Save the Sound®

A program of
Connecticut Fund for the Environment

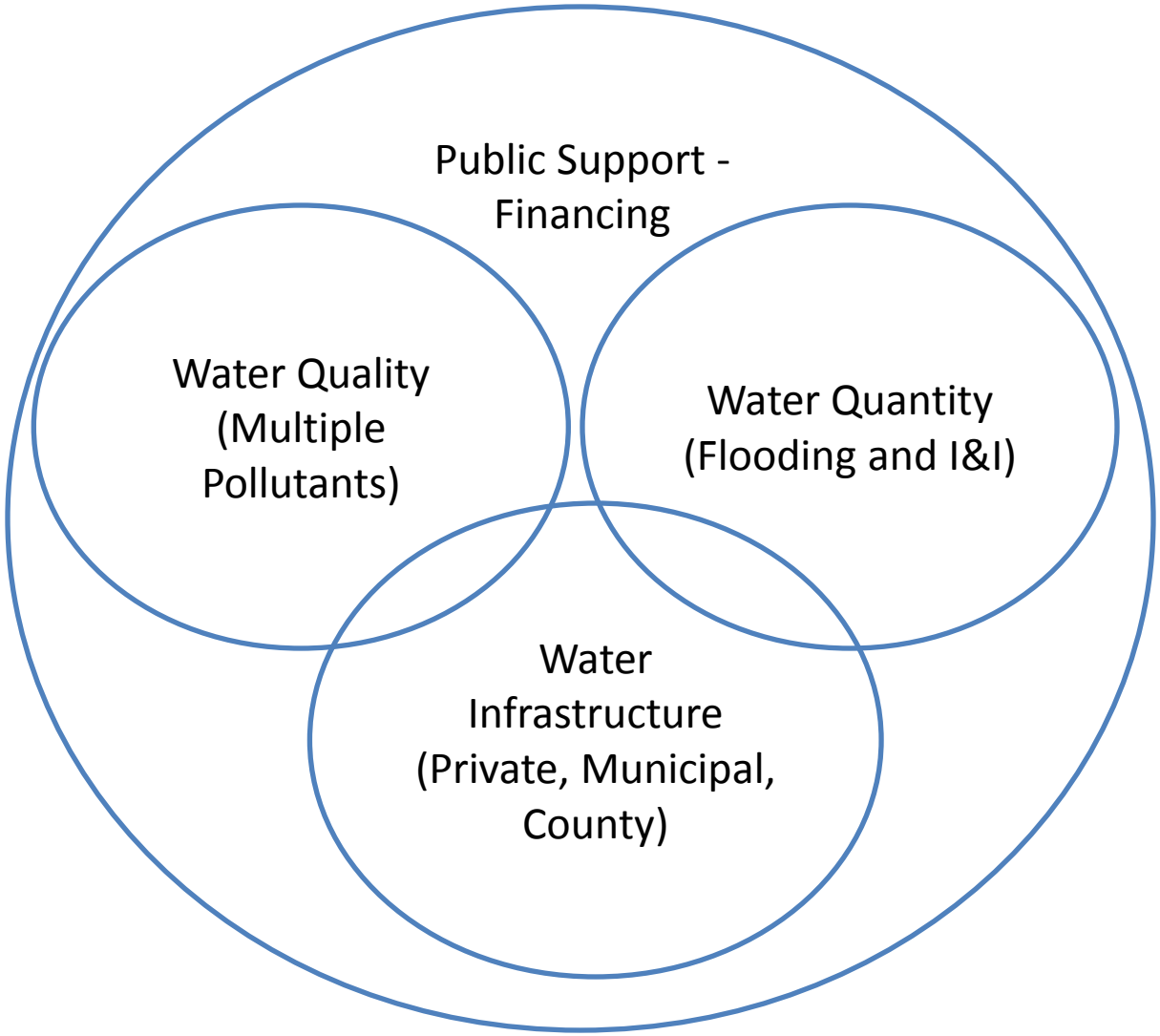
Village of Mamaroneck

12/3/14

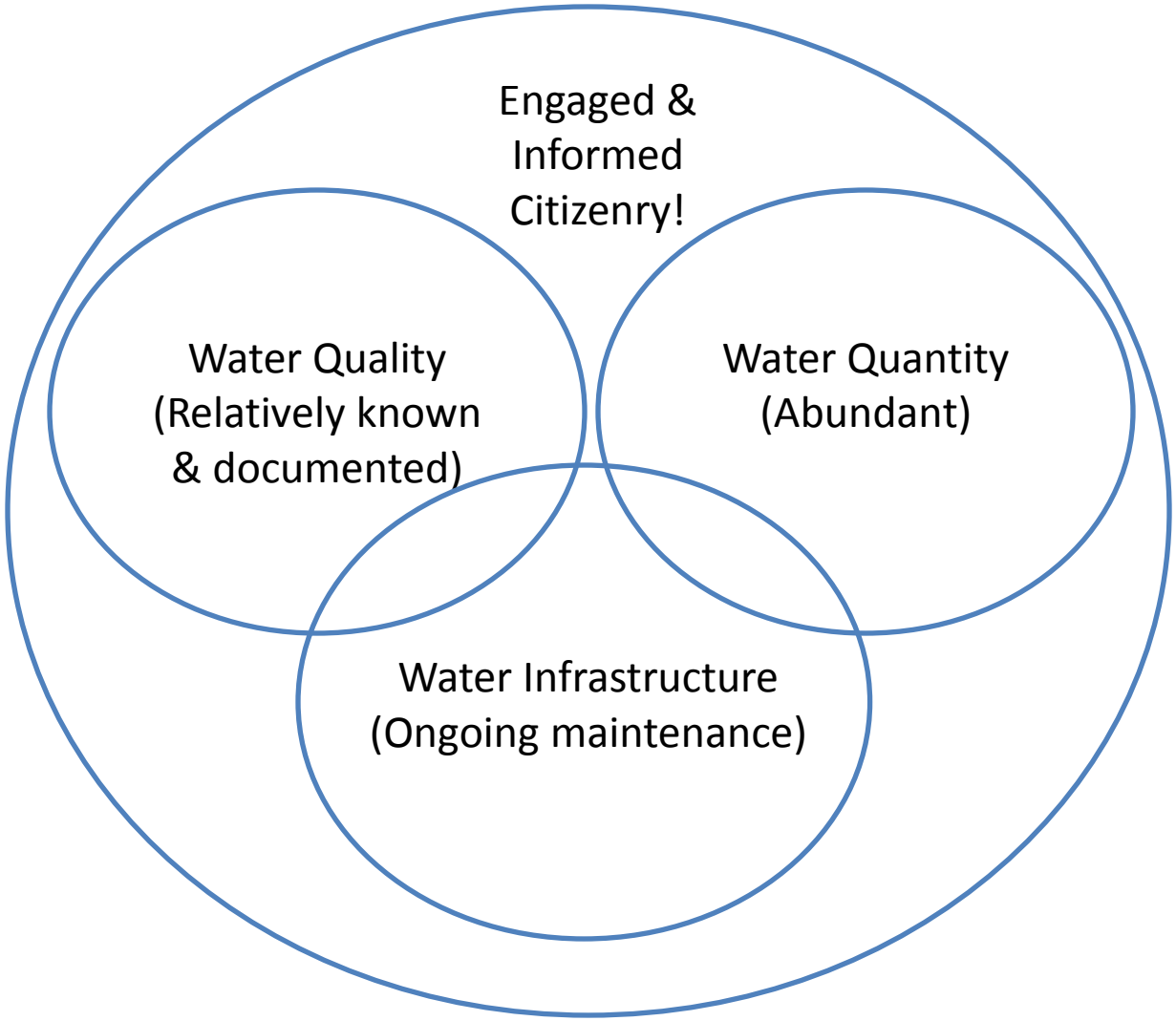
Topics

- Water Stewardship Overview
- Impaired Waters of the V.O.M.
- Save the Sound Water Quality Data
- Recommendations

Water Stewardship Challenges



Water Stewardship Opportunities



The Players: Who is testing our waters?

- NY State Dept. of Env'l Conservation (DEC)
  - Impaired Waterbodies Assessment; enforcement
- US Env'l Protection Agency (EPA)
  - MS4 permit compliance
- Village of Mamaroneck & Consultants
  - MS4 compliance
- Westchester County Department of Health
  - Beach management; drinking water
- Save the Sound
  - Public education; pollution track-down
- Citizens
  - Private and/or public use; education

Impaired Waterbodies List (DEC) 303(d) (EPA)

- Waterbody Assessment Document
  - Data from DEC and *outside sources*
  - Influences state & federal funding decisions $$
  - 303(d) is updated every 2 years (2016)
  - DEC WQ assessments cycle is every 5 years (2015)

Village of Mamaroneck
Known Pollution Impairments

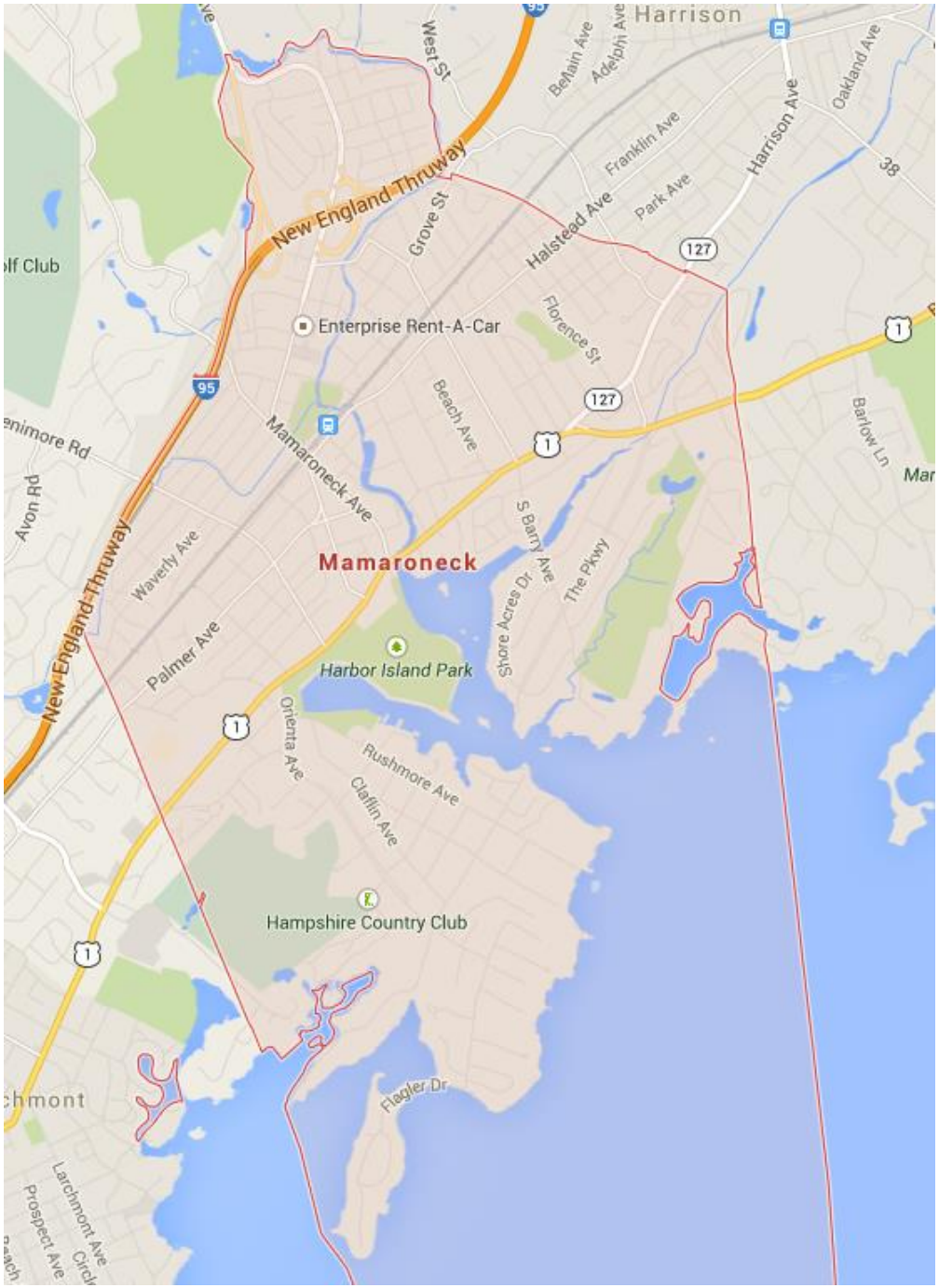
Source: 303(d) List submitted to EPA by NYS DEC 2014

Mamaroneck Harbor
Pathogens & Floatables

Larchmont Harbor
Pathogens & Floatables

Mamaroneck River (lower)
Pathogens, Floatables, PCBs

Sheldrake River & tribs
Floatables, Pesticides



Village of Mamaroneck *Suspected* Pollution Impairments

Source: 303(d) List submitted to EPA by NYS DEC 2014

Mamaroneck Harbor
DO, Nutrients, Oil & Grease, PCBs

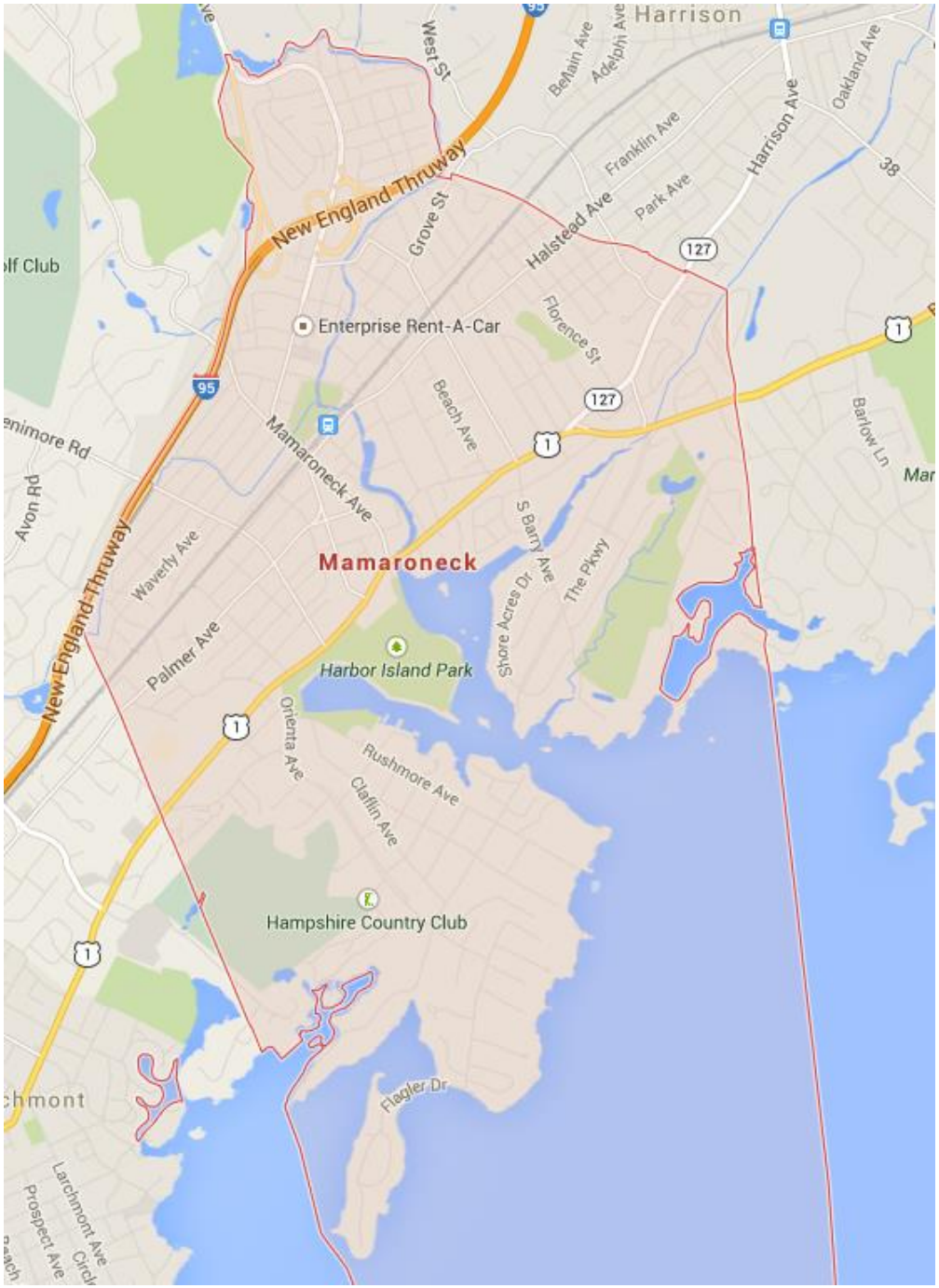
Larchmont Harbor
DO, Nutrients, Oil & Grease, PCBs

Mamaroneck River (upper & Lower)
DO, Nutrients, Silt/Sediment

Sheldrake River & tribs
Pathogens, DO, Nutrients, Silt/Sediment

Beaver Swamp Brook
Pathogens, Nutrients, Silt/Sediment

Otter Creek/Mill Pond & tidal tribs
*Unassessed



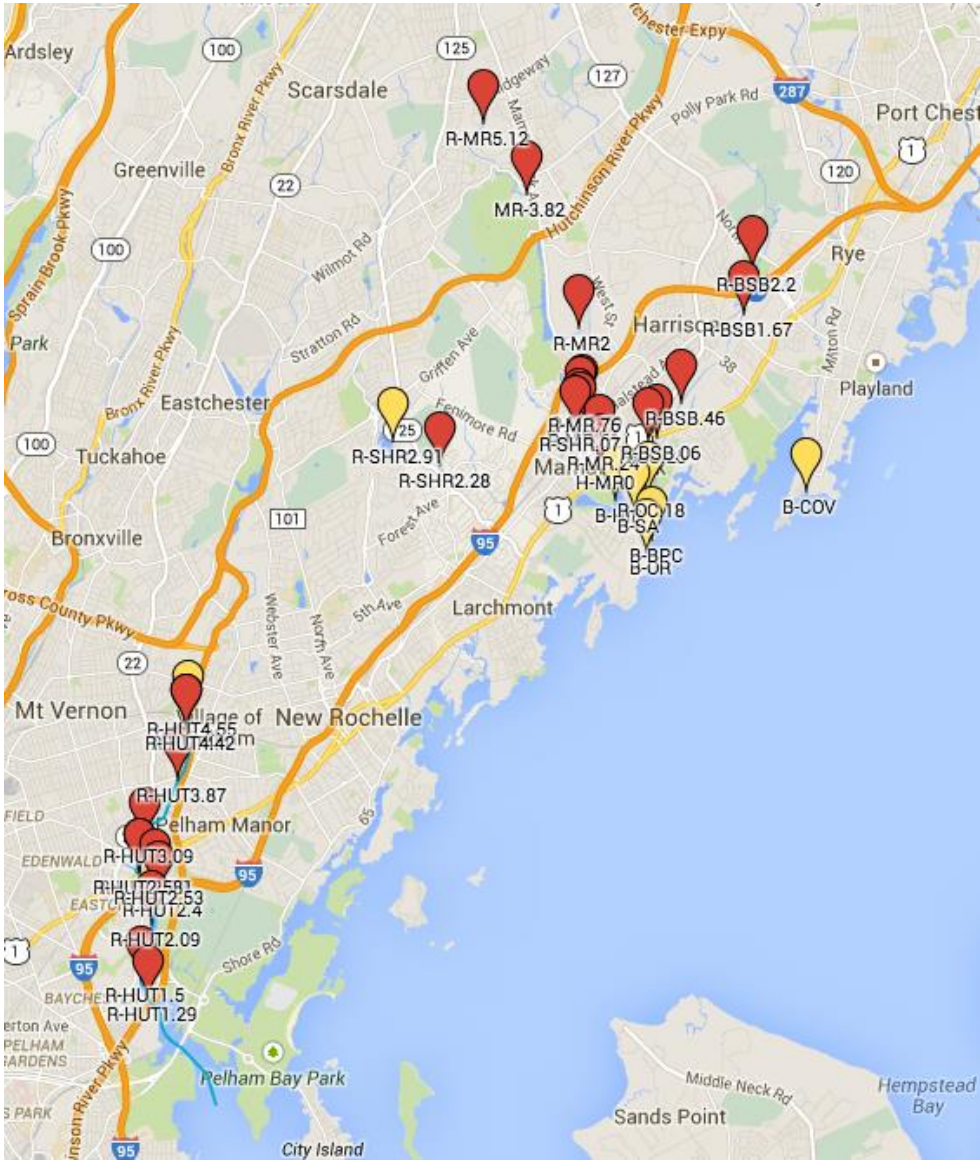
Save the Sound WQ Study

- Started in 2013
- June – September
- Testing for fecal-indicating bacteria
  - Fecal coliform
  - Enterococcus

- Data online www.savethesound.org
  - Online Water Quality database launching in 2015

Save the Sound WQ Study

- 2014 collected 200+ samples
- 44 unique sites
- 22 citizen volunteers & watchdogs
- Testing in Mamaroneck Harbor watershed and Hutchinson River



Westchester Beaches with Pathogen/Bacteria Pollution:

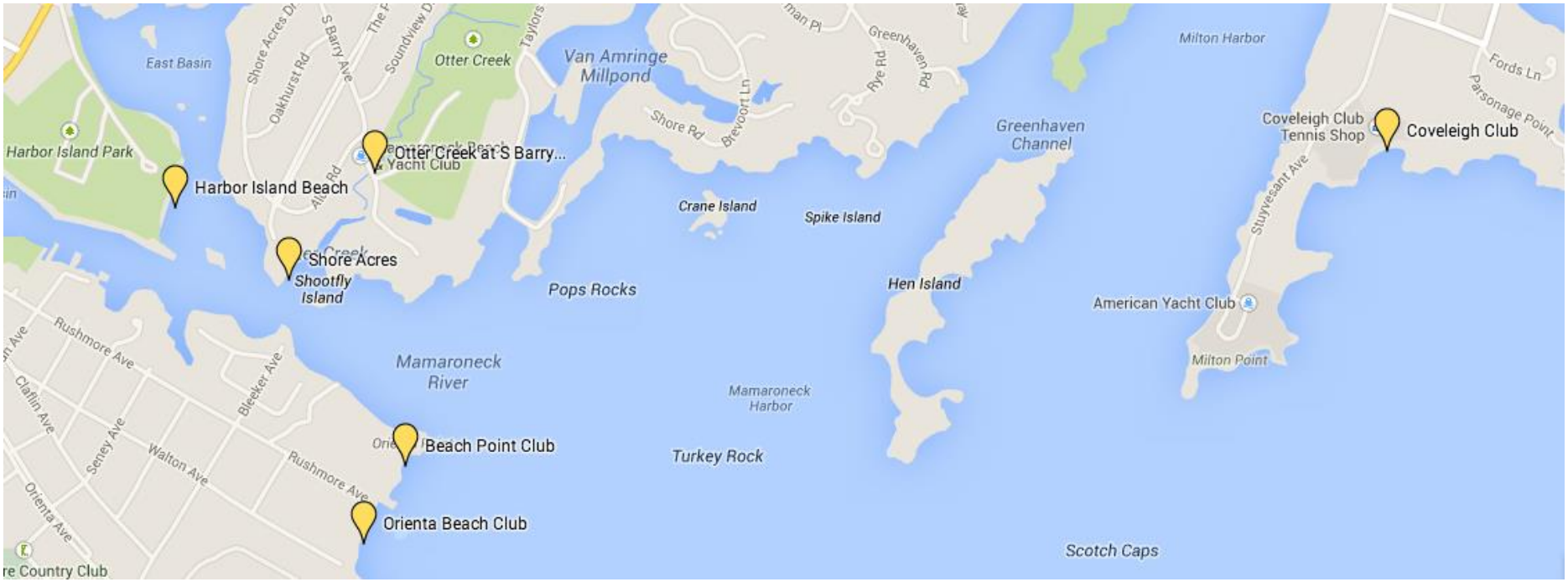
Source: Westchester County Department of Health

1. Harbor Island
2. Beach Point Club
3. Mamaroneck Beach & Yacht Club
4. Shore Acres Point Club
5. Orienta Beach Club
6. Coveleigh Club
7. Davenport Club
8. Greentree Club
9. Echo Bay Yacht Club
10. Hudson Park Beach

Beaches

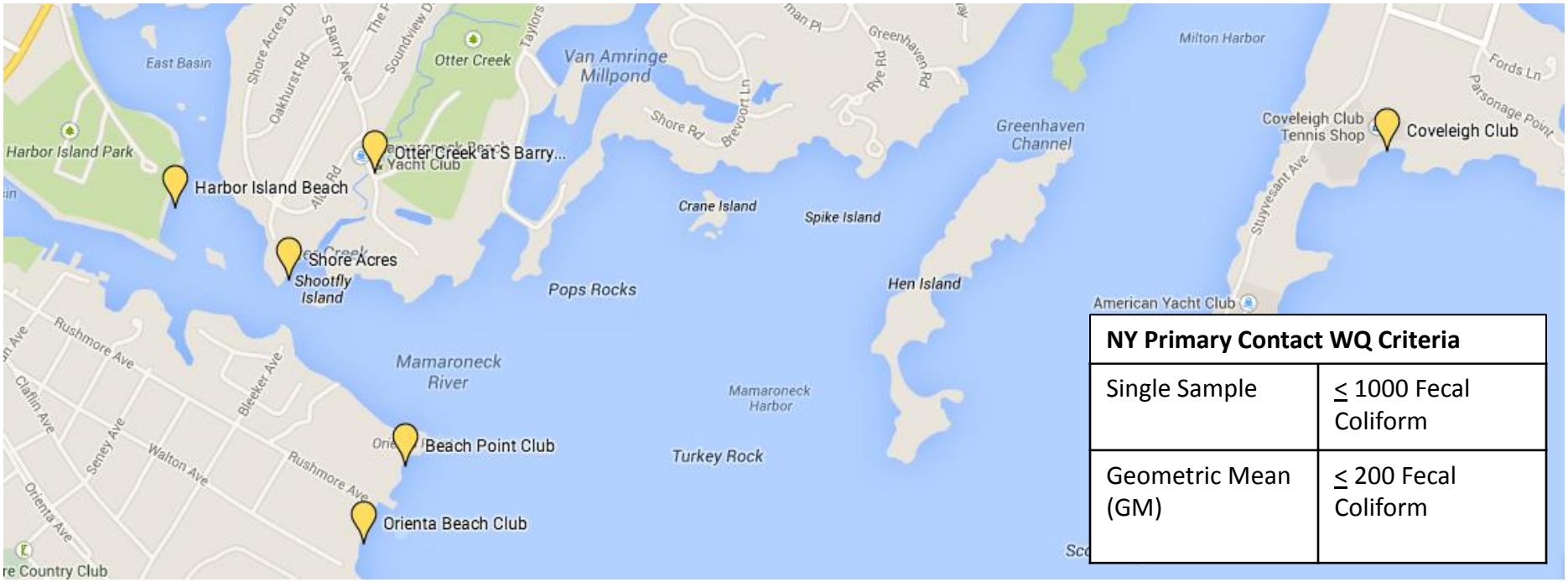
Site Name	% Fail	% Pass
Coveleigh Club	0%	100%
Orienta Beach	9%	91%
Beach Point Club	18%	82%
Harbor Island Beach	18%	82%
Shore Acres	27%	73%

- 11 samples each site
- 4 wet days, 7 dry days



Beaches

Site Name	% Fail	% Pass	Max / Min fecal coliform
Coveleigh Club	0%	100%	116 / 1
Orienta Beach	9%	91%	288 / 32
Beach Point Club	18%	82%	1260 / 1
Harbor Island Beach	18%	82%	1260 / 72
Shore Acres	27%	73%	4300 / 8

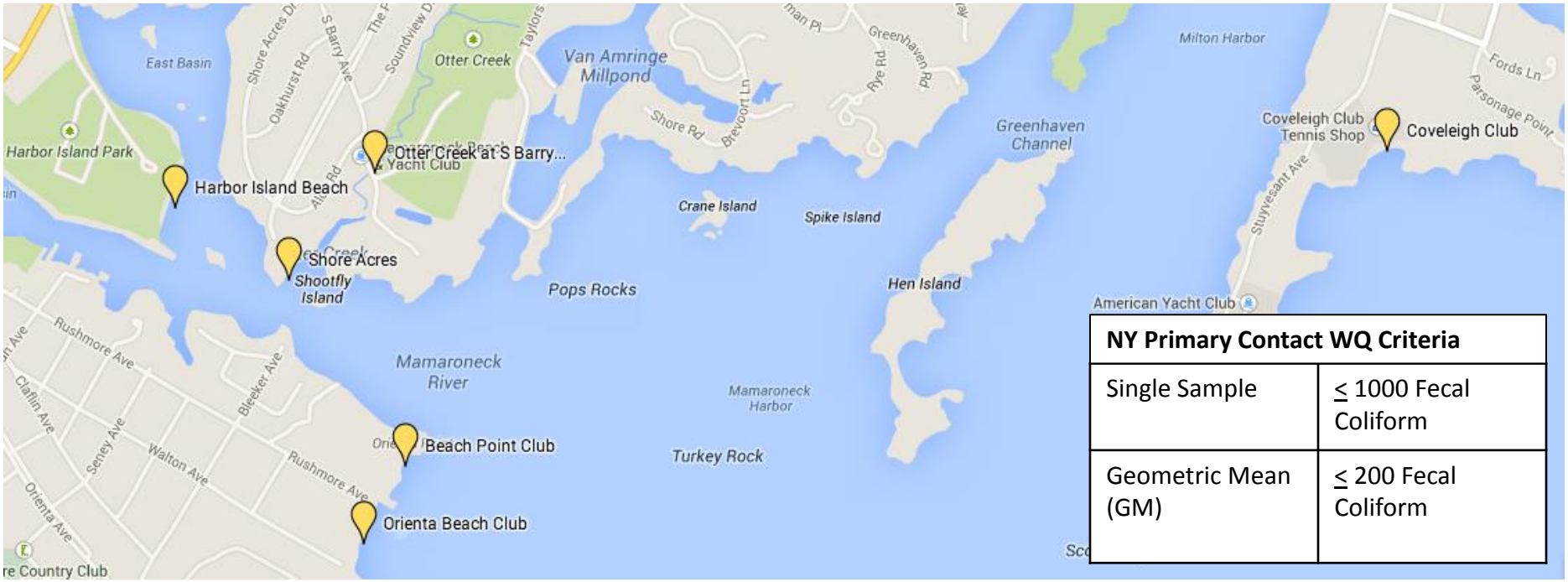


NY Primary Contact WQ Criteria	
Single Sample	≤ 1000 Fecal Coliform
Geometric Mean (GM)	≤ 200 Fecal Coliform

Beaches

Site Name	% Fail	% Pass	Max / Min fecal coliform	GM Average fecal coliform
Coveleigh Club	0%	100%	116 / 1	21
Orienta Beach*	9%	91%	288 / 32	113
Beach Point Club	18%	82%	1260 / 1	13
Harbor Island Beach*	18%	82%	1260 / 72	212
Shore Acres	27%	73%	4300 / 8	207

* 1 dry weather failure

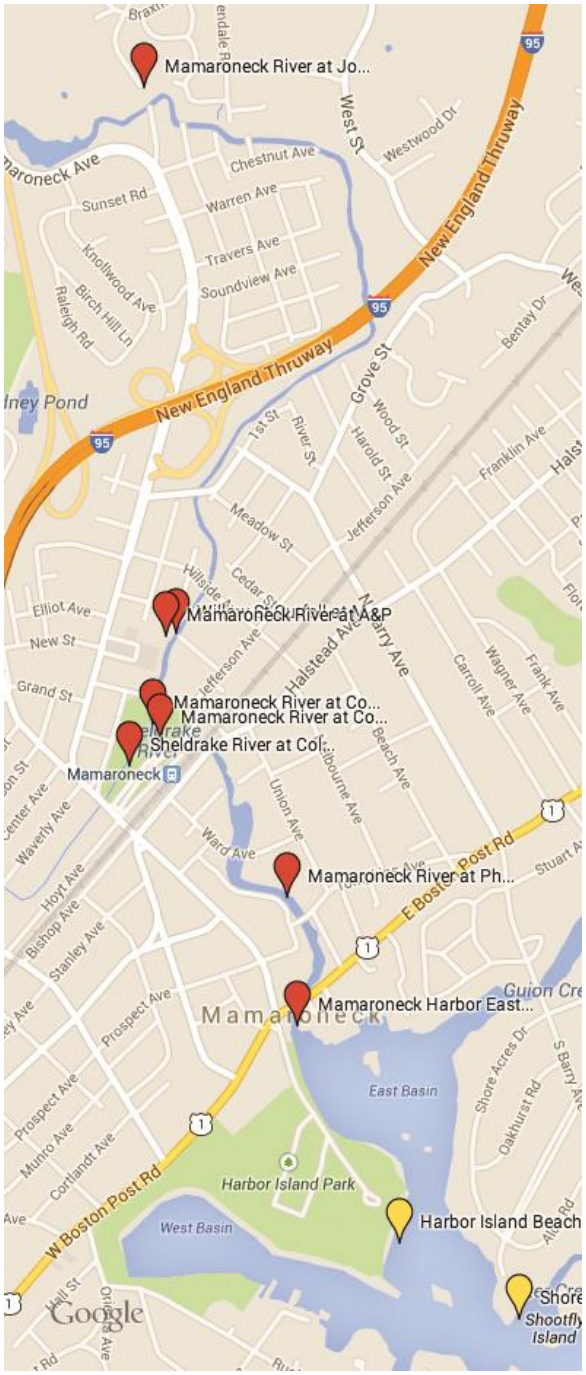


NY Primary Contact WQ Criteria	
Single Sample	≤ 1000 Fecal Coliform
Geometric Mean (GM)	≤ 200 Fecal Coliform

Mamaroneck River

Site Name	Total #	% Fail	% Pass
Mamaroneck River at Reynal Rd	7	29%	71%
Mamaroneck River at Saxon Woods Rd	6	33%	67%
Mamaroneck River at Joint Water Works	8	0%	100%
Mamaroneck River at A&P	9	22%	78%
Mamaroneck River at Columbus Park upstream	9	11%	89%
Mamaroneck River at Columbus Park downstream	8	25%	75%
Mamaroneck River at Phillips Park Rd	10	20%	80%
Mamaroneck Harbor	7	57%	43%

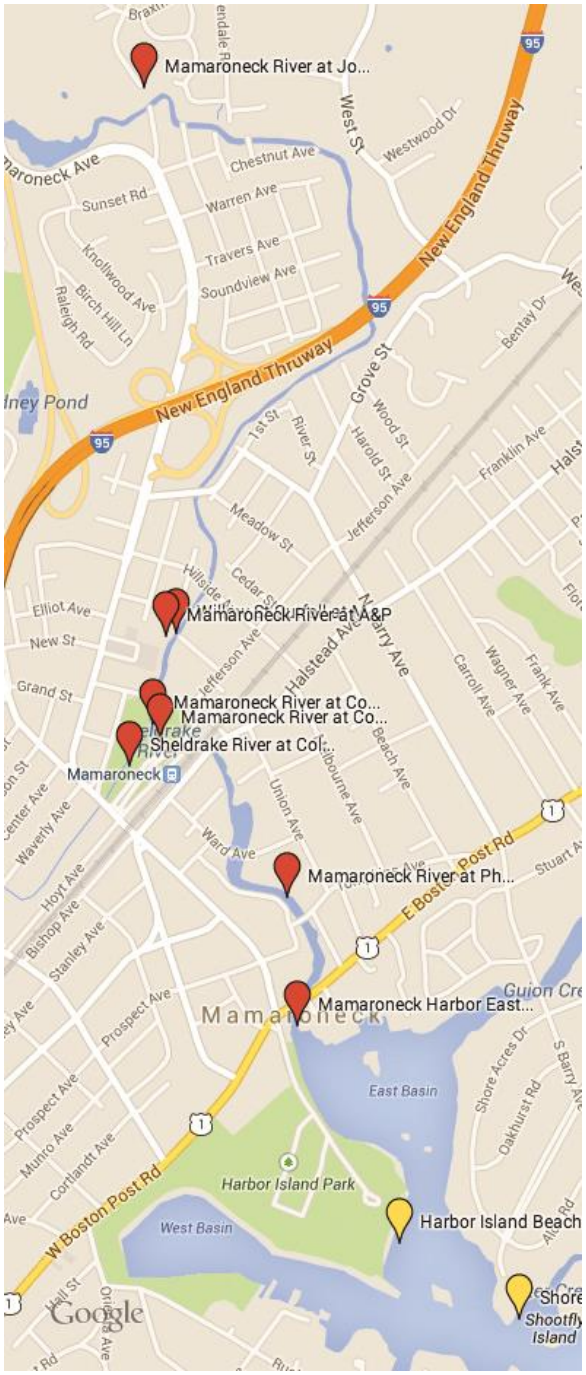
NY Primary Contact WQ Criteria	
Single Sample	≤ 1000 Fecal Coliform
Geometric Mean (GM)	≤ 200 Fecal Coliform



Mamaroneck River

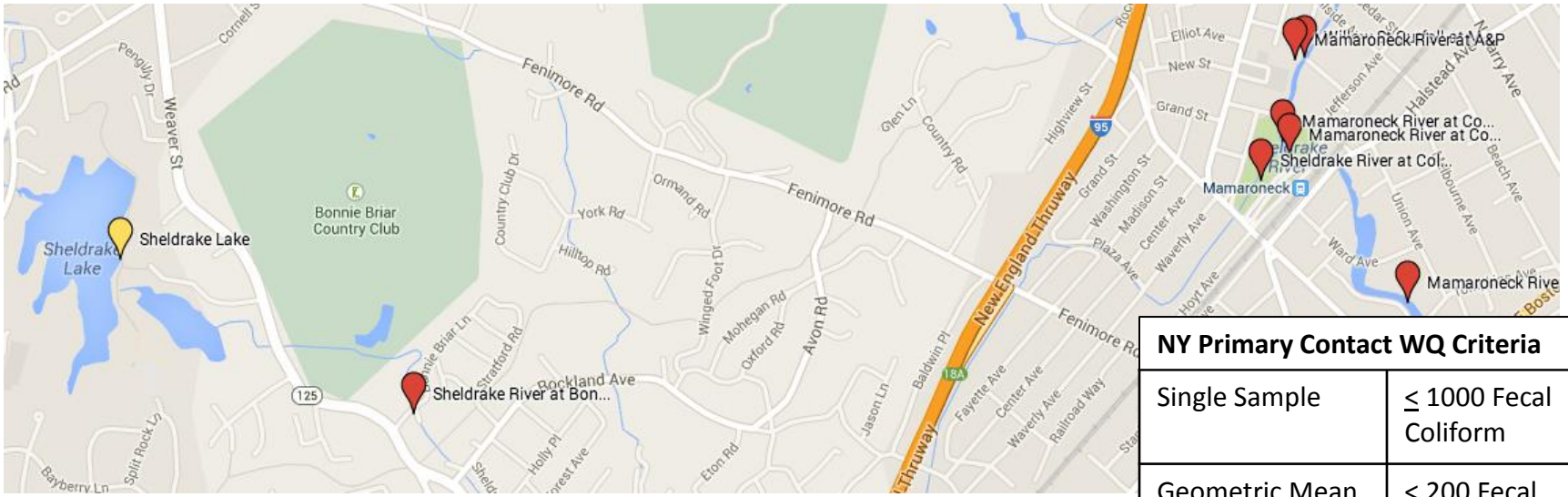
Site Name	Total #	% Fail	% Pass	Max / Min	GM
Mamaroneck River at Reynal Rd	7	29%	71%	2900 / 80	573
Mamaroneck River at Saxon Woods Rd	6	33%	67%	1500 / 350	701
Mamaroneck River at Joint Water Works	8	0%	100%	590 / 150	386
Mamaroneck River at A&P	9	22%	78%	2900 / 210	615
Mamaroneck River at Columbus Park upstream	9	11%	89%	4500 / 160	533
Mamaroneck River at Columbus Park downstream	8	25%	75%	7100 / 380	853
Mamaroneck River at Phillips Park Rd	10	20%	80%	5500 / 300	725
Mamaroneck Harbor	7	57%	43%	4000 / 52	1141

NY Primary Contact WQ Criteria	
Single Sample	≤ 1000 Fecal Coliform
Geometric Mean (GM)	≤ 200 Fecal Coliform



Sheldrake River

Site Name	Total #	% Fail	% Pass	Max / Min	GM
Sheldrake Lake	5	20%	80%	1700 / 100	191
Sheldrake River at Bonnie Briar Lane	7	29%	71%	1900 / 490	700
Sheldrake River at Columbus Park	8	25%	75%	2600 / 430	827
Mamaroneck River at Columbus Park downstream	8	25%	75%	7100 / 380	853

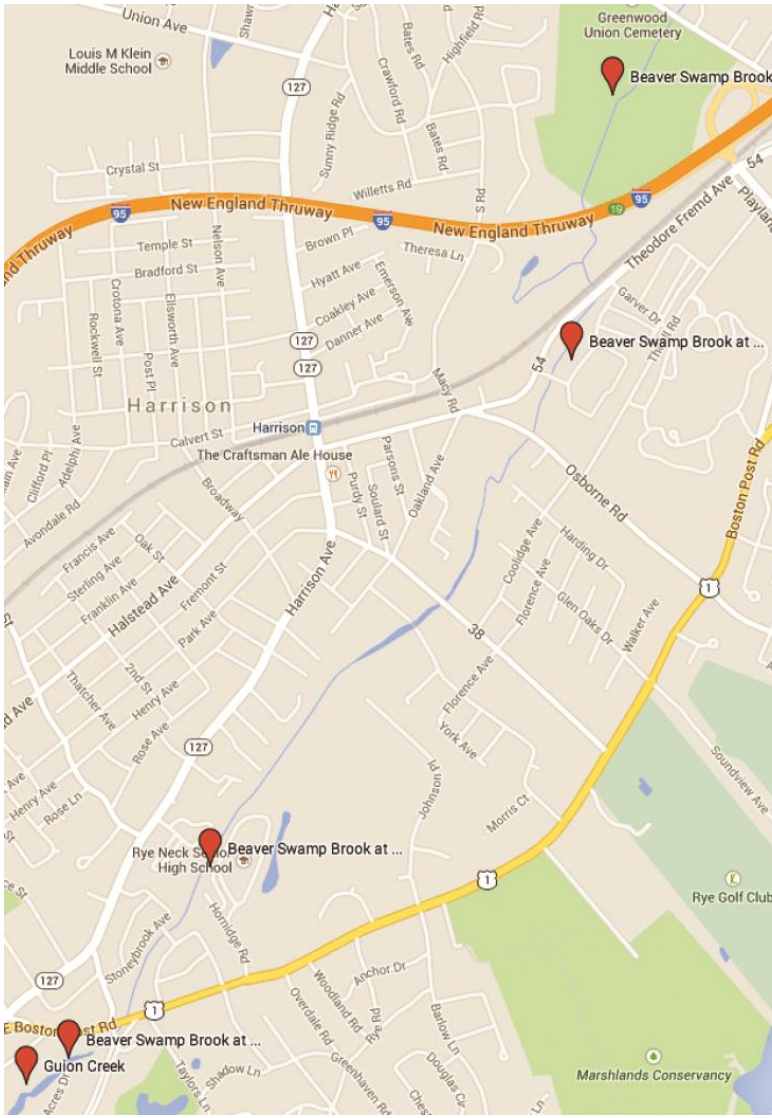


NY Primary Contact WQ Criteria	
Single Sample	≤ 1000 Fecal Coliform
Geometric Mean (GM)	≤ 200 Fecal Coliform

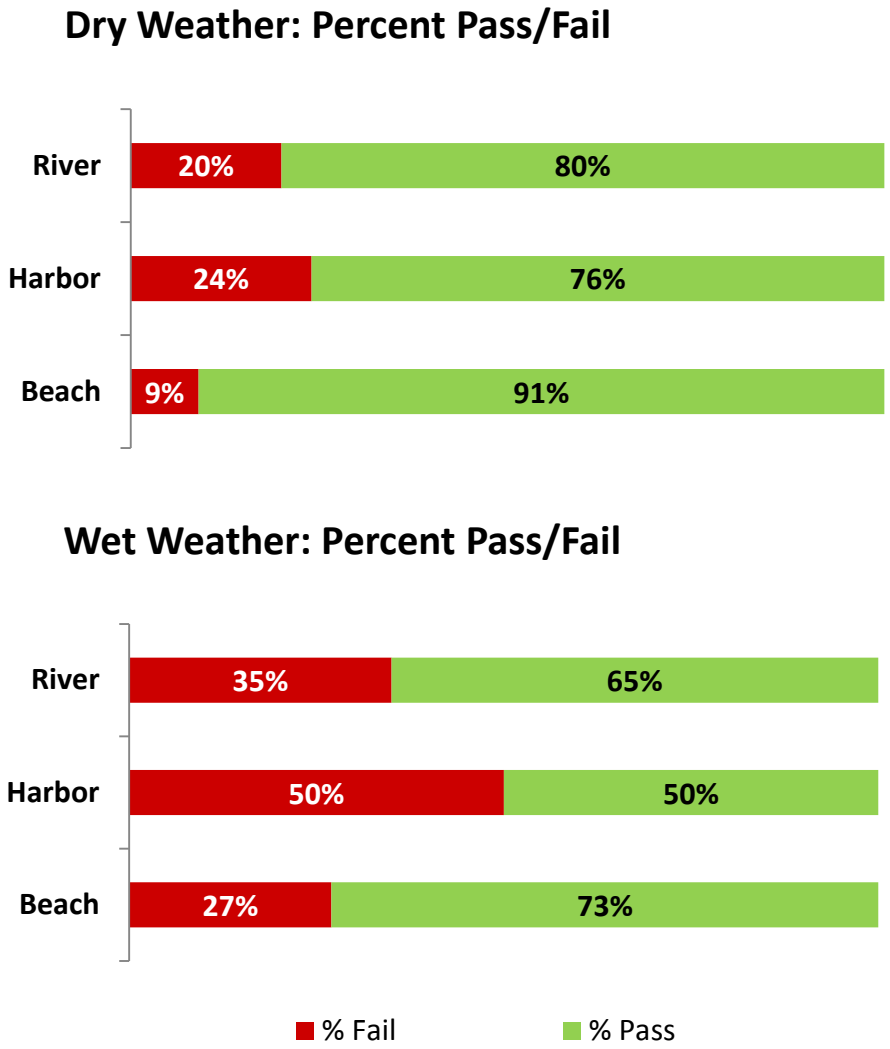
Beaver Swamp Brook - Guion Creek

Site Name	Total #	% Fail	% Pass	Max / Min	GM
Beaver Swamp Brook, Greenwood Cemetery	2	0%	100%	290 / 240	
Beaver Swamp Brook at Truxton St	6	33%	67%	4200 / 160	790
Beaver Swamp Brook at Rye Neck HS	5	80%	20%	15,000 / 800	3398
Beaver Swamp Brook at Boston Post Rd	5	80%	20%	2500 / 540	1447
Guion Creek	4	100%	0%	3700 / 1600	2589

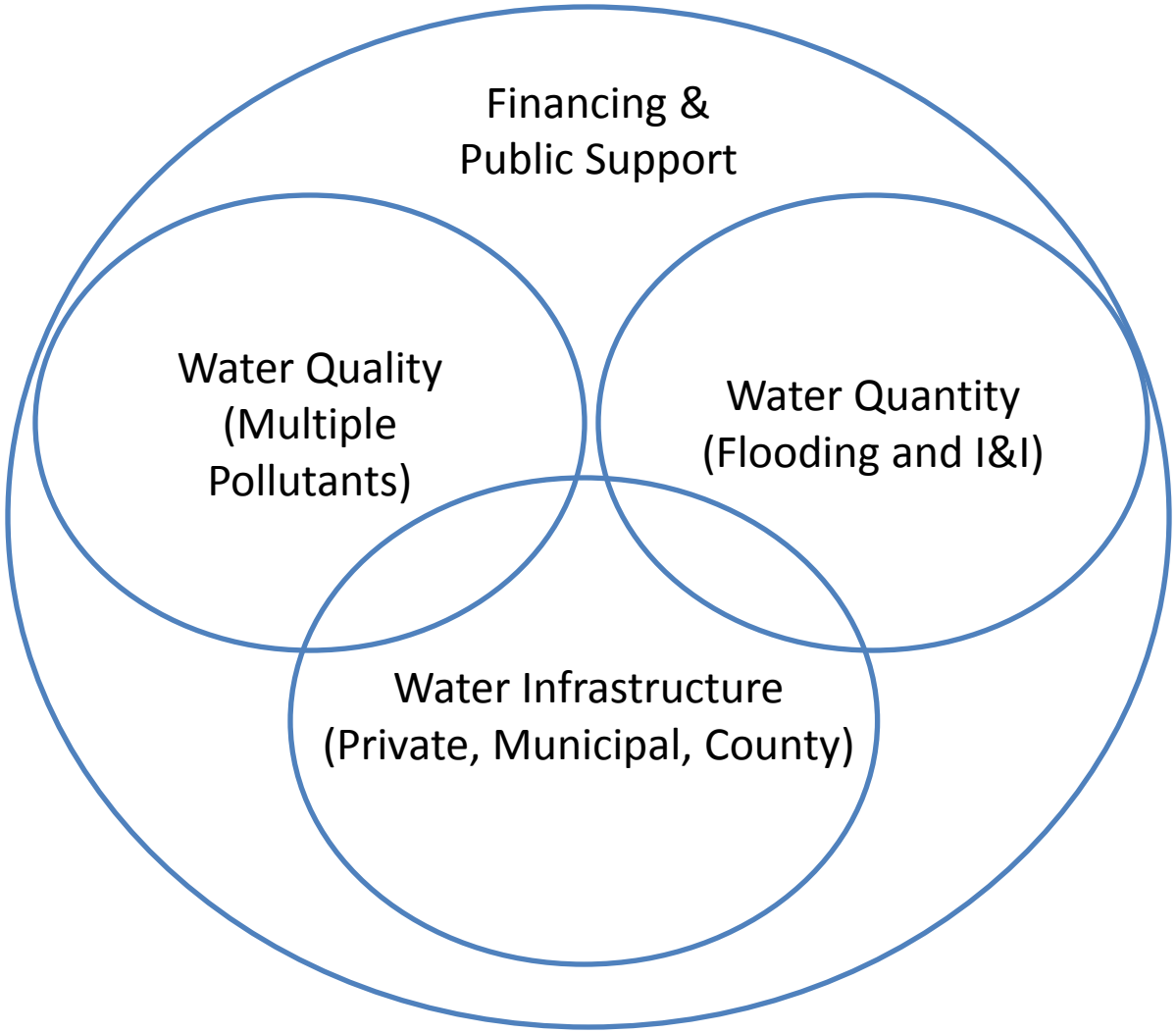
NY Primary Contact WQ Criteria	
Single Sample	≤ 1000 Fecal Coliform
Geometric Mean (GM)	≤ 200 Fecal Coliform



Wet Weather Impact on Water Quality



Water Stewardship Challenges



Recommendations

1. Collect and Publish Data
   - Update the NY State Water Quality Assessment
   - Apply for 303(d) listing where appropriate
   - Publish data online (STS/VOM)

Recommendations

1. Collect and Publish Data

Outcomes:

- Educate Public
- Educate Regulators
- Identify & eliminate pollution sources
- Drive investment in infrastructure→ Reduce sewage overflows → Cleaner Water!

Recommendation

2. Address private sewer infrastructure
   - Create a Private Sewer Lateral Program

Recommendation

2. Address private sewer infrastructure

Outcomes:

- Educate Public
- Create a cost effective and quick mechanism for private repairs
- Reduce Inflow & Infiltration, and Exflow
- Reduce sewage overflows → Cleaner Water!

Recommendations

3. Create a local water infrastructure funding source

- Institute a local Water Use Fee that is *dedicated* to water infrastructure maintenance

Recommendations

3. Create a local water infrastructure funding source

Outcomes:

- Save money (repairs are more costly than maintenance)
- Reduce sewage overflows → Cleaner Water!

Recommendations

4. Use Green Infrastructure in Flooding Planning
   - Preserve and protect all remaining marshlands and wetlands
   - Install green infrastructure instead of grey

Recommendations

4. Use Green Infrastructure in Flooding Planning

Outcomes:

- Save money
- GI cleans water as well as slowing it down → Cleaner Water!

Be a Pollution Watchdog

Contact Save the Sound

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Thank You!

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