site maintenance (PSM): Up to 50 points for paying special attention to known problem sites, such as those needing more frequent inspections.

Capital improvement program (CIP): Up to 70 points for having a capital improvement program that corrects drainage problems.

Stream dumping regulations (SDR): Up to 30 points if the community has and publicizes regulations prohibiting dumping in streams and ditches.

Storage basin maintenance (SBM): Up to 120 points for annually inspecting public and private storage basins and performing the required maintenance.

Coastal erosion protection maintenance (EPM): Up to 100 points for maintaining erosion protection programs in communities with coastal erosion-prone areas

In order to maximize credit points, the Town of Parma should review the following criteria:

1. Have a program to inspect and maintain drainage facilities, problem sites, and storage basins. Inspections must be conducted:
 - (a) At least once each year,
 - (b) Upon receiving a complaint, and
 - (c) After each major storm.Action must be taken when an inspection reveals a need for maintenance or cleaning.
2. Have a map of the community's drainage maintenance area with the conveyance system delineated and its components (structures and segments) labeled. The problem sites and location of all public and private storage basins must also be mapped.
3. Provide a complete inventory of conveyance system components, problem sites, and storage basins within its jurisdiction.

The key to Activity 540 is documentation: procedures for inspection and maintenance must be in the form of written procedures or guidelines, and all the inspection and maintenance activities must be recorded and the records must be maintained until the next verification visit.

Opportunities

Activity 320 (Map Information Service)

The Town of Parma's Building Department Secretary and Building and Development Coordinator currently answers flood-related questions from the public. The Planning Board also provides comments through its Development Regulations and subdivision procedures (Article III. Procedures, Chapter 130: Subdivision of Land).

The Town of Parma could expand upon its existing services and achieve more credit points for providing inquirers with information about local flood hazards and flood-prone areas by:

320 ELEMENTS

**Maximum
credit:
90 points**

Basic FIRM information (MI1): 30 points for providing basic information found on a FIRM that is needed to write a flood insurance policy.

Additional FIRM information (MI2): 20 points for providing information that is shown on most FIRMs, such as protected coastal barriers, floodways, or lines demarcating wave action.

Problems not shown on the FIRM (MI3): Up to 20 points for providing information about flood problems other than those shown on the FIRM.

Flood depth data (MI4): Up to 20 points for providing information about flood depths.

Special flood-related hazards (MI5): Up to 20 points for providing information about special flood-related hazards, such as erosion, ice jams, or tsunamis.

Historical flood information (MI6): Up to 20 points for providing information about past flooding at or near the site in question.

Natural floodplain functions (MI7): Up to 20 points for providing information about areas that should be protected because of their natural floodplain functions.

The Town should remember that in order to receive credit points for Activity 320, it must be able to:

- Provide information from the FIRM needed to write a flood insurance policy,
- The map information service must be able to locate a property based on a street address,
- The information must be volunteered when there is an inquiry,
- The service must include an opportunity for personal contact,
- The inquiry must be responded to within a reasonable amount of time,
- The service must be publicized at least once a year (see page 320-4 of the *2013 CRS Coordinator's Manual*)
- The maps used must be kept updated at least annually to reflect new studies, subdivisions, annexations, flood insurance restudies, map revisions, and map amendments,
- The community must maintain copies of earlier FIRMs that have been in effect since 1999, and
- Records of the service must be kept and provided for credit documentation.

Consult the *2013 CRS Coordinator's Manual* for more information.

Activity 330 (Outreach Projects)

As stated earlier, the Town of Parma participates with the SCMC. The Coalition implements a wide range of projects and programs including public education; training for municipal employees and the land development community; demonstrations of practices that reduce polluted runoff from developed land; technical assistance with permits and erosion control; investigations of stormwater outfalls for indicators of illegal discharges; assessments of municipal facilities for opportunities to prevent pollution; and a Stormwater Master Plan for Monroe County to identify needed infrastructure. The SCMC provides a website (<http://www2.monroecounty.gov/des-stormwater-coalition>) with several education resources and documents:

- Make Your Home the Solution to Stormwater Pollution
- Stormwater Fish Door Hanger
- Lawn Care and Landscaping...How to Protect Water Quality
- Pools, Fountains, and Spas....How to Protect Water Quality
- Monroe County Storm Drain Marking Program

Two of the six MCMs involve informing the public about the impacts of polluted stormwater runoff and providing opportunities to participate in the stormwater management program. MCM 1 (Public Education and Outreach) and MCM 2 (Public Participation/Involvement) correspond with the following Public Information Activities of the CRS program:

- 310 (Elevation Certificates)
- 320 (Map Information Service)
- 330 (Outreach Projects)

- 340 (Hazard Disclosure)
- 350 (Flood Protection Information)
- 360 (Flood Protection Assistance)
- 370 (Flood Insurance Promotion)

Activity 330 has six CRS priority topics for outreach projects:

1. Know your flood hazard.
2. Insure your property for your flood hazard.
3. Protect people from the hazard.
4. Protect your property from the hazard.
5. Build responsibly.
6. Protect natural floodplain functions.

Examples of annual general outreach projects that could accomplish both stormwater pollution and flood protection information include:

- Materials mailed to residents and/or businesses;
- Newspaper supplements and articles;
- Newsletter articles;
- Signs such as billboards, high water mark signs, or stencils at storm drain inlets;
- Radio and television ads or public service announcements;
- A staffed booth or display at public functions or shopping malls;
- Presentations to homeowners' associations, civic groups, or business associations; and
- Local television shows.

By taking advantage of the education and outreach activities developed and facilitated by the SCMC, the Town of Parma could expand upon its existing actions and achieve credit points for the CRS in the following ways:

330 ELEMENTS

Maximum
credit:
350 points

Outreach projects (OP): Up to 200 points for designing and carrying out public outreach projects. Credits for individual projects may be increased if the community has a Program for Public Information (PPI).

Flood response preparations (FRP): Up to 50 points for having a preflood plan for public information activities ready for the next flood. Credits for individual projects may be increased by the PPI multiplier.

Program for Public Information (PPI): Up to 80 points added to OP credits and up to 20 points added to FRP credits, for projects that are designed and implemented as part of an overall public information program.

Stakeholder delivery (STK): Up to 50 points added to OP credits for having information disseminated by people or groups from outside the local government.

Activity 340 (Hazard Disclosure)

The Town of Parma states that real estate agents do advise potential purchasers if a property is located in a SFHA. Credit for Disclosure of the flood hazard (DFH) relies on real estate agents informing a potential purchaser whether the property is located in an area that is at high risk for flooding.

The best way to implement this activity is with written notification. Written notification provides the purchaser with the correct information and provides documentation for the real estate agent and the ISO/CRS Specialist. Notations can be provided on property summary sheets, offer-to-purchase forms, Multiple Listing Service (MLS) forms, or other media. The most common approach is to have a box on the MLS form.

The Town of Parma could achieve additional credit points for hazard disclosure by:

340 ELEMENTS

Maximum
credit:
80 points

Disclosure of the flood hazard (DFH): Up to 25 points if real estate agents notify those interested in purchasing properties located in SFHA about the flood hazard and the flood insurance purchase requirement. An additional 10 points are provided if the disclosure program is part of a Program for Public Information credited under Activity 330 (Outreach Projects).

Other disclosure requirements (ODR): Up to 5 points for each other method of flood hazard disclosure required by law, up to a maximum of 25 points.

Real estate agents' brochure (REB): Up to 8 points if real estate agents are providing brochures or handouts that advise potential buyers to investigate the flood hazard for a property. An additional 4 points are provided if the disclosure program is part of a Program for Public Information credited in Activity 330 (Outreach Projects).

Disclosure of other hazards (DOH): Up to 8 points if the notification to prospective buyers includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands.

Activity 350 (Flood Protection Information)

The Town of Parma has a community website (<http://parmany.org/index.php>) and a local library, the Parma Public Library. The SCMC website also provides various stormwater-related resources and documents, and links to "Larry the H2O Hero." H2OHero.org is a public outreach campaign that educates people about what they can do to help reduce stormwater pollution. By providing information about flood protection, additional credit points may be obtained if the SCMC website is part of a Program for Public Information (PPI) credited under Activity 330. According to the *2013 CRS Coordinator's Manual*, a community can receive credit for a county or regional website, provided that there is a link from the community's website and that the information is locally pertinent.

The Town could expand upon its existing ways of informing the public about flood protection and achieve additional credit points by:

350 ELEMENTS

Flood protection library (LIB): 10 points for having 10 FEMA publications on flood protection topics housed in the public library.

Maximum
credit:
125 points

Locally pertinent documents (LPD): Up to 10 points for having additional references on the community's flood problem or local or state floodplain management programs housed in the public library.

Flood protection website (WEB): Up to 76 points for providing flood protection information via the community's website. An additional 29 points are provided if the website is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).

Activity 420 (Open Space Preservation)

Up until January, 2017, the Town of Parma had a Conservation Advisory Board that reviewed all environmental issues and concerns regarding site plan approval and subdivision appraisal. They also provided a focus for local environmental overview. The Town Board has said that future consideration could be made to hire someone to perform those tasks and be paid on a per diem basis.¹⁵

Additionally, the Town has local regulations that provide open space incentives and low-density zoning. For example, through its zoning authority, the Town of Parma has six Environmental Protection Overlay Districts (EPODs) that are displayed on the "Town of Parma EPOD Maps" and include the Environmental Atlas maps prepared by the Monroe County Environmental Management Council (EMC). EPODs were created as part of Chapter 16: Zoning, adopted by the Town Board on March 17, 1998. The six districts are:

- EPOD (1) Large Wetland Protection District
- EPOD (2) Small Wetland Protection District
- EPOD (3) Floodplain Protection District
- EPOD (4) Stream Corridor Protection District
- EPOD (5) Woodlot Protection District
- EPOD (6) Lakefront Coastal Erosion Hazard District

¹⁵ Parma Town Board meeting held on Tuesday, January 3, 2017, accessed April 5, 2017, <http://ecode360.com/documents/PA0391/public/314596734.pdf>.

Cluster development is recognized in § 165-53 EPOD (5) Woodlot Protection District, (E) Specific standards. (4), “In planning development sites, applicants shall preserve as much mature vegetation as possible. The use of clustering of buildings to avoid mature wooded areas shall be encouraged wherever practical, as well as the planting of replacement vegetation to mitigate the unavoidable uses of woodlots.” Open space incentives may also be achieved in § 165-14. Incentive zoning, “The purpose of these provisions is to offer incentives to applicants who provide amenities that assist the Town in achieving specific physical, cultural and social policies described in the Town of Parma Comprehensive Plan and as may be further supplemented by local laws and ordinances adopted by the Town Board.”

The following incentives may be granted by the Town Board to the applicant on a specific site:

1. Changes in residential/nonresidential unit density.
2. Changes in lot coverage.
3. Changes in setbacks or height.
4. Changes in floor area.
5. Other changes to specific regulations set forth in Chapter 130, Subdivision of Land, and this chapter.

Farms (all buildings) are required to have a minimum lot size of five-acres in the following zoning districts (Article II. General District Provisions; Incentive Zoning), which may meet the definition of “low-density zoning:”

- Agricultural Conservation (AC)
- Rural Residential (RR)
- Medium Density Residential (MD)
- High Density Residential (HD)
- Waterfront Residential (WF)
- Restricted Business (RB)
- General Commercial (GC)
- Highway Commercial (HC)
- Light Industrial (LI)

The Town of Parma could expand upon its open space preservation efforts and achieve additional credit points by:

420 ELEMENTS

Maximum
credit:
2,020 points

Open space preservation (OSP): Up to 1,450 points for keeping land vacant through ownership or regulations.

Deed restrictions (DR): Up to 50 points extra credit for legal restrictions that ensure that parcels credited for OPS will never be developed.

Natural functions open space (NFOS): Up to 350 points extra credit for OPS-credited parcels that are preserved in or restored to their natural state.

Special flood-related hazards open space (SHOS): Up to 50 points if the OPS-credited parcels are subject to one of the special flood-related hazards or if areas of special flood-related hazard are covered by low density zoning regulations.

Open space incentives (OSI): Up to 250 points for local requirements and incentives that keep flood-prone portions of new development open.

Low-density zoning (LZ): Up to 600 points for zoning districts that require lot sizes of 5 acres or larger.

Natural shoreline protection (NSP): Up to 120 points for programs that protect natural channels and shorelines.

Conservation Advisory Councils (CACs) and Conservation Boards are established by a municipality under Article 12-F Section 239-x of NYS General Municipal Law to advise on the development, management, and protection of local natural resources. CACs and Conservation Boards advise Planning Boards and Zoning Boards of Appeals with its open area planning and the preservation of natural and scenic resources. CACs and Conservation Boards can contribute to preserving the most valuable natural areas in their communities by administering an official open areas inventory and map.

In their municipal roles, CACs and Conservation Boards identify and collect needed data regarding the community's natural resources, open areas, and historic and scenic assets; help prioritize the importance of open areas; provide recommendations for protecting open areas including acquisition, cluster development, overlay zoning, and critical environmental area designation; review development proposals; conduct site visits; deliver education programs; and implement stewardship projects.

A task for the Conservation Advisory Board, should it be recharged, or for a paid worker is to inventory open space parcels so that the percentage of the community's SFHA that is kept as a park or other publicly preserved open space can be determined.

Public land, such as state and local parks and easements, can qualify if the owning agency states in writing that the lands are intended to be kept as open space. Examples of such creditable open space parcels include, but are not limited to:

- City and county parks and forest preserves,
- State parks and state forests (there is no open space credit for federal lands),
- Publicly owned beaches or natural areas,
- School playing fields, and
- Floodplain easements dedicated to the community by developers.

Private wildlife or nature preserves that are maintained for open space purposes can qualify if the owner states in writing that they are intended to be kept as open space. Examples of such creditable open space parcels include, but are not limited to:

- Church retreats,
- Hunting club lands,
- Golf courses owned by nonprofit associations,
- Audubon Society preserves, and
- Boy Scout or Girl Scout camping areas.

A parcel set aside by a developer as a temporary "preserve" until the area develops is not considered preserved open space. Consult the *2013 CRS Coordinator's Manual* for more information.

Activity 440 (Flood Data Maintenance)

While the Town of Parma has old FIRMs on hand and readily available for inquirers to access them, it relies on Monroe County for GIS services. Monroe County started investing in digitized mapping in 1998 when the Department of Planning and Community Development began mapping environmental features, the Environmental Services Department mapped sewers, and the Office of Real Property Tax Service (Finance) learned the benefits of a GIS for the maintenance of tax parcels. In January of 2000, many of the County's GIS functions were consolidated with the formal creation of the GIS Services Division. The Division was formed to promote and educate County departments and local governments on GIS and to plan and implement its use throughout Monroe County. While Monroe County GIS does

provide an Interactive Environmental Map and GIS Property Viewer, it does not have a master parcel record system with FIRM data.

The GIS Services Division may be able to expand upon its digitized mapping and parcel system and achieve credit points for Monroe County communities interested in applying to the CRS by:

**440
ELEMENTS**

**Maximum
credit:
222 points**

Additional map data (AMD): Up to 160 points for implementing digital or paper systems that improve access, quality, and/or ease of updating flood data within the community.

FIRM maintenance (FM): Up to 15 points for maintaining copies of all FIRMs that have been issued for the community.

Benchmark maintenance (BMM): Up to 27 points for a program that maintains benchmarks so surveyors can find them and can depend on them to be accurate.

Erosion data maintenance (EDM): Up to 20 points for maintaining coastal erosion data.

Activity 610 (Flood Warning and Response)

The Town of Parma does have an emergency operations plan entitled the *Hilton-Parma Community Disaster Plan* (2001). It could be updated to address the community's flood problems. To qualify as a creditable activity, the flood warning and response plan must:

- a. Describe the methods and warning devices used to disseminate emergency warnings to the general public,
- b. Include specific flood response actions that are taken at the different flood levels, and
- c. Be adopted by the community's governing body or by an office that has been delegated approval authority by the community's governing body. If the plan is prepared at the county level, it must be adopted by the individual communities seeking CRS credit for it.

Monroe County does have a *Comprehensive Emergency Management Plan*, which was approved August 1981 and revised June 10, 2008.

Monroe County is also officially designated as a StormReady community. StormReady is a nationwide community preparedness program administered by the National Weather Service (NWS) that uses a grassroots approach to help communities upgrade its emergency preparedness infrastructure. The program encourages communities to improve local operations for weather emergencies by providing emergency managers with proactive strategies, such as ensuring that equipment is in place and updated, contact information is accurate, and allowing for technological advances in communications and warning dissemination. Monroe County may be able to work with the Town of Parma to help upgrade its emergency preparedness operations.

The Town of Parma could coordinate with Monroe County OEM and develop a local flood warning and response program for additional credit points by:

610 ELEMENTS

Maximum
credit:
395 points

Flood threat recognition system (FTR): Up to 75 points for a system that predicts flood elevations and arrival times at specific locations within the community.

Emergency warning dissemination (EWD): Up to 75 points for disseminating flood warnings to the public.

Flood response operations (FRO): Up to 115 points for implementation of specific tasks to reduce or prevent threats to health, safety, and property.

Critical facilities planning (CFP): Up to 75 points for coordinating flood warning and response activities with operators of critical facilities.

StormReady community (SRC): 25 points for designation by the NWS as a StormReady community.

TsunamiReady community (TRC): 30 points for designation by the NWS as a TsunamiReady community.

DRAFT

Town of Ontario, Wayne County

Census 2010 Total Population: 10,136

Policies In-force (as of 01/31/2017): 34

CRS Quick Check	Now	Could
Total	537	347
Total "Now" + "Could"		884
Potential CRS Class	9	9

Strengths	Opportunities
Activity 360 (Flood Protection Assistance)	Activity 310 (Elevation Certificates)
Activity 420 (Open Space Preservation)	Activity 320 (Map Information Service)
Activity 440 (Flood Data Maintenance)	Activity 330 (Outreach Projects)
Activity 450 (Stormwater Management)	Activity 340 (Hazard Disclosure)
Activity 510 (Floodplain Management Planning)	Activity 350 (Flood Protection Information)
Activity 540 (Drainage System Maintenance)	Activity 610 (Flood Warning and Response)

Strengths

Activity 360 (Flood Protection Assistance)

The Town of Ontario has a Watershed Management Council that provides guidance and assistance to residents with drainage concerns. The Watershed Management Council was formed in 1993 as per Chapter 147: Watershed Management Control (adopted by the Town Board by L.L. No. 1-1993). A maintenance schedule has been established to keep the five watersheds operating to capacity, with work started on clearing the tributaries off the main creeks.

Wayne County Soil and Water Conservation District (SWCD) also provides technical assistance, facilitated by DEC requesting work within a specific area of a stream or via landowner requests. Wayne County SWCD also provides assistance to landowners in the form of property protection and financial assistance advice.

In order to achieve maximum credit points for providing flood protection advice and assistance, the Town of Ontario should review the following criteria:

360 ELEMENTS

Maximum
credit:
110 points

Property protection advice (PPA): Up to 25 points for providing one-on-one advice about property protection. An additional 15 points are provided if the assistance program is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).

Protection advice provided after a site visit (PPV): Up to 30 points if the property protection advisor makes a site visit before providing the advice. An additional 15 points are provided if the site visit procedures are part of a Program for Public Information credited under Activity 330 (Outreach Projects).

Financial assistance advice (FAA): 10 points for providing advice on financial assistance programs that may be available. An additional 5 points are provided if the financial assistance advisory service is part of a Program for Public Information credited under Activity 330 (Outreach Projects).

Advisor training (TNG): 10 points if the person providing the advice has graduated from the EMI courses on retrofitting or grants programs.

Activity 420 (Open Space Preservation)

The Town of Ontario has several local regulations that provide Open space incentives (OSI):

- Chapter 150: Zoning, Article V. Planned Unit Development
- Chapter 150: Zoning, Article IV. Zone District Regulations
§ 150-28. Incentive zoning.
- Chapter 150: Zoning, Article VIII. Special Provisions Applicable in All Districts
§ 150-49. Wetlands.
- Chapter 147. Watershed Management Control
§ 147-5. Design of drainage system.
- Chapter A154: Land Development Regulations and Public Works Requirements,
Part 1. Rules and Regulations,
Article III. Development Requirements
§ A154-41. Cluster development.
Article IV. Site Improvements
§ A154-64. Open space.

For example, § A154-64. Open space states that, “At least 30% of the lot area to be developed shall remain open and unused. This open area may include areas for landscaping, stormwater retention or detention, in-ground septic systems, underground utilities, screening and fencing. The open area shall

not be paved or used for parking, storage, buildings or accessory buildings, nor shall it include wetlands, steep slopes or other environmentally sensitive areas.”

Cluster development is recognized in § A154-41, “The approval of any cluster subdivision development by the Planning Board shall be subject to the conditions set forth in Town Law § 278 and in any other local laws or ordinances within the Town. The purpose of cluster development shall be to enable and encourage flexibility of design and development of land in such a manner as to preserve the natural and scenic qualities of open lands.”

The Town of Ontario can receive OSI credit for regulations that encourage developers to keep the floodplain open when a site is developed, which can also benefit farmland preservation and the protection of sensitive areas. Once a parcel is appropriately deeded, the community is then eligible to receive credit under Open space preservation (OSP) and/or Deed restrictions (DR) for that site.

The Town of Ontario could expand upon its open space preservation efforts and achieve additional credit points by:

420 ELEMENTS

Maximum
credit:
2,020 points

Open space preservation (OSP): Up to 1,450 points for keeping land vacant through ownership or regulations.

Deed restrictions (DR): Up to 50 points extra credit for legal restrictions that ensure that parcels credited for OPS will never be developed.

Natural functions open space (NFOS): Up to 350 points extra credit for OPS-credited parcels that are preserved in or restored to their natural state.

Special flood-related hazards open space (SHOS): Up to 50 points if the OPS-credited parcels are subject to one of the special flood-related hazards or if areas of special flood-related hazard are covered by low density zoning regulations.

Open space incentives (OSI): Up to 250 points for local requirements and incentives that keep flood-prone portions of new development open.

Low-density zoning (LZ): Up to 600 points for zoning districts that require lot sizes of 5 acres or larger.

Natural shoreline protection (NSP): Up to 120 points for programs that protect natural channels and shorelines.

Activity 440 (Flood Data Maintenance)

While the data is about seven years old, the Town of Ontario provides property information through an online GIS map with layers for FEMA flood zones, State and Federal wetlands, streams and waterbodies, and other overlays (<http://gis.sdgny.com/townofontariogis/>). Building footprints are also available, updated recently in 2013.

The Town of Ontario may want to consider updating its data sets, and expanding upon its digitized mapping and parcel system to achieve more CRS credit points by:

440 ELEMENTS

Maximum
credit:
222 points

Additional map data (AMD): Up to 160 points for implementing digital or paper systems that improve access, quality, and/or ease of updating flood data within the community.

FIRM maintenance (FM): Up to 15 points for maintaining copies of all FIRMs that have been issued for the community.

Benchmark maintenance (BMM): Up to 27 points for a program that maintains benchmarks so surveyors can find them and can depend on them to be accurate.

Erosion data maintenance (EDM): Up to 20 points for maintaining coastal erosion data.

Activity 450 (Stormwater Management)

Five municipalities are regulated as MS4s in Wayne County (including Wayne County Highway Department). The Town of Ontario is a MS4 and therefore required to establish local control of stormwater impacts during and after construction and provide enforcement against illicit discharges. The Town has adopted two stand-alone local laws for stormwater management based on dialogue through the Ontario-Wayne Stormwater Coalition (OWSC) and the Sample Local Law for Stormwater Management and Erosion & Sediment Control prepared by the DEC. Established in 2005, the OWSC provides a forum for the regulated MS4s in Ontario and Wayne Counties to come together and comply with the federal stormwater regulations and improve water quality in a cost-effective manner. Chapter 116: Stormwater Management and Chapter 118: Stormwater Pollution was adopted by the Town Board in 2007.

The two local laws may provide a number of credit points in the following categories:

**450
ELEMENTS**

**Maximum
credit:
755 points**

Stormwater management regulations (SMR): Up to 380 points for regulating development on a case-by-case basis to ensure that the peak flow of stormwater runoff from each site will not exceed the predevelopment runoff.

Watershed master plan (WMP): Up to 315 points for regulating development according to a watershed management master plan. WMP is the total of eight sub-elements.

Erosion and sedimentation control regulations (ESC): Up to 40 points for regulations to minimize erosion from land disturbed due to construction or farming.

Water quality regulations (WQ): 20 points for regulations that improve the quality of stormwater runoff.

Activity 510 (Floodplain Management Planning)

The update to the Wayne County Multi-Jurisdictional All-Hazard Mitigation Plan (2007) was prepared by G/FLRPC under the direction of the Wayne County All-Hazard Mitigation Plan Update Committee and Wayne County Office of Emergency Management in May, 2014. In order to be eligible for post-disaster mitigation funding from FEMA, HMPs must be updated every five years.

HMPs that are accepted by FEMA will receive some credit under Activity 510. The CRS requirements are more stringent than the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), against which FEMA judges an HMP. For instance, in order to receive CRS credit points, all Planning Committee meetings must be publicly advertised and open to the public.

The governing body of the Town of Ontario adopted the Wayne County Multi-Jurisdictional All-Hazard Mitigation Plan on September 16, 2014 (expires June 20, 2019). This multi-jurisdictional plan may provide a number of credit points in the following categories:

510 ELEMENTS	Floodplain management planning (FMP): 382 points for a communitywide floodplain management plan that follows a 10-step planning process.
Maximum credit: 622 points	Repetitive loss area analysis (RLAA): 140 points for a detailed mitigation plan for a repetitive loss area.
	Natural floodplain functions plan (NFP): 100 points for adopting plans that protect one or more natural functions within the community's floodplain.

Activity 540 (Drainage System Maintenance)

As stated earlier, the Town of Ontario is required to comply with the Stormwater MS4 Permit. One of the six MCMs is Pollution Prevention/Good Housekeeping. MCM 6 requires that small MS4 operators examine and subsequently alter their own actions to help ensure a reduction in the amount and type of pollution that:

- collects on streets, parking lots, open spaces, and storage and vehicle maintenance areas and is discharged into local waterways; and
- results from actions such as environmentally damaging land development and flood management practices or poor maintenance of storm sewer systems.

Since 2008, the Wayne County SWCD has been assessing local water quality within six of the eight priority watersheds as outlined by the Wayne County Water Quality Coordinating Committee. Wayne County SWCD provides drainage assistance if requested by the municipality. Five towns are currently undertaking that connective work. There is also an Agricultural Drainage Program that maintains 67 drainage projects across Wayne County to aid specific areas with flow challenges due to topography, soil type, and weather patterns. Wayne County SWCD provides technical assistance if requested by a landowner or municipality, and sometimes specialty projects may result. An overview of the Agricultural Drainage Program with reporting since 2011 is available on the Wayne County SWCD website (<http://www.waynecountynysoilandwater.org/>).¹⁶

¹⁶ District Manager Lindsey M. Gerstenslager, Wayne County Soil and Water Conservation District, e-mail message to author, September 30, 2016.

For the CRS program, Activity 540 is broken down into the following components that the Town of Ontario may achieve credit points:

540 ELEMENTS	Channel debris removal (CDR): Up to 200 points for inspecting public and private drainage systems and removing debris as appropriate.
Maximum credit: 570 points	Problem site maintenance (PSM): Up to 50 points for paying special attention to known problem sites, such as those needing more frequent inspections.
	Capital improvement program (CIP): Up to 70 points for having a capital improvement program that corrects drainage problems.
	Stream dumping regulations (SDR): Up to 30 points if the community has and publicizes regulations prohibiting dumping in streams and ditches.
	Storage basin maintenance (SBM): Up to 120 points for annually inspecting public and private storage basins and performing the required maintenance.
	Coastal erosion protection maintenance (EPM): Up to 100 points for maintaining erosion protection programs in communities with coastalerosion-prone areas

In order to maximize credit points, the Town of Ontario should review the following criteria:

1. Have a program to inspect and maintain drainage facilities, problem sites, and storage basins. Inspections must be conducted:
 - (a) At least once each year,
 - (b) Upon receiving a complaint, and
 - (c) After each major storm.
 - (d) Action must be taken when an inspection reveals a need for maintenance or cleaning.
2. Have a map of the community's drainage maintenance area with the conveyance system delineated and its components (structures and segments) labeled. The problem sites and location of all public and private storage basins must also be mapped.
3. Provide a complete inventory of conveyance system components, problem sites, and storage basins within its jurisdiction.

The key to Activity 540 is documentation: procedures for inspection and maintenance must be in the form of written procedures or guidelines, and all the inspection and maintenance activities must be recorded and the records must be maintained until the next verification visit. A link to the "Town Wide Drainage District 5 Year Plan" (2013 – 2017) is provided on the Town website. This document could be

considered a capital improvements program for drainage improvements. It includes the 5 major creeks in the Town of Ontario, and all major tributaries.

DRAFT

Opportunities

Activity 310 (Elevation Certificates)

FEMA Elevation Certificates on all new buildings and substantial improvements in the SFHA is mandatory for CRS classification. Almost all buildings constructed to meet NFIP criteria are raised so that the lowest floor is at or above the base flood elevation (plus two feet in New York State, beginning 2007). The appropriate record that shows that the building meets the code requirement is the FEMA Elevation Certificate. The Town of Ontario has not been maintaining Elevation Certificates on all buildings constructed, substantially improved, or placed in the SFHA. It is the Town's responsibility to review the certificates for accuracy, and make copies available to any inquirer.

If the Town of Ontario decides to apply for the CRS, the following activities should be reviewed:

1. The community must maintain completed FEMA Elevation Certificates showing the "finished construction" elevations for all buildings constructed or substantially improved in the SFHA during the period credited.
2. If the building was floodproofed, a FEMA Floodproofing Certificate is needed instead of an Elevation Certificate. Other certificates may be needed in coastal high hazard areas and for floodproofed residential basements.
3. The community must review the certificates to ensure that they are complete and that the information is correct.
4. The community must make copies of Elevation Certificates readily available to anyone upon request. If a community receives credit for having Elevation Certificates from before it applied to the CRS, it must be able to retrieve those certificates, including those from projects whose permit files may have been archived or discarded.

Activity 320 (Map Information Service)

The Town of Ontario's Building Department currently answers flood-related questions from the public. The Planning Board also provides comments through its Land Development Regulations and site plan procedures (Chapter A154. Land Development Regulations and Public Works Requirements).

The Town of Ontario could expand upon its existing services and achieve more credit points for providing inquirers with information about local flood hazards and flood-prone areas by:

320 ELEMENTS

Maximum
credit:
90 points

Basic FIRM information (MI1): 30 points for providing basic information found on a FIRM that is needed to write a flood insurance policy.

Additional FIRM information (MI2): 20 points for providing information that is shown on most FIRMs, such as protected coastal barriers, floodways, or lines demarcating wave action.

Problems not shown on the FIRM (MI3): Up to 20 points for providing information about flood problems other than those shown on the FIRM.

Flood depth data (MI4): Up to 20 points for providing information about flood depths.

Special flood-related hazards (MI5): Up to 20 points for providing information about special flood-related hazards, such as erosion, ice jams, or tsunamis.

Historical flood information (MI6): Up to 20 points for providing information about past flooding at or near the site in question.

Natural floodplain functions (MI7): Up to 20 points for providing information about areas that should be protected because of their natural floodplain functions.

The Town should remember that in order to receive credit points for Activity 320, it must be able to:

- Provide information from the FIRM needed to write a flood insurance policy,
- The map information service must be able to locate a property based on a street address,
- The information must be volunteered when there is an inquiry,
- The service must include an opportunity for personal contact,
- The inquiry must be responded to within a reasonable amount of time,
- The service must be publicized at least once a year (see page 320-4 of the *2013 CRS Coordinator's Manual*)
- The maps used must be kept updated at least annually to reflect new studies, subdivisions, annexations, flood insurance restudies, map revisions, and map amendments,
- The community must maintain copies of earlier FIRMs that have been in effect since 1999, and
- Records of the service must be kept and provided for credit documentation.

Consult the *2013 CRS Coordinator's Manual* for more information.

Activity 330 (Outreach Projects)

As stated earlier, the Town of Ontario participates with the OWSC. The OWSC meets on a monthly basis to discuss MS4 permit requirements; status of the Coalition's goals and measures taken to date; upcoming events; and prioritizes objectives to be accomplished. The OWSC provides a website (<http://www.owsc.org/>) and a quarterly newsletter as forms of communication to increase awareness and motivate residents to take action.

The OWSC website serves as a source of information for stormwater management related topics/issues, local construction projects, and current events. There are links to information about the Coalition and its municipal representatives, MS4 permit requirements, the "6 Minimum Measures," minutes and agendas, and other resources. The OWSC helps to organize community events throughout the year in which SWPPP brochures, public education displays, multi-media training kits, and public information press packages are made available. The OWSC also sends out direct mailings to local residents and provides notification of stormwater and construction related training sessions for contractors, MS4 staff members, and the public to attend.

There are several brochures available for download on the OWSC website under Public Education and Outreach that although address the impacts of stormwater discharges on local waterbodies and the steps that can be taken to reduce stormwater pollution, could be revised to include the protection of natural floodplain functions:

- The Homeowner & MS4
- Restaurant/Food Service & MS4
- Lawn Maintenance Facts & MS4
- Automotive Repair & MS4

Two of the six MCMs for MS4 permit compliance involve informing the public about the impacts of polluted stormwater runoff and providing opportunities to participate in the stormwater management program. MCM 1 (Public Education and Outreach) and MCM 2 (Public Participation/Involvement) correspond with the following Public Information Activities of the CRS program:

- 310 (Elevation Certificates)
- 320 (Map Information Service)
- 330 (Outreach Projects)
- 340 (Hazard Disclosure)
- 350 (Flood Protection Information)

- 360 (Flood Protection Assistance)
- 370 (Flood Insurance Promotion)

Activity 330 has six CRS priority topics for outreach projects:

1. Know your flood hazard.
2. Insure your property for your flood hazard.
3. Protect people from the hazard.
4. Protect your property from the hazard.
5. Build responsibly.
6. Protect natural floodplain functions.

Examples of annual general outreach projects include:

- Materials mailed to residents and/or businesses;
- Newspaper supplements and articles;
- Newsletter articles;
- Signs such as billboards, high water mark signs, or stencils at storm drain inlets;
- Radio and television ads or public service announcements;
- A staffed booth or display at public functions or shopping malls;
- Presentations to homeowners' associations, civic groups, or business associations; and
- Local television shows.

By taking advantage of the education and outreach activities developed and facilitated by the OWSC, the Town of Ontario could expand upon its existing actions and achieve credit points for the CRS in the following ways:

330 ELEMENTS

Maximum
credit:
350 points

Outreach projects (OP): Up to 200 points for designing and carrying out public outreach projects. Credits for individual projects may be increased if the community has a Program for Public Information (PPI).

Flood response preparations (FRP): Up to 50 points for having a preflood plan for public information activities ready for the next flood. Credits for individual projects may be increased by the PPI multiplier.

Program for Public Information (PPI): Up to 80 points added to OP credits and up to 20 points added to FRP credits, for projects that are designed and implemented as part of an overall public information program.

Stakeholder delivery (STK): Up to 50 points added to OP credits for having information disseminated by people or groups from outside the local government.

Activity 340 (Hazard Disclosure)

The Town of Ontario states that real estate agents do advise potential purchasers if a property is located in a SFHA. Credit for Disclosure of the flood hazard (DFH) relies on real estate agents informing a potential purchaser whether the property is located in an area that is at high risk for flooding.

The best way to implement this activity is with written notification. Written notification provides the purchaser with the correct information and provides documentation for the real estate agent and the ISO/CRS Specialist. Notations can be provided on property summary sheets, offer-to-purchase forms, Multiple Listing Service (MLS) forms, or other media. The most common approach is to have a box on the MLS form.

The Town of Ontario could achieve additional credit points for hazard disclosure by:

340 ELEMENTS

Maximum
credit:
80 points

Disclosure of the flood hazard (DFH): Up to 25 points if real estate agents notify those interested in purchasing properties located in SFHA about the flood hazard and the flood insurance purchase requirement. An additional 10 points are provided if the disclosure program is part of a Program for Public Information credited under Activity 330 (Outreach Projects).

Other disclosure requirements (ODR): Up to 5 points for each other method of flood hazard disclosure required by law, up to a maximum of 25 points.

Real estate agents' brochure (REB): Up to 8 points if real estate agents are providing brochures or handouts that advise potential buyers to investigate the flood hazard for a property. An additional 4 points are provided if the disclosure program is part of a Program for Public Information credited in Activity 330 (Outreach Projects).

Disclosure of other hazards (DOH): Up to 8 points if the notification to prospective buyers includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands.

Activity 350 (Flood Protection Information)

The Town of Ontario has a community website (<http://www.ontariotown.org/>) and the local library, the Ontario Public Library, shares the same building as Town offices. As mentioned earlier, the OWSC website is also available for use by the Town to share stormwater management information. By providing information about flood protection, additional credit points may be provided if the OWSC website is part of a Program for Public Information (PPI) credited under Activity 330. According to the *2013 CRS Coordinator's Manual*, a community can receive credit for a county or regional website, provided that there is a link from the community's website and that the information is locally pertinent.

The Town of Ontario could expand upon its existing ways of informing the public about flood protection and achieve additional credit points by:

350 ELEMENTS

Flood protection library (LIB): 10 points for having 10 FEMA publications on flood protection topics housed in the public library.

Maximum
credit:
125 points

Locally pertinent documents (LPD): Up to 10 points for having additional references on the community's flood problem or local or state floodplain management programs housed in the public library.

Flood protection website (WEB): Up to 76 points for providing flood protection information via the community's website. An additional 29 points are provided if the website is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).

Activity 610 (Flood Warning and Response)

Wayne County is officially designated as a StormReady community. StormReady is a nationwide community preparedness program administered by the National Weather Service (NWS) that uses a grassroots approach to help communities upgrade its emergency preparedness infrastructure. The program encourages communities to improve local operations for weather emergencies by providing emergency managers with proactive strategies, such as ensuring that equipment is in place and updated, contact information is accurate, and allowing for technological advances in communications and warning dissemination.

Wayne County may be able to work with the Town of Ontario to help upgrade its emergency preparedness operations for CRS credit points:

610 ELEMENTS

Maximum
credit:
395 points

Flood threat recognition system (FTR): Up to 75 points for a system that predicts flood elevations and arrival times at specific locations within the community.

Emergency warning dissemination (EWD): Up to 75 points for disseminating flood warnings to the public.

Flood response operations (FRO): Up to 115 points for implementation of specific tasks to reduce or prevent threats to health, safety, and property.

Critical facilities planning (CFP): Up to 75 points for coordinating flood warning and response activities with operators of critical facilities.

StormReady community (SRC): 25 points for designation by the NWS as a StormReady community.

TsunamiReady community (TRC): 30 points for designation by the NWS as a TsunamiReady community.

DRAFT

Town of Huron, Wayne County

Census 2010 Total Population: 2,118

Policies In-force (as of 01/31/2017): 21

CRS Quick Check	Now	Could
Total	594	490
Total "Now" + "Could"		1,084
Potential CRS Class	9	8

Strengths	Opportunities
Activity 310 (Elevation Certificates)	Activity 320 (Map Information Service)
Activity 420 (Open Space Preservation)	Activity 330 (Outreach Projects)
Activity 430 (Higher Regulatory Standards)	Activity 340 (Hazard Disclosure)
Activity 450 (Stormwater Management)	Activity 350 (Flood Protection Information)
Activity 510 (Floodplain Management Planning)	Activity 360 (Flood Protection Assistance)
	Activity 610 (Flood Warning and Response)

Strengths

Activity 310 (Elevation Certificates)

FEMA Elevation Certificates on all new buildings and substantial improvements in the SFHA is mandatory for CRS classification. Almost all buildings constructed to meet NFIP criteria are raised so that the lowest floor is at or above the base flood elevation (plus two feet in New York State, beginning 2007). The appropriate record that shows that the building meets the code requirement is the FEMA Elevation Certificate. The Town of Huron states that it maintains Elevation Certificates on all buildings constructed, substantially improved, or placed in the SFHA. It is the Town's responsibility to review the certificates for accuracy, and make copies available to any inquirer.

If the Town of Huron decides to apply for the CRS, the following activities should be reviewed:

1. The community must maintain completed FEMA Elevation Certificates showing the "finished construction" elevations for all buildings constructed or substantially improved in the SFHA during the period credited.
2. If the building was floodproofed, a FEMA Floodproofing Certificate is needed instead of an Elevation Certificate. Other certificates may be needed in coastal high hazard areas and for floodproofed residential basements.
3. The community must review the certificates to ensure that they are complete and that the information is correct.

4. The community must make copies of Elevation Certificates readily available to anyone upon request. If a community receives credit for having Elevation Certificates from before it applied to the CRS, it must be able to retrieve those certificates, including those from projects whose permit files may have been archived or discarded.

Activity 420 (Open Space Preservation)

The Town of Huron has a draft Local Waterfront Revitalization Program (LWRP) that provides a table summarizing the use of parcels in the Waterfront Revitalization Area (WRA):

	# Parcels	Areas (calculated)	Percent of Total WRA
Residential			
Year-round	493	1,188	15.4
Seasonal	532	211	2.7
Manufactured Home	25	68	0.9
Conservation	12	4,583	59.4
Recreation	NA	NA	NA
Business	13	87	1.1
Utilities	2	5	0.1
Vacant	364	514	6.7
			Total = 7,717

Conservation and recreation land uses are comprised primarily of the State-owned park and wildlife management areas, which cover approximately 3,750 acres or 16% of the Town. Much of these areas include freshwater wetlands and embayment areas in addition to dry land. CRS credit is given for areas in a regulated floodplain (e.g., 100-year flood zone) that are permanently preserved as open space. Using the GIS data developed for the LWRP, the acres of preserved open space within the flood hazard area have been determined:

				Preserved Open Space				
	Total Townwide	Water Area	Land Area	NYS Land	The Nature Conservancy	Portion of Lakeshore Marshes	Total Preserved	% of Total
100-year flood zone (detailed)	2,796.2	2,292.0	504.2	394.4	39.9	47.2	481.5	
100-year flood zone (not detailed)	2,378.9	49.5	2,329.4	1,380.5	5.5	0.0	1,386.0	
500-year flood zone	7.0	0.0	7.0	0.6	0.0	0.0	0.6	
Total =	5,182.1	2,341.5	2,840.6	1,775.5	45.4	47.2	1,868.1	65.8%
<i>Courtesy of LaBella Associates, D.P.C.</i>								

An intersection of the flood zones with the Town boundary (including Sodus Bay and Port Bay) was used, then the portion that overlaps with water subtracted. East Bay is a tax parcel owned by the DEC, so it was not counted as water. According to DEC's map data, a portion of Sodus Bay is in the Lake Shore Marshes Wildlife Management Area and is not part of any tax parcel. This land area was counted in a separate column.

Public land, such as state and local parks and easements, can qualify if the owning agency states in writing that the lands are intended to be kept as open space. Examples of such creditable open space parcels include, but are not limited to:

- City and county parks and forest preserves,
- State parks and state forests (there is no open space credit for federal lands),
- Publicly owned beaches or natural areas,
- School playing fields, and
- Floodplain easements dedicated to the community by developers.

Private wildlife or nature preserves that are maintained for open space purposes can qualify if the owner states in writing that they are intended to be kept as open space. Examples of such creditable open space parcels include, but are not limited to:

- Church retreats,
- Hunting club lands,
- Golf courses owned by nonprofit associations,
- Audubon Society preserves, and
- Boy Scout or Girl Scout camping areas.

A parcel set aside by a developer as a temporary “preserve” until the area develops is not considered preserved open space. Consult the *2013 CRS Coordinator’s Manual* for more information.

Additionally, the Town has various local regulations that provide open space incentives and low-density zoning:

- Zoning Law (Local Law No. 1 of 1973)
42.20 Land Conservation District
45.20 Supplementary Regulations with Respect to Specific Buildings, Structures and Uses, (e) Cluster or Large Scale Development and
- Land Development Regulations and Public Works Requirements
Article III – Development Requirements
3-12 Cluster Development
Article IV – Site Improvements
4-14 Open Space.

Cluster development is recognized in 45.20 Supplementary Regulations with Respect to Specific Buildings, Structures and Uses:

“The Planning Board is authorized, in a Rural Residential (R1A), Medium Density Residential (R-15,000), or Resort District, to approve cluster development simultaneously with the approval of a subdivision plat, in accordance with the requirements of Section 278 of the Town Law.”

Additionally, 3-12 Cluster Development, Land Development Regulations and Public Works Requirements:

The approval of any cluster subdivision development by the Planning Board shall be subject to the conditions set forth in Town Law Section 278. The purpose of cluster development shall be to enable and encourage flexibility of design and development of land in such a manner as to preserve the natural and scenic qualities of open lands. (See also 6-1 Cluster Development, Article VI – Administration.)

The Town of Huron could expand upon its open space preservation efforts and achieve additional credit points by:

420 ELEMENTS

Maximum
credit:
2,020 points

Open space preservation (OSP): Up to 1,450 points for keeping land vacant through ownership or regulations.

Deed restrictions (DR): Up to 50 points extra credit for legal restrictions that ensure that parcels credited for OPS will never be developed.

Natural functions open space (NFOS): Up to 350 points extra credit for OPS-credited parcels that are preserved in or restored to their natural state.

Special flood-related hazards open space (SHOS): Up to 50 points if the OPS-credited parcels are subject to one of the special flood-related hazards or if areas of special flood-related hazard are covered by low density zoning regulations.

Open space incentives (OSI): Up to 250 points for local requirements and incentives that keep flood-prone portions of new development open.

Low-density zoning (LZ): Up to 600 points for zoning districts that require lot sizes of 5 acres or larger.

Natural shoreline protection (NSP): Up to 120 points for programs that protect natural channels and shorelines.

Activity 430 (Higher Regulatory Standards)

Local Law No. 1 of 1987, entitled “Flood Damage Prevention,” was amended as Local Law No. 2 of 2015 to include higher standards than the minimum floodplain management requirements for participating NFIP communities. Those higher standards include the following definitions:

- “Critical facilities” – A list of facilities, such as hospitals, fire and police stations, that if flooded, would result in severe consequences to public health and safety. Protection for Critical Facilities (PCF) credit is provided for regulations that either prohibit critical facilities or set higher standards for protecting them from flood damage. In Section 5.0, “Construction Standards (5.8),” the Town of Huron requires that “no new critical facility shall be located within any Area of Special Flood Hazard, or within any 500-year flood zone shown as a B zone or a Shaded X zone on the Community’s Flood Insurance Rate Maps.” NFIP regulations do not have any provisions

for critical facilities other than that all buildings must be protected from damage by the 100-year flood.

- “Cumulative Substantial Improvement” – CSI requires that all improvements or repairs are counted cumulatively toward the substantial improvement requirement. This regulation ensures that owners do not evade flood protection measures by making many small improvements that eventually add up to a major or substantial improvement. CSI provides credit to a community that ensures that the total value of all improvements or repairs permitted over time does not exceed 50% of the value of the structure.
- “Substantial damage” – By modifying this definition, policyholders in the Town of Huron are eligible for Increased Cost of Compliance (ICC) coverage. This is a provision in flood insurance policies that help pay for bringing a substantially damaged flooded building into compliance with the local ordinance. When an insured building is damaged by a flood and the community declares the building to be substantially or repetitively damaged, ICC will help pay for the cost to elevate, floodproof, demolish, or relocate the building up to a maximum of \$30,000. This coverage is in addition to the building coverage for the repair of actual physical damage from flood under the policy. In order to receive credit points for substantial damage/improvement, the Town’s Building Department must demonstrate that it has a system for keeping track of improvements or repairs to each floodprone property. If a permit is applied for, the office must routinely check its files for past improvements, additions, and repairs, and calculate the cumulative effect of the proposed project. The records must show the value of building additions, improvements, and repairs and the building’s value. The Building Department has BAS Code Enforcement software that can chronologically track the history of a parcel.
- “Area of moderate wave action” and “Coastal high hazard area” – The Town of Huron has defined its coastal A Zone as the coastal SFHA that is not mapped as V Zone. A community may declare all of its coastal SFHA inland from the V Zone as coastal A Zone, or a portion of the coastal SFHA located landward of the V Zone and seaward of the line known as the Limit of Moderate Wave Action (LiMWA). CAZ credit is provided to a coastal community that designates a coastal A Zone and enforces V-Zone and/or enclosure limitation regulations in the designated area.

The Town is also one of 42 communities that have been certified by DEC as a CEHA community. The Town has its own coastal erosion hazard area law (e.g., Town of Huron Coastal Erosion Hazard Area Law, Local Law No. 4 of 2002 as amended by Local Law No. 4 of 2009), which requires a coastal erosion management permit for regulated activities to the Building Department.

The Town is interested in adopting regulatory language that prevents enclosing the area below the regulatory flood elevation. There is a tendency on the part of property owners to enclose the lower areas and convert them to bedrooms, family rooms, or other finished areas, in violation of floodplain management regulations. Credit is available for communities that execute nonconversion agreements, whereby owners agree not to modify the enclosed area to make it more susceptible to flood damage. The Town of Huron could expand upon its efforts to exceed the minimum criteria of the NFIP and achieve additional credit points by enforcing these enclosure limits and other higher regulatory requirements:

430 ELEMENTS	Development limitations (DL): Up to 1,330 points for prohibiting fill, buildings, and/or storage of materials in the SFHA.
	Freeboard (FRB): Up to 500 points for a freeboard requirement.
	Foundation protection (FDN): Up to 80 points for engineered foundations.
Maximum credit: 2,042 points	Cumulative substantial improvements (CSI): Up to 90 points for counting improvements cumulatively.
	Lower substantial improvements (LSI): Up to 20 points for a substantial improvement threshold lower than 50%.
	Protection of critical facilities (PCF): Up to 80 points for protecting facilities that are critical to the community.
	Enclosure limits (ENL): 240 points for prohibiting first-floor enclosures.
	Building code (BC): Up to 100 points for adopting and enforcing the International Code Series.
	Local drainage protection (LDP): Up to 120 points for ensuring that new buildings are protected from shallow flooding.
	Manufactured home parks (MHP): Up to 15 points for removing the elevation exemption for manufactured homes placed in existing manufactured home parks.
	Coastal A Zones (CAZ): Up to 650 points for enforcing V-Zone rules and/or ENL enclosure limits inland from the V-Zone boundary.
	Special flood-related hazards regulations (SHR): Up to 100 points for enforcing appropriate construction standards in areas subject to a special flood-related hazard.
	Other higher standard (OHS): Up to 100 points for other regulations.
	State-mandated regulatory standards (SMS): Up to 20 bonus points if a regulatory standard is required by the state.
	Regulations administration (RA): Up to 67 points for having trained staff and administrative procedures that meet specified standards.

Activity 450 (Stormwater Management)

Five municipalities are regulated as MS4s in Wayne County (including Wayne County Highway Department) and are required to establish local control of stormwater impacts during and after construction and provide enforcement against illicit discharges. The Town of Huron is not a regulated MS4. However, the Town has elected to have its Planning Board and designated representatives evaluate submitted erosion and sediment control design plans against the most current edition of the *New York State Standards and Specifications for Erosion and Sediment Control* through 3-14 Erosion Sediment Control, Land Development Regulations and Public Works Requirements:

“Erosion and sediment control measures, both temporary and permanent, must be designed per the SPDES General Permit and presented for approval to the Planning Board prior to any site development or soil disturbance.” (See also 10-9 Backfilling and Finishing and 10-16 Final Grading, Article X – Installation of Improvements.)

The Town Planning Board also addresses stormwater management as part of the approval process for subdivisions and site plans:

Article IV – Site Improvements
4-4 Storm and Surface Drainage
Article VIII – Design Criteria
8-2 Storm Drainage Systems.
8-4 Grading

The stormwater management and erosion and sedimentation controls that are provided in the Town’s Land Development Regulations and Public Works Requirements may provide a number of credit points in the following categories:

**450
ELEMENTS**

**Maximum
credit:
755 points**

Stormwater management regulations (SMR): Up to 380 points for regulating development on a case-by-case basis to ensure that the peak flow of stormwater runoff from each site will not exceed the predevelopment runoff.

Watershed master plan (WMP): Up to 315 points for regulating development according to a watershed management master plan. WMP is the total of eight sub-elements.

Erosion and sedimentation control regulations (ESC): Up to 40 points for regulations to minimize erosion from land disturbed due to construction or farming.

Water quality regulations (WQ): 20 points for regulations that improve the quality of stormwater runoff.

Activity 510 (Floodplain Management Planning)

The Huron Town Board authorized the submittal of the LWRP to DOS on April 18, 2016. The LWRP is currently being reviewed for approval by the Secretary of State. The LWRP could receive credit under Activity 510 if it was prepared in accordance with the 10-step CRS planning process. CRS-credited planning process is consistent with FEMA's multi-hazard mitigation planning regulations, which identify four phases of hazard mitigation planning. Although the plan document must discuss and document all 10 steps, the written plan does not need to be organized by these 10 steps. To document CRS credit, the Town must identify where these steps were covered in its plan, using the "510 FMP Checklist."

The update to the *Wayne County Multi-Jurisdictional All-Hazard Mitigation Plan* (2007) was prepared by G/FLRPC under the direction of the Wayne County All-Hazard Mitigation Plan Update Committee and Wayne County Office of Emergency Management in May, 2014. In order to be eligible for post-disaster mitigation funding from FEMA, HMPs must be updated every five years.

HMPs that are accepted by FEMA will receive some credit under Activity 510. The CRS requirements are more stringent than the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), against which FEMA judges an HMP. For instance, in order to receive CRS credit points, all Planning Committee meetings must be publicly advertised and open to the public.

The governing body of the Town of Huron adopted the *Wayne County Multi-Jurisdictional All-Hazard Mitigation Plan* on April 7, 2015 (expires June 20, 2019). This multi-jurisdictional plan may provide a number of credit points in the following categories:

510	Floodplain management planning (FMP): 382 points for a communitywide floodplain management plan that follows a 10-step planning process.
ELEMENTS	
Maximum credit:	Repetitive loss area analysis (RLAA): 140 points for a detailed mitigation plan for a repetitive loss area.
622 points	Natural floodplain functions plan (NFP): 100 points for adopting plans that protect one or more natural functions within the community's floodplain.

Opportunities

Activity 320 (Map Information Service)

The Building Department and the Code Enforcement Officer currently answers flood-related questions from the public. The Planning Board also provides comments through its Land Development Regulations and Public Works Requirements.

The Town of Huron could expand upon its existing services and achieve more credit points for providing inquirers with information about local flood hazards and flood-prone areas by:

320 ELEMENTS

Maximum
credit:
90 points

Basic FIRM information (MI1): 30 points for providing basic information found on a FIRM that is needed to write a flood insurance policy.

Additional FIRM information (MI2): 20 points for providing information that is shown on most FIRMs, such as protected coastal barriers, floodways, or lines demarcating wave action.

Problems not shown on the FIRM (MI3): Up to 20 points for providing information about flood problems other than those shown on the FIRM.

Flood depth data (MI4): Up to 20 points for providing information about flood depths.

Special flood-related hazards (MI5): Up to 20 points for providing information about special flood-related hazards, such as erosion, ice jams, or tsunamis.

Historical flood information (MI6): Up to 20 points for providing information about past flooding at or near the site in question.

Natural floodplain functions (MI7): Up to 20 points for providing information about areas that should be protected because of their natural floodplain functions.

The Town should remember that in order to receive credit points for Activity 320, it must be able to:

- Provide information from the FIRM needed to write a flood insurance policy,
- The map information service must be able to locate a property based on a street address,
- The information must be volunteered when there is an inquiry,
- The service must include an opportunity for personal contact,
- The inquiry must be responded to within a reasonable amount of time,
- The service must be publicized at least once a year (see page 320-4 of the *2013 CRS Coordinator's Manual*)
- The maps used must be kept updated at least annually to reflect new studies, subdivisions, annexations, flood insurance restudies, map revisions, and map amendments,
- The community must maintain copies of earlier FIRMs that have been in effect since 1999, and
- Records of the service must be kept and provided for credit documentation.

Consult the *2013 CRS Coordinator's Manual* for more information.

Activity 330 (Outreach Projects)

The Town of Huron has various community organizations that are interested in waterfront issues and water resources. Several groups have been identified as potential partners for the CRS program: Sodus Bay Improvement Association (SBIA), Crescent Beach Association (CBA), Wayne County East Bay Improvement Association, and Port Bay Improvement Association. Most of these organizations are composed of homeowners and seasonal renters from around the Town's embayment areas.

The Town of Huron has a website (<http://townofhuron.org/content/>) with connections to other organizations through its Links webpage as well as providing local News, Newsletters, and Public Notices. Activity 330 has six CRS priority topics for outreach projects:

1. Know your flood hazard.
2. Insure your property for your flood hazard.
3. Protect people from the hazard.
4. Protect your property from the hazard.
5. Build responsibly.
6. Protect natural floodplain functions.

Examples of annual general outreach projects include:

- Materials mailed to residents and/or businesses;
- Newspaper supplements and articles;
- Newsletter articles;
- Signs such as billboards, high water mark signs, or stencils at storm drain inlets;
- Radio and television ads or public service announcements;

- A staffed booth or display at public functions or shopping malls;
- Presentations to homeowners' associations, civic groups, or business associations; and
- Local television shows.

By coordinating with the education and outreach activities developed and facilitated by the various homeowners' associations, the Town of Huron could expand upon its existing actions and achieve credit points for outreach in the following ways:

330 ELEMENTS	Outreach projects (OP): Up to 200 points for designing and carrying out public outreach projects. Credits for individual projects may be increased if the community has a Program for Public Information (PPI).
Maximum credit: 350 points	Flood response preparations (FRP): Up to 50 points for having a preflood plan for public information activities ready for the next flood. Credits for individual projects may be increased by the PPI multiplier.
	Program for Public Information (PPI): Up to 80 points added to OP credits and up to 20 points added to FRP credits, for projects that are designed and implemented as part of an overall public information program.
	Stakeholder delivery (STK): Up to 50 points added to OP credits for having information disseminated by people or groups from outside the local government.

Activity 340 (Hazard Disclosure)

The Town of Huron states that real estate agents do advise potential purchasers if a property is located in a SFHA. Credit for Disclosure of the flood hazard (DFH) relies on real estate agents informing a potential purchaser whether the property is located in an area that is at high risk for flooding.

The best way to implement this activity is with written notification. Written notification provides the purchaser with the correct information and provides documentation for the real estate agent and the ISO/CRS Specialist. Notations can be provided on property summary sheets, offer-to-purchase forms, Multiple Listing Service (MLS) forms, or other media. The most common approach is to have a box on the MLS form.

The Town of Huron is willing to develop brochures or handouts with real estate agents, and could achieve additional credit points for hazard disclosure by:

340	Disclosure of the flood hazard (DFH): Up to 25 points if real estate agents notify those interested in purchasing properties located in SFHA about the flood hazard and the flood insurance purchase requirement. An additional 10 points are provided if the disclosure program is part of a Program for Public Information credited under Activity 330 (Outreach Projects).
ELEMENTS	
Maximum credit:	
80 points	Other disclosure requirements (ODR): Up to 5 points for each other method of flood hazard disclosure required by law, up to a maximum of 25 points.
	Real estate agents' brochure (REB): Up to 8 points if real estate agents are providing brochures or handouts that advise potential buyers to investigate the flood hazard for a property. An additional 4 points are provided if the disclosure program is part of a Program for Public Information credited in Activity 330 (Outreach Projects).
	Disclosure of other hazards (DOH): Up to 8 points if the notification to prospective buyers includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands.

Activity 350 (Flood Protection Information)

As mentioned earlier, the Town has a website (<http://townofhuron.org/content/>) with various links, notices, and content updates. The objective of Activity 350 is to provide the public with information about flood protection that is more detailed than through outreach projects. Flood protection could potentially be included on the Town website, the Port Bay Improvement Association website (<http://portbayny.org/new/>), or the Wayne County East Bay Improvement Association website (<http://wcebia.wixsite.com/wcebia/about>). Additional credit points may be provided if the Port Bay Improvement Association or Wayne County East Bay Improvement Association websites are part of a Program for Public Information (PPI) credited under Activity 330. According to the 2013 CRS Coordinator's Manual, a community can receive credit for a county or regional website, provided that there is a link from the community's website and that the information is locally pertinent.

The Town of Huron could expand upon its existing ways of informing the public about flood protection and achieve additional credit points by:

350	Flood protection library (LIB): 10 points for having 10 FEMA publications on flood protection topics housed in the public library.
ELEMENTS	
Maximum credit: 125 points	Locally pertinent documents (LPD): Up to 10 points for having additional references on the community's flood problem or local or state floodplain management programs housed in the public library.
	Flood protection website (WEB): Up to 76 points for providing flood protection information via the community's website. An additional 29 points are provided if the website is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).

Activity 360 (Flood Protection Assistance)

Complaints about flooding and drainage problems are normally addressed via site visits by the Code Enforcement Officer or at Town Board meetings. Wayne County Soil and Water Conservation District (SWCD) also provides technical assistance, facilitated by DEC requesting work within a specific area of a stream or via landowner requests, as well as assistance to landowners in the form of property protection and financial assistance advice.

In order to achieve maximum credit points for providing flood protection advice and assistance, the Town of Huron should review the following criteria:

**360
ELEMENTS**

**Maximum
credit:
110 points**

Property protection advice (PPA): Up to 25 points for providing one-on-one advice about property protection. An additional 15 points are provided if the assistance program is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).

Protection advice provided after a site visit (PPV): Up to 30 points if the property protection advisor makes a site visit before providing the advice. An additional 15 points are provided if the site visit procedures are part of a Program for Public Information credited under Activity 330 (Outreach Projects).

Financial assistance advice (FAA): 10 points for providing advice on financial assistance programs that may be available. An additional 5 points are provided if the financial assistance advisory service is part of a Program for Public Information credited under Activity 330 (Outreach Projects).

Advisor training (TNG): 10 points if the person providing the advice has graduated from the EMI courses on retrofitting or grants programs.

Activity 610 (Flood Warning and Response)

Wayne County is officially designated as a StormReady community. StormReady is a nationwide community preparedness program administered by the National Weather Service (NWS) that uses a grassroots approach to help communities upgrade its emergency preparedness infrastructure. The program encourages communities to improve local operations for weather emergencies by providing emergency managers with proactive strategies, such as ensuring that equipment is in place and updated, contact information is accurate, and allowing for technological advances in communications and warning dissemination.

Wayne County may be able to work with the Town of Huron to help upgrade its emergency preparedness operations for CRS credit points:

610 ELEMENTS

Maximum
credit:
395 points

Flood threat recognition system (FTR): Up to 75 points for a system that predicts flood elevations and arrival times at specific locations within the community.

Emergency warning dissemination (EWD): Up to 75 points for disseminating flood warnings to the public.

Flood response operations (FRO): Up to 115 points for implementation of specific tasks to reduce or prevent threats to health, safety, and property.

Critical facilities planning (CFP): Up to 75 points for coordinating flood warning and response activities with operators of critical facilities.

StormReady community (SRC): 25 points for designation by the NWS as a StormReady community.

TsunamiReady community (TRC): 30 points for designation by the NWS as a TsunamiReady community.

DRAFT

Village of Sodus Point, Wayne County

Census 2010 Total Population: 900

Policies In-force (as of 01/31/2017): 63

CRS Quick Check	Now	Could
Total	362	509
Total "Now" + "Could"		871
Potential CRS Class	10	9

Strengths	Opportunities
Activity 310 (Elevation Certificates)	Activity 320 (Map Information Service)
Activity 420 (Open Space Preservation)	Activity 330 (Outreach Projects)
Activity 510 (Floodplain Management Planning)	Activity 340 (Hazard Disclosure)
	Activity 350 (Flood Protection Information)
	Activity 450 (Stormwater Management)
	Activity 540 (Drainage System Maintenance)
	Activity 610 (Flood Warning and Response)

Strengths

Activity 310 (Elevation Certificates)

FEMA Elevation Certificates on all new buildings and substantial improvements in the SFHA is mandatory for CRS classification. Almost all buildings constructed to meet NFIP criteria are raised so that the lowest floor is at or above the base flood elevation (plus two feet in New York State, beginning 2007). The appropriate record that shows that the building meets the code requirement is the FEMA Elevation Certificate. The Village of Sodus Point states that it maintains Elevation Certificates on all buildings constructed, substantially improved, or placed in the SFHA. It is the Village's responsibility to review the certificates for accuracy, and make copies available to any inquirer.

If the Village of Sodus Point decides to apply for the CRS, the following activities should be reviewed:

1. The community must maintain completed FEMA Elevation Certificates showing the "finished construction" elevations for all buildings constructed or substantially improved in the SFHA during the period credited.
2. If the building was floodproofed, a FEMA Floodproofing Certificate is needed instead of an Elevation Certificate. Other certificates may be needed in coastal high hazard areas and for floodproofed residential basements.

3. The community must review the certificates to ensure that they are complete and that the information is correct.
4. The community must make copies of Elevation Certificates readily available to anyone upon request. If a community receives credit for having Elevation Certificates from before it applied to the CRS, it must be able to retrieve those certificates, including those from projects whose permit files may have been archived or discarded.

Activity 420 (Open Space Preservation)

The Village of Sodus Point has an approved Local Waterfront Revitalization Program (LWRP) that provides a list of parks and community owned parcels with estimated sizes:

Parcel	Public Ownership	Area
Oscar Fuerst Park	Village of Sodus Point	3.2 acres
Willow Park	Village of Sodus	3.1 acres
Town of Sodus (green space)	Town of Sodus	2.2 acres
Village of Sodus Water		4.3 acres
Harriman Park	Town of Sodus and Village of Sodus Point	4.2 acres
Water tower in the Heights	Village of Sodus Point	23.0 acres
Lighthouse	Town of Sodus	1.1 acres
Village Park adjacent to Lighthouse	Village of Sodus Point	2.3 acres
Sodus Point Park	Town, County and Coast Guard lands	6.2 acres
Vista Sunset Park		.2 acres
		Total = 49.8

CRS credit is given for areas in a regulated floodplain (e.g., 100-year flood zone) that are permanently preserved as open space, which means that a GIS or a data base management program for parcel records will need to determine the area of the parcel in the floodplain.

Public land, such as state and local parks and easements, can qualify if the owning agency states in writing that the lands are intended to be kept as open space. Examples of such creditable open space parcels include, but are not limited to:

- City and county parks and forest preserves,
- State parks and state forests (there is no open space credit for federal lands),
- Publicly owned beaches or natural areas,

- School playing fields, and
- Floodplain easements dedicated to the community by developers.

Private wildlife or nature preserves that are maintained for open space purposes can qualify if the owner states in writing that they are intended to be kept as open space. Examples of such creditable open space parcels include, but are not limited to:

- Church retreats,
- Hunting club lands,
- Golf courses owned by nonprofit associations,
- Audubon Society preserves, and
- Boy Scout or Girl Scout camping areas.

A parcel set aside by a developer as a temporary “preserve” until the area develops is not considered preserved open space. Consult the *2013 CRS Coordinator’s Manual* for more information.

Additionally, the Village has local regulations that provide open space incentives and low-density zoning: Chapter 190: Zoning and Chapter 186: Waterfront Consistency. Cluster development is recognized in §190-27. Residential cluster development:

“In order to promote the health and general welfare of the community and to preserve and make available open space, the Village Planning Board may grant a developer the right to vary the residential density within a tract to be developed (but not maintained) under single ownership, leaving a substantial area free of building lots.”

Actions to be undertaken in the Waterfront/Commercial zoning district are evaluated for consistency in accordance with the LWRP policy standards and conditions, as described in § 186-4. Review of actions:

(1) Fostering a pattern of development in the Village of Sodus Point that enhances community character, preserves open space, makes efficient use of the infrastructure, makes beneficial use of a waterfront location, and minimized potential adverse impacts of development.

The Village of Sodus Point could expand upon its open space preservation efforts and achieve additional credit points by:

420 ELEMENTS

Maximum
credit:
2,020 points

Open space preservation (OSP): Up to 1,450 points for keeping land vacant through ownership or regulations.

Deed restrictions (DR): Up to 50 points extra credit for legal restrictions that ensure that parcels credited for OPS will never be developed.

Natural functions open space (NFOS): Up to 350 points extra credit for OPS-credited parcels that are preserved in or restored to their natural state.

Special flood-related hazards open space (SHOS): Up to 50 points if the OPS-credited parcels are subject to one of the special flood-related hazards or if areas of special flood-related hazard are covered by low density zoning regulations.

Open space incentives (OSI): Up to 250 points for local requirements and incentives that keep flood-prone portions of new development open.

Low-density zoning (LZ): Up to 600 points for zoning districts that require lot sizes of 5 acres or larger.

Natural shoreline protection (NSP): Up to 120 points for programs that protect natural channels and shorelines.

Activity 510 (Floodplain Management Planning)

The Village of Sodus Point has a LWRP approved by the NYS Secretary of State pursuant to Article 42 of the NYS Executive Law. It is one of only eight approved LWRPs in the Finger Lakes Region (e.g., Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates). The plan was approved by the NYS Secretary of State on March 9, 2012. The LWRP was adopted by the Village of Sodus Point Board of Trustees on June 5, 2006 and is enforced through Chapter 186: Waterfront Consistency (adopted as Local Law No. 2-2006). The LWRP could receive credit under Activity 510 if it was prepared in accordance with the 10-step CRS planning process. CRS-credited planning process is consistent with FEMA's multi-hazard mitigation planning regulations, which identify four phases of hazard mitigation planning. Although the plan document must discuss and document all 10 steps, the written plan does not need to be organized by these 10 steps. To document CRS credit, the Village must identify where these steps were covered in its plan, using the "510 FMP Checklist."

The update to the *Wayne County Multi-Jurisdictional All-Hazard Mitigation Plan* (2007) was prepared by G/FLRPC under the direction of the Wayne County All-Hazard Mitigation Plan Update Committee and Wayne County Office of Emergency Management in May, 2014. In order to be eligible for post-disaster mitigation funding from FEMA, HMPs must be updated every five years.

HMPs that are accepted by FEMA will receive some credit under Activity 510. The CRS requirements are more stringent than the requirements of the Disaster Mitigation Act of 2000 (DMA 2000), against which FEMA judges an HMP. For instance, in order to receive CRS credit points, all Planning Committee meetings must be publicly advertised and open to the public.

The governing body of the Village of Sodus Point adopted the *Wayne County Multi-Jurisdictional All-Hazard Mitigation Plan* on September 16, 2014 (expires June 20, 2019). This multi-jurisdictional plan may provide a number of credit points in the following categories:

510	Floodplain management planning (FMP): 382 points for a communitywide floodplain management plan that follows a 10-step planning process.
ELEMENTS	
	Repetitive loss area analysis (RLAA): 140 points for a detailed mitigation plan for a repetitive loss area.
Maximum credit:	
622 points	Natural floodplain functions plan (NFP): 100 points for adopting plans that protect one or more natural functions within the community's floodplain.

Opportunities

Activity 320 (Map Information Service)

The Village Office and the Code Enforcement Officer currently answers flood-related questions from the public. The Mayor and Village Trustees also provide comments at their monthly Village Board Meetings.

The Village of Sodus Point could expand upon its existing services and achieve more credit points for providing inquirers with information about local flood hazards and flood-prone areas by:

320 ELEMENTS

**Maximum
credit:
90 points**

Basic FIRM information (MI1): 30 points for providing basic information found on a FIRM that is needed to write a flood insurance policy.

Additional FIRM information (MI2): 20 points for providing information that is shown on most FIRMs, such as protected coastal barriers, floodways, or lines demarcating wave action.

Problems not shown on the FIRM (MI3): Up to 20 points for providing information about flood problems other than those shown on the FIRM.

Flood depth data (MI4): Up to 20 points for providing information about flood depths.

Special flood-related hazards (MI5): Up to 20 points for providing information about special flood-related hazards, such as erosion, ice jams, or tsunamis.

Historical flood information (MI6): Up to 20 points for providing information about past flooding at or near the site in question.

Natural floodplain functions (MI7): Up to 20 points for providing information about areas that should be protected because of their natural floodplain functions.

The Village should remember that in order to receive credit points for Activity 320, it must be able to:

- Provide information from the FIRM needed to write a flood insurance policy,
- The map information service must be able to locate a property based on a street address,
- The information must be volunteered when there is an inquiry,
- The service must include an opportunity for personal contact,
- The inquiry must be responded to within a reasonable amount of time,
- The service must be publicized at least once a year (see page 320-4 of the *2013 CRS Coordinator's Manual*)
- The maps used must be kept updated at least annually to reflect new studies, subdivisions, annexations, flood insurance restudies, map revisions, and map amendments,
- The community must maintain copies of earlier FIRMs that have been in effect since 1999, and
- Records of the service must be kept and provided for credit documentation.

Consult the *2013 CRS Coordinator's Manual* for more information.

Activity 330 (Outreach Projects)

The Village of Sodus Point partners with various community organizations for the betterment of the community. Two organizations that have been identified as potential partners for the CRS program are Save our Sodus (SOS) and Sodus Bay Improvement Association (SBIA). SOS is a non-profit organization dedicated to preserve, protect, and improve Great Sodus Bay. The organization focuses on four main areas: 1) Water quality, 2) Invasive species, 3) Changes for Lake Ontario water levels, and 4) Protection of the shorelines. SBIA is a neighborhood partner of SOS whose membership is composed of homeowners and seasonal renters from around Sodus Bay.

The Village of Sodus Point has a website (<http://www.soduspoint.info/>) that links to the SOS website (<http://saveoursodus.com/>). The SOS website provides information about the threats to Sodus Bay; various maps and planning documents such as *The Great Sodus Embayment Preservation Plan (2007)*; opportunities to participate and donate; and a blog.

Activity 330 has six CRS priority topics for outreach projects:

1. Know your flood hazard.
2. Insure your property for your flood hazard.
3. Protect people from the hazard.
4. Protect your property from the hazard.
5. Build responsibly.
6. Protect natural floodplain functions.

Examples of annual general outreach projects include:

- Materials mailed to residents and/or businesses;
- Newspaper supplements and articles;
- Newsletter articles;
- Signs such as billboards, high water mark signs, or stencils at storm drain inlets;
- Radio and television ads or public service announcements;
- A staffed booth or display at public functions or shopping malls;
- Presentations to homeowners' associations, civic groups, or business associations; and
- Local television shows.

By coordinating with the education and outreach activities developed and facilitated by SOS and SBIA, the Village of Sodus Point could expand upon its existing actions and achieve credit points for outreach in the following ways:

**330
ELEMENTS**

Outreach projects (OP): Up to 200 points for designing and carrying out public outreach projects. Credits for individual projects may be increased if the community has a Program for Public Information (PPI).

**Maximum
credit:
350 points**

Flood response preparations (FRP): Up to 50 points for having a preflood plan for public information activities ready for the next flood. Credits for individual projects may be increased by the PPI multiplier.

Program for Public Information (PPI): Up to 80 points added to OP credits and up to 20 points added to FRP credits, for projects that are designed and implemented as part of an overall public information program.

Stakeholder delivery (STK): Up to 50 points added to OP credits for having information disseminated by people or groups from outside the local government.

Activity 340 (Hazard Disclosure)

The Village of Sodus Point states that real estate agents do advise potential purchasers if a property is located in a SFHA. Credit for Disclosure of the flood hazard (DFH) relies on real estate agents informing a potential purchaser whether the property is located in an area that is at high risk for flooding.

The best way to implement this activity is with written notification. Written notification provides the purchaser with the correct information and provides documentation for the real estate agent and the ISO/CRS Specialist. Notations can be provided on property summary sheets, offer-to-purchase forms, Multiple Listing Service (MLS) forms, or other media. The most common approach is to have a box on the MLS form.

The Village of Sodus Point has a literature display available at Village Hall for various brochures and could achieve additional credit points for hazard disclosure by:

340 ELEMENTS Maximum credit: 80 points	Disclosure of the flood hazard (DFH): Up to 25 points if real estate agents notify those interested in purchasing properties located in SFHA about the flood hazard and the flood insurance purchase requirement. An additional 10 points are provided if the disclosure program is part of a Program for Public Information credited under Activity 330 (Outreach Projects).
	Other disclosure requirements (ODR): Up to 5 points for each other method of flood hazard disclosure required by law, up to a maximum of 25 points.
	Real estate agents' brochure (REB): Up to 8 points if real estate agents are providing brochures or handouts that advise potential buyers to investigate the flood hazard for a property. An additional 4 points are provided if the disclosure program is part of a Program for Public Information credited in Activity 330 (Outreach Projects).
	Disclosure of other hazards (DOH): Up to 8 points if the notification to prospective buyers includes disclosure of other flood-related hazards, such as erosion, subsidence, or wetlands.

Activity 350 (Flood Protection Information)

As mentioned earlier, the Village has a website which links to the SOS website. The objective of Activity 350 is to provide the public with information about flood protection that is more detailed than through outreach projects. Flood protection could potentially be included on the SOS website in the Shoreline or Wetlands pages. Additional credit points may be provided if the SOS website is part of a Program for

Public Information (PPI) credited under Activity 330. According to the *2013 CRS Coordinator's Manual*, a community can receive credit for a county or regional website, provided that there is a link from the community's website and that the information is locally pertinent.

The Village of Sodus Point could expand upon its existing ways of informing the public about flood protection and achieve additional credit points by:

350 ELEMENTS	Flood protection library (LIB): 10 points for having 10 FEMA publications on flood protection topics housed in the public library.
Maximum credit: 125 points	Locally pertinent documents (LPD): Up to 10 points for having additional references on the community's flood problem or local or state floodplain management programs housed in the public library.
	Flood protection website (WEB): Up to 76 points for providing flood protection information via the community's website. An additional 29 points are provided if the website is part of a Program for Public Information (credited under Activity 330 (Outreach Projects)).

Activity 450 (Stormwater Management)

Five municipalities are regulated as MS4s in Wayne County (including Wayne County Highway Department) and are required to establish local control of stormwater impacts during and after construction and provide enforcement against illicit discharges. The Village of Sodus Point is not a regulated MS4. However, the municipality may be agreeable to the adoption of local regulations for stormwater management and erosion and sediment control, as this is a policy statement supported in the Village's LWRP and enforced when reviewing applications for actions or direct agency actions located in the waterfront area, as per Chapter 186: Waterfront Consistency, §186-4. Review of actions:

- (4) Minimizing loss of life, structures and natural resources from flooding and erosion.
- (5) Protecting and improving water resources.

The Village provides additional oversight through Chapter 190: Zoning, Article IX - Site Plan Approval and Special Permits:

§ 190-49. Site plan review. (D) Factors for consideration.

- (g) Adequacy of stormwater drainage and sanitary sewage disposal facilities.
- (h) Adequacy of structures, roadways and landscaping in areas with moderate to high susceptibility to flooding and ponding and/or erosion.

DEC currently has a sample local law available for public review and comment on their Public Review Documents webpage for stormwater management and erosion and sediment control. DEC worked with the DOS through the Community Risk and Resiliency Act (CRRA) Model Law effort to prepare the “Draft Sample Local Law for Stormwater Management and Erosion and Sediment Control, October 21, 2016.” This sample law provides updates to reflect the current requirements of the Construction General Permit and proposed draft MS4 renewal. There are two versions of the Draft Sample Local Law: the base version and the resiliency version. When finalized, the MS4 renewal will require regulated MS4s to adopt the base version that includes the basic requirements needed for location regulation of both erosion and sediment control during construction and installation of post-construction stormwater practices that provide long-term water quality and quantity control of stormwater runoff, as well as green infrastructure practices as required in the New York State Stormwater Management Design Manual. The second version of the sample local law includes additional provisions to encourage site planning for green infrastructure, prevent flooding impacts, increase community resilience, and address the potential impacts of climate change.

Adoption of either model local law may provide credit points for stormwater management, erosion and sedimentation control, and/or water quality regulations for the Village of Sodus Point as described below:

**450
ELEMENTS**

**Maximum
credit:
755 points**

Stormwater management regulations (SMR): Up to 380 points for regulating development on a case-by-case basis to ensure that the peak flow of stormwater runoff from each site will not exceed the predevelopment runoff.

Watershed master plan (WMP): Up to 315 points for regulating development according to a watershed management master plan. WMP is the total of eight sub-elements.

Erosion and sedimentation control regulations (ESC): Up to 40 points for regulations to minimize erosion from land disturbed due to construction or farming.

Water quality regulations (WQ): 20 points for regulations that improve the quality of stormwater runoff.

Activity 540 (Drainage Maintenance)

Since 2008, the Wayne County SWCD has been assessing local water quality within six of the eight priority watersheds as outlined by the Wayne County Water Quality Coordinating Committee. Wayne County SWCD provides drainage assistance if requested by the municipality. Five towns are currently undertaking that connective work. There is also an Agricultural Drainage Program that maintains 67 drainage projects across Wayne County to aid specific areas with flow challenges due to topography, soil type, and weather patterns. Wayne County SWCD provides technical assistance if requested by a landowner or municipality, and sometimes specialty projects may result. An overview of the Agricultural Drainage Program with reporting since 2011 is available on the Wayne County SWCD website (<http://www.waynecountynysoilandwater.org/>). Wayne County SWCD recently completed a shoreline protection project in the Village of Sodus Point that stabilized an eroded bank with a sewer main, utility lines, and roadway nearby through various textiles and natural vegetation.¹⁷

For the CRS program, Activity 540 is broken down into the following components that the Village of Sodus Point may achieve credit points:

¹⁷ District Manager Lindsey M. Gerstenslager, Wayne County Soil and Water Conservation District, e-mail message to author, September 30, 2016.

540 ELEMENTS

Maximum
credit:
570 points

Channel debris removal (CDR): Up to 200 points for inspecting public and private drainage systems and removing debris as appropriate.

Problem site maintenance (PSM): Up to 50 points for paying special attention to known problem sites, such as those needing more frequent inspections.

Capital improvement program (CIP): Up to 70 points for having a capital improvement program that corrects drainage problems.

Stream dumping regulations (SDR): Up to 30 points if the community has and publicizes regulations prohibiting dumping in streams and ditches.

Storage basin maintenance (SBM): Up to 120 points for annually inspecting public and private storage basins and performing the required maintenance.

Coastal erosion protection maintenance (EPM): Up to 100 points for maintaining erosion protection programs in communities with coastal erosion-prone areas

In order to maximize credit points, the Village of Sodus Point should review the following criteria:

1. Have a program to inspect and maintain drainage facilities, problem sites, and storage basins. Inspections must be conducted:
 - (a) At least once each year,
 - (b) Upon receiving a complaint, and
 - (c) After each major storm.
 - (d) Action must be taken when an inspection reveals a need for maintenance or cleaning.
2. Have a map of the community's drainage maintenance area with the conveyance system delineated and its components (structures and segments) labeled. The problem sites and location of all public and private storage basins must also be mapped.
3. Provide a complete inventory of conveyance system components, problem sites, and storage basins within its jurisdiction.

The key to Activity 540 is documentation: procedures for inspection and maintenance must be in the form of written procedures or guidelines, and all the inspection and maintenance activities must be recorded and the records must be maintained until the next verification visit.

Activity 610 (Flood Warning and Response)

Wayne County is officially designated as a StormReady community. StormReady is a nationwide community preparedness program administered by the NWS that uses a grassroots approach to help communities upgrade its emergency preparedness infrastructure. The program encourages communities to improve local operations for weather emergencies by providing emergency managers with proactive strategies, such as ensuring that equipment is in place and updated, contact information is accurate, and allowing for technological advances in communications and warning dissemination. The Village of Sodus Point states that some work has been accomplished in disaster preparedness, including training with Emergency Declaration Orders.

Wayne County may be able to work with the Village of Sodus Point to help upgrade its emergency preparedness operations for CRS credit points:

610 ELEMENTS

Maximum
credit:
395 points

Flood threat recognition system (FTR): Up to 75 points for a system that predicts flood elevations and arrival times at specific locations within the community.

Emergency warning dissemination (EWD): Up to 75 points for disseminating flood warnings to the public.

Flood response operations (FRO): Up to 115 points for implementation of specific tasks to reduce or prevent threats to health, safety, and property.

Critical facilities planning (CFP): Up to 75 points for coordinating flood warning and response activities with operators of critical facilities.

StormReady community (SRC): 25 points for designation by the NWS as a StormReady community.

TsunamiReady community (TRC): 30 points for designation by the NWS as a TsunamiReady community.

Section IV – Solutions to Encourage Municipal Participation and Advancement

By working collaboratively and sharing resources, more municipalities in New York State can gain access to the CRS program. Intergovernmental cooperation, regional service delivery, and/or nonprofit assistance are some solutions that the Town of Parma in Monroe County and the Towns of Ontario and Huron and the Village of Sodus Point in Wayne County may want to explore. Intergovernmental cooperation, such as Intermunicipal Agreements (IMAs) or “shared services,” are tools available to local governments in New York State for service delivery.

In order to eliminate duplicative effort and achieve significant cost savings, local governments can work together to provide a service for the benefit of all the municipalities involved. There are many statutes in New York State that empower local governments to act cooperatively or jointly between and among themselves so that facilities and services can be provided in a more effective and efficient manner. The most general grant of authority is Article 5-G of the General Municipal Law. Intergovernmental cooperation can be as simple as communicating and sharing information, or it can be a written, formal agreement to share resources such as equipment, buildings, staff, and revenue. It can even involve consolidating services, jurisdictions, or transferring territory.

There are two types of formal cooperative agreements: service agreements and joint agreements. A service agreement is a formal written agreement in which one local government contracts with another to provide a service at a stated price. For example, providing snow plowing services. A formal written agreement in which participating local governments agree to share in the performance of a function or the construction and operation of a facility is known as a joint agreement. A joint agreement usually involves significant participation by each of the local governments.¹⁸ A town and village working together to operate a sewage treatment plant is an example of a joint agreement.

¹⁸ “Intergovernmental Cooperation,” NYSDOS James A. Coon Local Government Technical Series, accessed January 17, 2017, <https://www.dos.ny.gov/lg/publications/Intergovernmental%20Cooperation.pdf>.

Intermunicipal Agreements

Both the Stormwater Coalition of Monroe County (SCMC) and the Ontario-Wayne Stormwater Coalition (OWSC) were organized to work collaboratively with the Phase II Federal Stormwater Regulations and permit conditions placed on municipal separate storm sewer system (MS4) operators in 2003. The SCMC was established in 2000 with 29 municipal members and the OWSC was established in 2005 with nine members. Both Coalitions have an Intermunicipal Agreement (IMA) that outlines the composition of that body along with authority and responsibilities, the method of selection of its members and officers and their duties, and the number and frequency of its meetings. Both IMAs also require membership fees to fund the implementation of compliance activities, which are part of each Coalition member's stormwater management plan. Stormwater coalitions provide the opportunity for cost savings by working collaboratively on the six minimum control measures required by the Stormwater MS4 General Permit and the 19 floodplain management activities of the CRS program, such as public education, outreach projects, and public involvement/participation. For example, the SCMC implements a wide range of public education programs, which includes the H2O Hero media campaign in addition to a website and Facebook page. Research is needed on how to better coordinate the education and outreach activities developed and facilitated by the SCMC with flood protection information, assistance, and outreach. Stormwater Management (Activity 450) and Drainage Maintenance (Activity 540) are two of the 19 CRS credited activities that are also major components of Stormwater Phase II. The CRS and MS4 programs can work together to achieve benefits for both water quality and flood protection.

The Great Sodus Bay Watershed Intermunicipal Committee consists of representatives from the Towns of Huron and Sodus and the Village of Sodus Point. In 2002, these municipalities entered into the Great Sodus Bay Watershed Restoration and Protection Plan Intermunicipal Agreement, which created the Committee. The Committee administers and oversees the continuation of the planning process and implementation of the *Sodus Bay Waterfront Initiative* (Vision Plan) and the preparation of the *Great Sodus Bay Harbor Management Plan*. The Committee meets on an as-needed basis, with some administration provided by Wayne County Planning. Outreach Projects (Activity 330), Flood Protection Information (Activity 350), Open Space Preservation (Activity 420), and Stormwater Management (Activity 450) are several CRS activities that could help accomplish implementation of both the Vision Plan and *Great Sodus Bay Harbor Management Plan*. An agreement for joint service delivery with one staff person (an idea already expressed as a bay manager position in the Vision Plan) could be explored

in order to apply for a community's CRS classification, annual recertification, modifications to CRS credit, and cycle verification.

Regional Planning

A Regional Planning Council (RPC) is a public organization created to foster coordination among neighboring counties and to provide a regional approach to issues that cross municipal boundaries, such as water resources or economic and social concerns. In New York State, municipalities can voluntarily create a RPC under Articles 12-B and 5-G of the New York State General Municipal Law. RPCs do not have the power to regulate or tax. They are primarily funded by county governments and with state and federal funds. The governing bodies of RPCs are primarily composed of local government officials and/or appointed representatives of local and county government. By presenting a regional perspective on issues, RPCs are a vehicle for local governments to share their resources and facilitate dialogue between state and federal governments. There are more than 670 Regional Councils nationwide, representing almost all 50 states.

The New York State Association of Regional Councils (NYSARC) consists of nine locally created RPCs that represent the majority of the counties in New York State. Non-member counties are able to contract with NYSARC members and be involved with various types of programming. NYSARC has an ongoing working relationship with a variety of state agencies to deliver state-funded programming on a regional basis.

The NYSARC Water Resources Management Program focuses on comprehensive water resource planning, protection, and management. The nine RPCs in New York State have been active in water resources management since the 1970s, with support from various federal Clean Water Act funding programs provided through the U.S. Environmental Protection Agency (EPA) as well as the DEC and DOS. In order to facilitate watershed-based initiatives in an efficient manner, NYSARC works closely with County Water Quality Coordinating Committees (WQCCs) and enlists the expertise and services of local agencies such as County Planning Departments, Soil and Water Conservation Districts, and County Health Departments to reach water protection goals. Developing water resource program methods and/or products that can be transferred to other areas of the state and watersheds is a primary

objective of NYSARC, with the added benefits of economic development, land use, and social considerations.¹⁹

Genesee/Finger Lakes Regional Planning Council (G/FLRPC) is one of the nine locally created RPCs in New York State and covers a nine-county region (e.g., Genesee, Livingston, Monroe, Ontario, Orleans, Seneca, Wayne, Wyoming, and Yates Counties). In March 2011, G/FLRPC hosted a Regional Roundtable on “Green Infrastructure for Stormwater Management” and “Planning for Better Floodplain Management” in June 2013. Regional Roundtables are facilitated several times each year by G/FLRPC to exchange ideas, discuss opportunities, and explore solutions to issues affecting the region. The most recent roundtable in 2014 focused on the CRS and brainstormed solutions to achieve better collaboration and implementation, which included a list of CRS activities that G/FLRPC identified for possible service delivery to local governments.

Other examples of regional implementation include:

- Monmouth County, New Jersey is piloting a CRS initiative for better coordinated flood hazard preparedness. This new countywide program is a partnership between the Division of Planning and the Office of Emergency Management (OEM). Professional and technical expertise in hazard mitigation, community planning, public outreach, and GIS mapping is provided to municipalities that wish to participate in the Monmouth County CRS Assistance Program. The program was established in 2014 by Resolution #2014-0201 with particular guidelines. Under these guidelines, municipalities may seek technical assistance as it relates to a specific CRS activity identified by the CRS Coordinator’s Manual. The most recent project is a countywide evacuation plan that OEM is working on that ties into Flood Warning and Response (Activity 610). Although the County is assisting municipalities with their individual activities, the County is not responsible for managing municipal CRS programs. Once a municipality receives its initial CRS classification from ISO, they are responsible for continuing to implement their credited activities in order to keep, maintain, and improve upon their classification. The County also facilitates a quarterly CRS User Group that is open to all municipalities whether they are already

¹⁹ “The New York State Association of Regional Councils (NYSARC), Water Resource Program,” Central New York Regional Planning and Development Board, accessed January 23, 2017, <http://www.cnyrpd.org/NYSARCwater/?NYSARC-Water-Resource-Program-34> and [http://www.cnyrpd.org/NYSARCwater/?The-New-York-State-Association-of-Regional-Councils-\(NYSARC\)-48](http://www.cnyrpd.org/NYSARCwater/?The-New-York-State-Association-of-Regional-Councils-(NYSARC)-48).

in the CRS program or wish to learn more about it. These meetings provide municipalities an opportunity to discuss their approaches and action steps with one another. It also provides a regional forum for discussion about common obstacles that confront program implementation. This tool has proven to be a valuable peer mentoring experience, as some of the more advanced municipalities often provide recommendations or give their insight to those that are just starting in CRS. It also provides municipalities the opportunity to ask specific questions about the CRS program, which the County can then take directly to the State, ISO or third party representatives such as the New Jersey Association for Floodplain Management.²⁰

- The Greater Bridgeport Regional Council (GBRC) was awarded a FEMA Community Resilience Innovation Program grant in the amount of \$35,000 for a Regional Flooding Risk Assessment and Community Rating System Feasibility Study. This grant has enabled GBRC to investigate the feasibility of implementing the CRS program for the GBRC member communities of Bridgeport, Easton, Fairfield, Monroe, Stratford, and Trumbull. The project includes an assessment and analysis of coastal and inland flooding risks and public meetings with residents on flood preparedness.²¹ See Appendix D for a list of CRS activities that GBRC has identified for potential service delivery.
- Barnstable County through the Cape Cod Cooperative Extension provides technical assistance to 15 towns through the work of a Community Rating System and Floodplain Coordinator. The Coordinator position is partially funded through discretionary funding that Sea Grant receives from the Woods Hole Oceanographic Institution. Half of the Coordinator's time focuses on CRS assistance while other responsibilities include basic floodplain management. The CRS Coordinator brings new municipal CRS Coordinators up-to-speed and also works on regional projects such as mosquito control districts that enables CRS credit points. The goal is to have all 15 towns participate in the CRS.

²⁰ "Monmouth County Community Rating System Assistance Program," Monmouth County Division of Planning, accessed January 19, 2017, <https://co.monmouth.nj.us/page.aspx?ID=4248>.

²¹ "Lowering Flood Insurance Costs for Region," Connecticut Metropolitan Council of Governments, accessed January 19, 2017, <http://www.ctmetro.org/news/newsletters/newsletters-2013/flood-risk-grant-award/#.WIEqXPkrIdU>.

Watershed Management and Local Waterfront Revitalization Programs

The Canandaigua Lake Watershed Council and Conesus Lake Watershed Council are two examples of intermunicipal organizations that have been established to govern the implementation of a Watershed Management Plan. The New York State Department of State (DOS) Division of Coastal Resources works with communities throughout the state to enhance their waterfronts and watersheds. Since 1982, the Division has worked with local governments and communities to prepare Local Waterfront Revitalization Programs (LWRPs) that define a local vision for the waterfront. In recent years, the Division has focused on helping communities protect and restore their natural resources through watershed planning. Both the *Canandaigua Lake Watershed Management Plan* and *Conesus Lake Watershed Management Plan* have been approved by the DOS Division of Coastal Resources.

The Canandaigua Lake Watershed Council was formed in 1999 and consists of fourteen watershed and water purveying municipalities that implement a comprehensive watershed strategy. A fair share formula provides the funding to support a Watershed Manager. The Watershed Manager is overseen by the Council and is responsible for implementing watershed management decisions based on the goals outlined by the Watershed Management Plan. An intermunicipal agreement has been adopted every five years since 2000, most recently in 2014.

The Conesus Lake Watershed Council was established in 2003 to govern the implementation of the *Conesus Lake Watershed Management Plan*. Council membership is composed of the five towns and three villages that lie within the watershed boundaries; some are also water purveyors. The Council oversees the Watershed Management Program and the Conesus Lake Watershed Inspection Program. The Livingston County Planning Department has directed the development of the Watershed Management Plan and works very closely with local governments on land use, environmental quality, and development issues and has been successful in identifying and securing external funding and creating effective partnerships between other agencies, academic institutions, and the community.

There are opportunities to weave Watershed Management Plans, LWRPs, and other state programs such as the DEC Coastal Erosion Hazard Area (CEHA) and SPDES Phase II Stormwater Programs with the CRS. An example “crosswalk” of state laws, regulations, and standards can be found in Appendix E.

Nonprofit Organization

Schoharie Area Long Term (SALT) is disaster recovery coalition formed as a partnership of government, faith-based, social service, educational and other non-profit agencies as well as business and community organizations to provide interagency resources, advocacy, healing, and recovery support to those affected by Hurricane Irene and Tropical Storm Lee. SALT's office is located in the Village of Schoharie, which incurred the greatest damage from Irene and Lee. Ninety percent of the structures were damaged, including the Schoharie County Offices.

SALT has discussed with the Village possible collaboration on a CRS application. The Village has an estimate of \$35,000 to accomplish the requirements for CRS qualification. SALT does not have an agreement with the Village yet, as most of its resources have been severely depleted by recovery work and a majority of funding sources are very slow moving. However both the Village and SALT are still very open to a collaborative effort.²²

²² Executive Director Sarah W. Goodrich, Schoharie Area Long Term (SALT), e-mail message to author, August 5, 2015.

DRAFT

Section V – Conclusion

For most communities in New York State, flooding is a major problem that results in human hardship and economic loss. Floods are the most frequent and costly natural hazards in New York State, particularly in communities that lie within flood-prone areas or floodplains of a major water source. The lakeshore communities of the Great Lakes region are similarly vulnerable to storm surges, coastal flooding, shoreline erosion, and overdevelopment. New York's Great Lakes region has developed over time and is now positioned for great success in creating livable communities, protecting natural resources, building resilient infrastructure, and sustaining economic growth. Increasing CRS participation in the Great Lakes Basin—as well as throughout New York State—has the potential for increased flood mitigation actions and reduced flood losses. CRS is a good motivator for many communities to improve floodplain management efforts and increase awareness about flood risk. The program also provides the foundation to implement solutions rooted in green infrastructure, land use planning, and restoration opportunities, which is consistent with New York's Great Lakes Action Agenda and its climate change adaptation and resiliency goals. In addition, it helps keep money in the community through the reduction in flood insurance premiums, which is critical to creating a sustainable and vibrant economy in the Great Lakes ecosystem.

The Town of Parma in Monroe County and the Towns of Ontario and Huron and the Village of Sodus Point in Wayne County have taken part in the CRS Quick Check review and, with this report, can consider the existing and needed documentation and procedures for joining the CRS. They now have a clearer picture of whether CRS participation meets community goals.

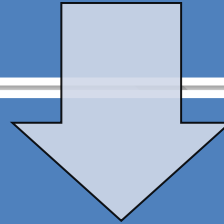
A community can request a CRS classification for any activities and elements, provided it is fully enforcing state and federal floodplain management standards as required by the NFIP and the Uniform Code of New York State. The community must be complying with floodplain development requirements to be eligible, and should contact DEC or FEMA to schedule a Community Assistance Visit to confirm that floodplain development is being done properly.

Otherwise, a clear path for moving forward in requesting CRS credit is as follows:

Next Steps

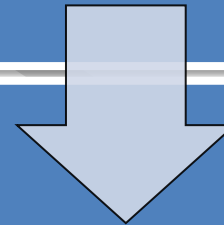
Get Organized

- Review the CRS Quick Check tool and prepare the documentation. *Determine what areas reap the most "points" relative to level of effort.*
- The community must maintain FEMA Elevation Certificates, permit records, and all Flood Insurance Rate Maps (FIRMs) for the duration of its participation in the CRS.
- Do the communities want to forge any partnerships? *Consider involving partners such as municipalities that share flooding concerns or nonprofit organizations with a similar mission to make the application request.*



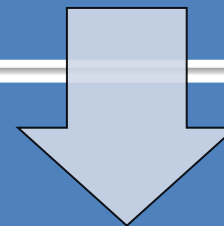
Become Committed

- Provide a letter of interest signed by the community's chief elected official to the FEMA Regional Office.
- DEC or FEMA will conduct a Community Assistance Visit (CAV). The CAV will review the community's floodplain management program to make sure it meets the Federal minimum requirements and is eligible to apply to the CRS.



Receive Certification

- The Federal Insurance Administration:
- ✓ Verifies information and community's implementation of activities,
 - ✓ Sets the credit to be granted, and
 - ✓ Notifies the community, State, insurance companies, and other appropriate parties.



Maintain and Grow

- The community must maintain records of its activities to prepare for the CRS verification visit, which occurs initially when joining and then approximately once every 5 years.
- Develop annual work plans; does the community want to apply for credit for new elements or activities, drop one or more elements or activities, or submit revised versions of materials? *Can assistance be provided at the County level, such as map information?*

Bibliography

- Connecticut Metropolitan Council of Governments. "Lowering Flood Insurance Costs for Region." Accessed January 19, 2017. <http://www.ctmetro.org/news/newsletters/newsletters-2013/flood-risk-grant-award/#.WIEqXPkridU>.
- CRS Resources. "CRS State Profile: New York." Accessed January 23, 2017. http://crsresources.org/files/200/state-profiles/ny-state_profile.pdf.
- CRS Resources. "CRS Uniform Minimum Credit New York." Accessed January 23, 2017. http://crsresources.org/files/200/umc/new_york.pdf.
- Demographics by Cubit. "New York Cities by Population." Accessed January 23, 2017. http://www.newyork-demographics.com/cities_by_population
- District Manager Lindsey M. Gerstenslager, Wayne County Soil and Water Conservation District, e-mail message to author, September 30, 2016.
- Executive Director Sarah W. Goodrich, Schoharie Area Long Term (SALT), e-mail message to author, August 5, 2015.
- FEMA Community Rating System: A Cost-Benefit Analysis for New York State Communities. Hudson Estuary Watershed Resiliency Project.
- FEMA. "Policy & Claim Statistics for Flood Insurance." Accessed January 23, 2017. <https://www.fema.gov/policy-claim-statistics-flood-insurance>.
- FEMA. "The National Flood Insurance Program Community Status Book." Accessed January 23, 2017. <https://www.fema.gov/national-flood-insurance-program-community-status-book>.
- FEMA Verification Report for the Town of Greece. October 15, 2015.
- FEMA. "Community Rating System." Accessed September 7, 2016. http://www.fema.gov/media-library-data/1458756801023-311019d76271533f6b21ce505df7bd3c/20_crs_508_apr2016.pdf.
- Monmouth County Division of Planning. "Monmouth County Community Rating System Assistance Program." Accessed January 19, 2017. <https://co.monmouth.nj.us/page.aspx?ID=4248>.
- New York Regional Planning and Development Board. "The New York State Association of Regional Councils (NYSARC), Water Resource Program." Accessed January 19, 2017. <http://www.cnyrpdb.org/NYSARCwater/?NYSARC-Water-Resource-Program-34> and [http://www.cnyrpdb.org/NYSARCwater/?The-New-York-State-Association-of-Regional-Councils-\(NYSARC\)-48](http://www.cnyrpdb.org/NYSARCwater/?The-New-York-State-Association-of-Regional-Councils-(NYSARC)-48).
- NYSDEC. "National Flood Insurance Program's Community Rating System." Accessed January 23, 2017. http://www.dec.ny.gov/docs/administration_pdf/crs.pres.pdf.

NYSDEC Dam Safety. "New York State Dams Inventory." Accessed January 23, 2017.
<http://www.dec.ny.gov/lands/4991.html>.

NYSDOS Division of Code Enforcement and Administration. "What's New." Accessed January 25, 2017.
<https://www.dos.ny.gov/DCEA/news.html>.

NYSDOS James A. Coon Local Government Technical Series. "Intergovernmental Cooperation."
Accessed January 18, 2017.
<https://www.dos.ny.gov/lg/publications/Intergovernmental%20Cooperation.pdf>.

NYSDOS James A. Coon Local Government Technical Series. "Adopting Local Laws in New York State."
Accessed January 23, 2017.
https://www.dos.ny.gov/lg/publications/Adopting_Local_Laws_in_New_York_State.pdf.

NYS Division of Homeland Security & Emergency Services. "2014 New York State Hazard Mitigation Plan." Accessed January 23, 2017 and January 30, 2017.
<http://www.dhSES.ny.gov/recovery/mitigation/documents/2014-shmp/Section-3-9-Flood.pdf>.

Parma Town Board Meeting, Tuesday, January 3, 2017. Accessed April 5, 2017.
<http://ecode360.com/documents/PA0391/public/314596734.pdf>.