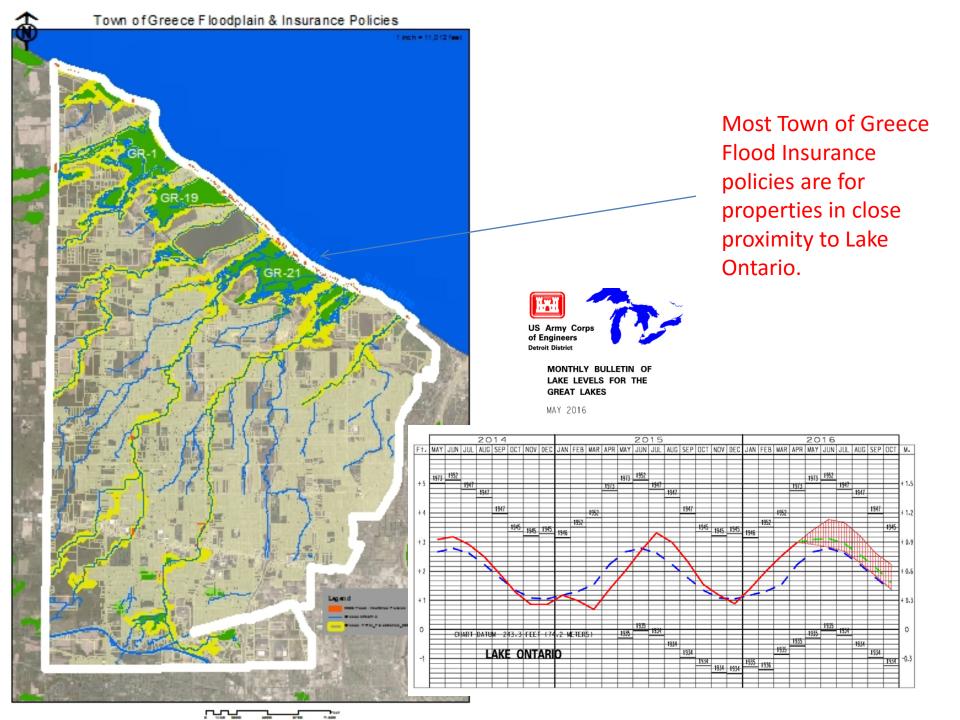
# Flood Resiliency and the Town of Greece's Community Rating System Program



John Gauthier, PE, CFM
Town of Greece

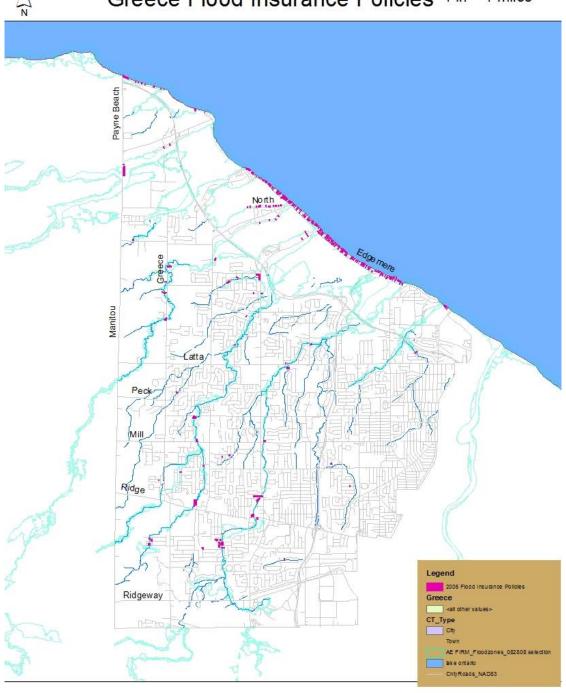
# Overview

- Town of Greece Physical Setting
- Flood Smart Project
- Improving Flood Resiliency through participation in the National Flood Insurance Program and
- The use of the Community Rating System (CRS) in improving Flood Resiliency.

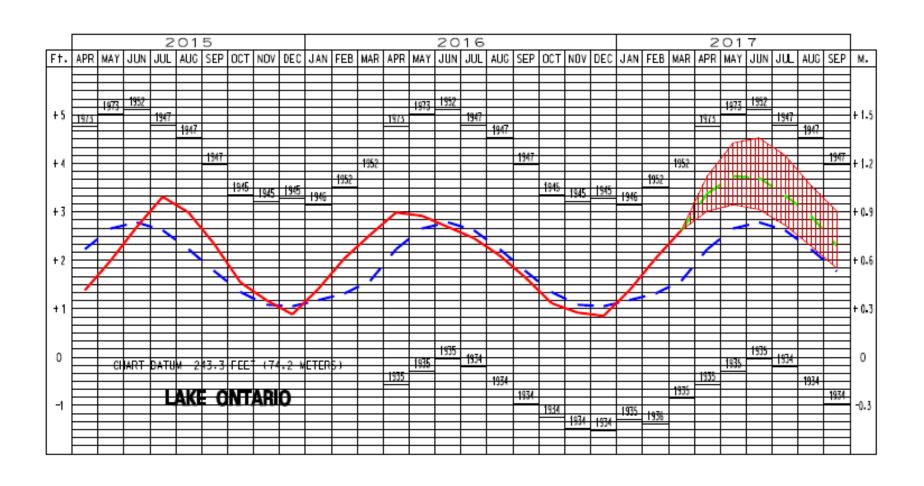




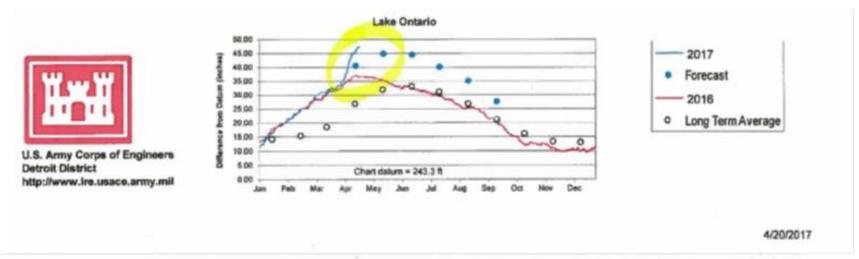
# Greece Flood Insurance Policies 1 in = 1 miles



# Lake Ontario Levels



# Lake Ontario Levels





# Lake @ 248 Ft. with Wind From NE





# Lakeshore Drive April 30th

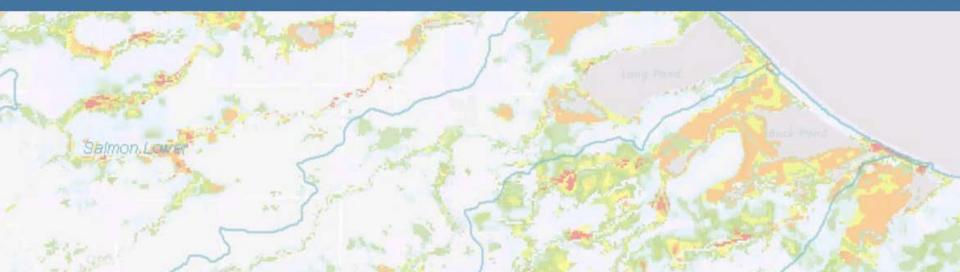






# Flood Smart Communities

Stevie Adams, The Nature Conservancy
Jayme Thomann, Genesee/Finger Lakes Regional Planning Council



- We represent a diversity of community types—from high density and commercial development to rural residential with agriculture
- We regularly experience flooding and are connected by streams that flow to the Braddock Bay Fish and Wildlife Management Area
- We have a strong history of collaboration and currently work together on Stormwater management activities through the Stormwater Coalition of Monroe County



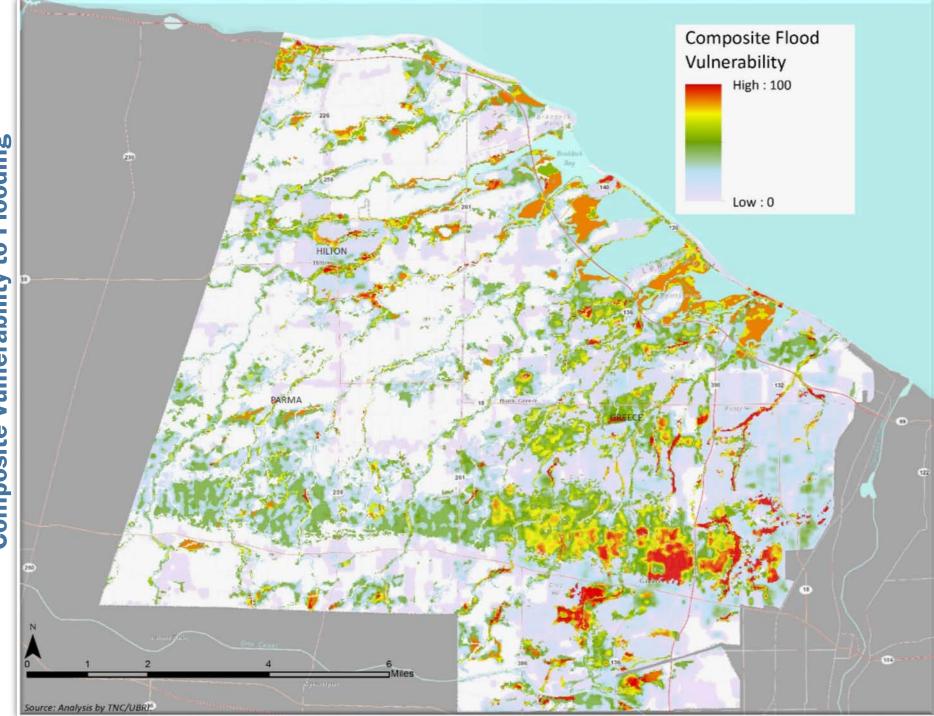












# Study Recommendations

# 1. Convene intermunicipal work group

- Meets regularly
- Is responsible for implementing the Flood Smart Action Plan
- Provides a forum for communication and information sharing
- Builds and maintains partnership and collaboration between Greece, Parma, and Hilton and upstream municipalities

# 2. Develop training requirements or program for municipal boards

- Power to protect development from the impacts of flooding
- Empower member with information

# 3. Adopt intermunicipal floodplain protection overlay district (POD)

- Acknowledges the upstream-downstream connection of communities
- Requires additional and intermunicipal review of site plans for building permits
- Includes floodplains not mapped by FEMA

# 4. Strengthen local flood damage prevention laws

- Commit to higher standards that will better protect people and assets
- Can also secure more Community Rating System points which benefits community resilience and flood insurance policy holders

# 5. Convene agricultural interests

- Strengthen relationships with agricultural interests to protect this important component of the local economy
- Reduce flooding contributions from these lands.

# Study Recommendations

# 6. Educate at-risk property owners

Help residents be more prepared so that they can respond to and recover from flooding more effectively

# 7. Prioritize and protect natural infrastructure

- Helps reduce impacts of flood events by storing water and releasing it more slowly to the stream network and groundwater
- Protect floodplains and wetlands that lie upstream of population centers so they continue to provide flood attenuation services

# 8. Share data with municipalities and the public

- Compiling GIS data and other data produced during this project
- Make info available to the public so it can used in decision making
- Improve communication by providing the same info to everyone

# 9. Utilize the Community Rating System

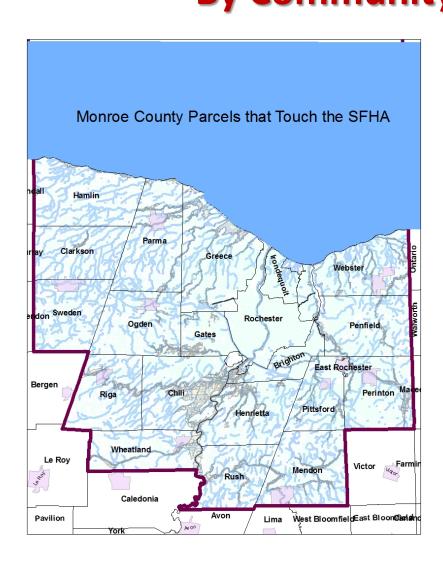
- A voluntary incentive program to exceed minimum NFIP requirements
- Improve public safety, reduce property loss, protect open space and natural resources, and recover better post-disaster
- A discount of up to 45% off flood insurance premiums

# Participation in the National Flood Insurance Program

- Participation is voluntary (non-participating communities may face sanctions that include loss of Federal aid for insurable buildings in the floodplains and homeowners will not be able to obtain conventional mortgages).
- In New York State:
  - ✓ 1471
- In Monroe County:
  - ✓ 1 City
  - √ 10 Villages
  - √ 19 Towns

All enrolled in the regular program.

# Monroe County AE Zone Properties By Community Municipality Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Parcels in Acceptable of the Policies in Force \* Policies in Force \* Policies in Force \* Policies in Force \* Policies \* P



Municipality	Flood Insurance Policies in Force *	Parcels in AE Zone**	% Policies / Parcels in AE		
Brighton	110	1131	10%		
Chili	182	1140	16%		
Churchville Village	7	88	8%		
Clarkson	7	77	9%		
East Rochester	N/A	26	N/A		
Fairport Village	7	65	11%		
Gates	336	1700	20%		
Greece	200	2501	8%		
Hamlin	82	355	23%		
Henrietta	179	1313	14%		
Hilton Village	20	116	17%		
Honeoye Falls Village	18	164	11%		
Irondequoit	265	436	61%		
Mendon	22	680	3%		
Ogden	26	447	6%		
Parma	101	997	10%		
Penfield	105	519	20%		
Perinton	60	756	8%		
Pittsford	80	968	8%		
Riga	7	207	3%		
Rochester	90	392	23%		
Rush	10	474	2%		
SCOTTSVILLE	18	111	16%		
SPENCERPORT	14	171	8%		
WEBSTER	70	2104	3%		
Webster Village	8	27	30%		
Wheatland	21	349	6%		
Total	2045	17314	12%		
	* Per FEMA 7/23/15	**2008 SFHA intersection with 2012 Monroe County Parcels			

# Local Floodplain Law Required

# **Existing Town of Greece Law**

- Based on NYSDEC model from the 1990s
- Generally allows the filling of the Floodway Fringe
- Although the basic law is relatively lenient, it is closely scrutinized with planning and engineering review

# "Higher Standard Law"

- Prohibits net Filling of Flood
   Plain
- Prohibits new buildings in the Floodplain
- Provides substantial CRS credit (1,000 points) for enactment and enforcement.

# **ELEVATION CERTIFICATE – Bottom Floor**

# FEDERAL EMERGENCY MANAGEMENT AGENCY NATIONAL FLOOD INSURANCE PROGRAM

O.M.B. No. 3067-0077 Expires December 31, 2005

### ELEVATION CERTIFICATE Important: Read the instructions on pages 1 - 7. SECTION A - PROPERTY OWNER INFORMATION For Insurance Company Use: BUILDING OWNER'S NAME BUILDING STREET ADDRESS (Including Apt., Unit, Suite, and/or Bidg. No.) OR P.O. ROUTE AND BOX NO. Company NAIC Number STATE ZIP CODE PROPERTY DESCRIPTION (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) BUILDING USE (e.g., Residential, Non-residential, Addition, Accessory, etc. Use a Comments area, if necessary.) LATITUDE/LONGITUDE (OPTIONAL) HORIZONTAL DATUM L\_\_I GPS (Type): \_\_\_ L\_\_I USGS Quad Map SOURCE: LI NAD 1983 ##" - ##' - ##.##" Or ##.#####") I NAD 1927 SECTION B - FLOOD INSURANCE RATE MAP (FIRM) INFORMATION B1. NEIP COMMUNITY NAME & COMMUNITY NUMBER B2. COUNTY NAME B3 STATE B4. MAP AND PANEL **B5. SUFFIX B6. FIRM INDEX** B7. FIRM PANEL BB. FLOOD B9. BASE FLOOD ELEVATION(S) EFFECTIVE/REVISED DATE ZONE(S) (Zone AO, use depth of flooding) B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in B9. I\_\_ FIRM Community Determined \_\_\_ Other (Describe): B11. Indicate the elevation datum used for the BFE in B9: [\_\_] NGVD 1929 [\_\_] NAVD 1988 [\_\_] Other (Describe) B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? | | Yes Designation Date: SECTION C - BUILDING ELEVATION INFORMATION (SURVEY REQUIRED) C1. Building elevations are based on: L\_\_Construction Drawings\* |\_\_\_Building Under Construction\* | |Finished Construction \*A new Elevation Certificate will be required when construction of the building is complete. Building Diagram Number \_\_\_\_\_ (Select the building diagram most similar to the building for which this certificate is being completed - see pages 6 and 7. If no diagram accurately represents the building, provide a sketch or photograph.) Elevations - Zones A1-A30, AE, AH, A (with BFE), VE, V1-V30, V (with BFE), AR, AR/A, AR/AE, AR/A1-A30, AR/AH, AR/AO Complete Items C3.a-I below according to the building diagram specified in Item C2. State the datum used. If the datum is different from the datum used for the BFE in Section B, convert the datum to that used for the BFE. Show field measurements and datum conversion calculation. Use the space provided or the Comments area of Section D or Section G, as appropriate, to document the datum conversion. Conversion/Comments Elevation reference mark used Does the elevation reference mark used appear on the FIRM? [\_\_ | Yes |\_\_ | No a) Top of bottom floor (including basement or enclosure) b) Top of next higher floor c) Bottom of lowest horizontal structural member (V zones only) ft.(m) d) Attached garage (top of slab) a e) Lowest elevation of machinery and/or equipment servicing the building (Describe in a Comments area.) ft.(m) f) Lowest adjacent (finished) grade (LAG) ft.(m) g) Highest adjacent (finished) grade (HAG) ft.(m) h) No. of permanent openings (flood vents) within 1 ft. above adjacent grade i) Total area of all permanent openings (flood vents) in C3.h. sq. in. (sq. cm) SECTION D - SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information in Sections A, B, and C on this certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001. CERTIFIER'S NAME LICENSE NUMBER TITLE COMPANY NAME ADDRESS CITY STATE ZIP CODE SIGNATURE DATE TELEPHONE

# A substantial Change!

# **Biggert - Waters Reform Act 2012**

- 24 Billion NFIP Debt to the Treasury –close to borrowing limit –increased due to Sandy.
- **Actuarial** premiums on sale of property and all non-residential structures-sometime as much as 10 fold increase.
- 2014 Homeowners Flood Insurance Affordability Act delayed implementation due to public outcry.



# **Goals of the CRS**

- Reduce flood damage,
- Strengthen and support the insurance aspects of the NFIP, and
- Encourage a comprehensive approach to floodplain management.





# **Community Responsibilities**

- Designate a CRS Coordinator
- Cooperate with the ISO/CRS Specialist
- Implement CRS activities to degree desired
- Annual recertification & documentation
- Advise FEMA and ISO of program changes
- Maintain records, and FIRM maps forever



# 263

**FORMER BANK** 

# **Program Benefits**

- Reduced flood insurance rates
- Improved flood protection
- Enhanced public safety
- Improved Resiliency
- Technical assistance
- Accurate risk assessment
- Incentive to continue proper care

CRS	Credit	*Premium Reduction				
Class	Points	IN SFHA	Outside SFHA			
1	4,500	45%	10%			
2	4,000	40%	10%			
3	3,500	35%	10%			
4	3,000	30%	10%			
5	2,500	25%	10%			
6	2,000	20%	10%			
7	1,500	15%	5%			
8	1,000	10%	5%			
9	500	5%	5%			
10	0	0%	0%			
		* Subject to several conditions				

		Current
	Community Name	Class
	Batavia, City of	7
2	Freeport, Village of	7
3	Greece, Town of	7
	Long Beach, City of	7
5	Middletown, Town of	7
	Syracuse, City of	7
	Amherst, Town of	8
8	Bayville, Village of	8
9	Bigflats, Town of	8
	Canandaigua, City of	8
11	East FishkIII, Town of	8
12	Elmira, City of	8
	Erwin, Town of	8
14	<b>Great Neck Estates, Village of</b>	8
15	Harrison, Town of	8
16	Mamaroneck, Village of	8
	Margaretville, Village of	8
18	Moravia, Village of	8
19	Niagara Falls, City of	8
20	Scarsdale, Village of	8
21	Union, Town of	8
22	Walton, Town of	8
23	Walton, Village of	8
	Wellsburg, Village of	8
	Ashland, Town of	9
26	Chemung, Town of	9
27	Chenango, Town of	9
28	Corning, City of	9
	East Rockaway, Village of	9
30	Esperance, Town of	9
	Fleischmanns, Village of	9
32	Horseheads, Town of	9
	Horseheads, Village of	9
	llion, Village of	9
	Johnson City, Village of	9
36	Southport, Town of	9

\_\_\_

# **CRS Activities and Credit**

		1	-		1		1	1	-		-	
	Elevation Certificates	Map Information Service	Outreach Projects	Flood Protection Information	Open Space Preservation	Higher Regulatory Standards	Flood Data Maintenance	Stormwater Management	Floodplain Management Planning	Drainage System Maintenance	Dams	Total Points
	c310	c320	c330	c350	c420	c430	c440	c450	c510	c540	c630	
New York												
Average												
Credit	67.3	134.8	66.1	28.4	106.0	243.7	74.1	55.0	22.9	85.1	58.7	979.2
New York %												
of												
Communities	100%	96%	85%	96%	81%	100%	85%	67%	22%	52%	100%	
National												
Average												
Credit	68	140	99	45	182	2 291	97	111	. 129	201	63	1,528
National % of												
Communities	100%	93%	89%	92%	91%	99%	90%	90%	49%	78%	91%	(

# **CRS Scoring**

	Elevation Certificates c310	Open Space Preservation c420	Higher Regulatory Standards c430	Flood Data Maintenance c440	Stormwater Management c450	Drainage System Maintenance c540	Total Points	Class
Greece 2014	112	528	219	112	150	195	1,549	8
Greece 2016	38	1,155	204	140	167	207	1,940	7

### 422.c - NFOS (Natural Functions Open Space)

NFOS1 (1822.20 Ac) — The attached spreadsheet titled "2015 Town of Greece OSP and NFOS Credit" includes a breakdown of which OSP parcels are claimed for NFOS1 credit. NFOS1 credit is also labelled on the attached "2015 Town of Greece OSP Impact Adjustment Map", adjacent to the associated blue "OSP ID" number.

Calculations - GIS analysis resulted in the following values and calculations:

rNFOS1 (.64) =  $\frac{\text{aNFOS1 (1822.2)}}{\text{aSFHA (2851.66 Ac)}}$ 

cNFOS1 (109) = [rNFOS1 (.64) x 170]

### Discussion -

- Over half of Greece's NFOS1 acreage lies in the NYSDEC Braddock Bay Wildlife Management Area, managed
  under the Braddock Bay WMA Management Plan. The Braddock Bay area is a regionally significant wildlife
  habitat, especially in terms of migratory song birds, waterfowl, and raptors. The WMA is managed to maintain
  the existing wetland habitat and hydrologic regime. The WMA Management Plan is attached, along with a map
  of the WMA.
- The Town of Greece partners with NYSDEC to manage the Braddock Bay WMA. A number of town-owned
  properties are managed under the WMA plan, including the Bisig and Buttonwood parcels which are included in
  the aOSP with NFOS credits. These properties were purchased by the town with New York State Environmental
  Protection Fund open space grant money, which restricts development indefinately.
- Several hundred acres are maintained in their natural state under the Town of Greece Stormwater Management
  Plan. These riparian buffers and regional stormwater management facilities are maintained in their natural
  state specifically for the intent of mitigating flood hazards and maintaining water quality. Note that certain
  stormwater facilities (#30 Ridgemont Estates pond for instance) are claimed for OSP credit but not for NFOS
  credit; these particluar parcels are managed for flood control and water quality purposes but are mowed
  regularly and therefore are not maintained in a "natural state".
- A portion of the NFOS1 acreage is managed to be retained in its natural state under the town's 2015 Parks
  Master Plan. The Parks Master Plan recommended no improvements in the OSP portions of any town parks.
  OSP portions of parks like Badgerow Park and Sawyer Park will continue to be maintained in their natural state,
  as they have been for decades. Note that other parks (#5 Goodwin Park fo instance) are claimed for OSP credit
  but not for NFOS credit because OSP portions of that park are mowed regularly and therefore are not
  maintained in a "natural state".
- A portion of the NFOS1 acreage is owned or managed by the Monroe County Parks Department and maintained in its natural state.
- A portion of the NFOS1 acreage is owned and maintained as a nature preserve by the Genesee Land Trust.
   Genesee Land Trust is a non-profit organization whose mission is to preserve sensitive environmental lands. For more information visit <a href="http://geneseelandtrust.org">http://geneseelandtrust.org</a>

