



Department of
Environmental
Conservation

Council of Infrastructure Financing Authorities

2020 SRF Workshop Online Edition

Asset Management

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December 7, 2020



Agenda

Purpose

Provide an overview of the progress of NY's Asset Management Pilot Program (Phase I) for wastewater infrastructure and the proposed approach to the Phase II Pilot.

Outcome

- Familiarity with Asset Management.
- Understanding of NY's planned next steps.

Terminology

What is Asset Management?

Asset management is a **tool** that municipalities can use to manage current and plan for future infrastructure investment.

What is an asset?

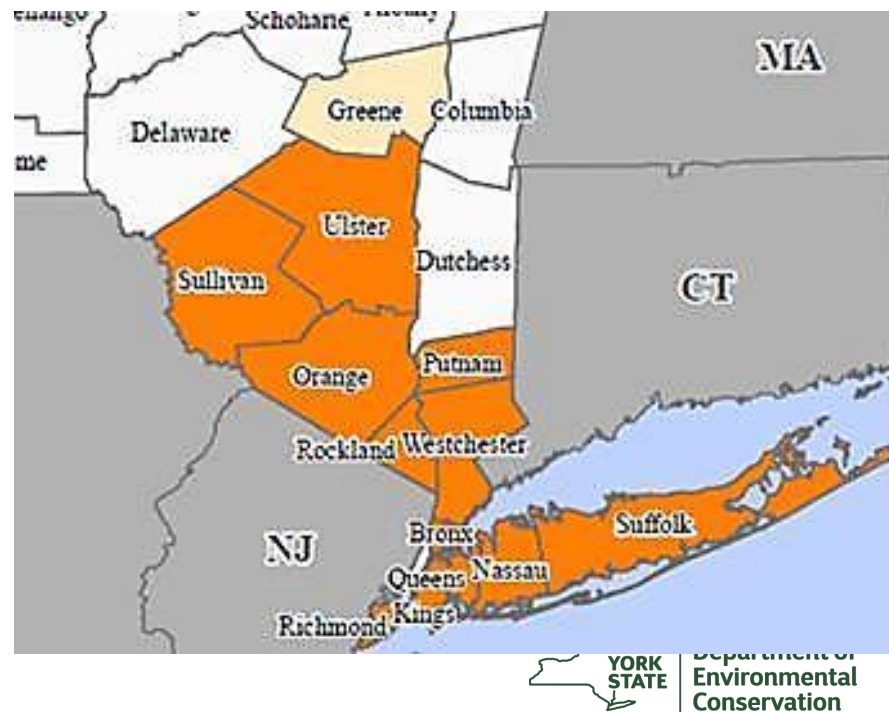
An asset is any component that is necessary for the **conveyance** or **treatment** of wastewater.



Phase I Background

Drivers for Asset Management

- In 2011, NY experienced two extreme weather events: Hurricane Irene and Tropical Storm Lee. Both occurred within 2 weeks of each other with significant impacts in upstate/central NY.
- In 2012, the NY Metropolitan area and Hudson River Valley (~14 million in NY alone) was severely impacted by Superstorm Sandy. Congress appropriated \$60B to assist with recovery



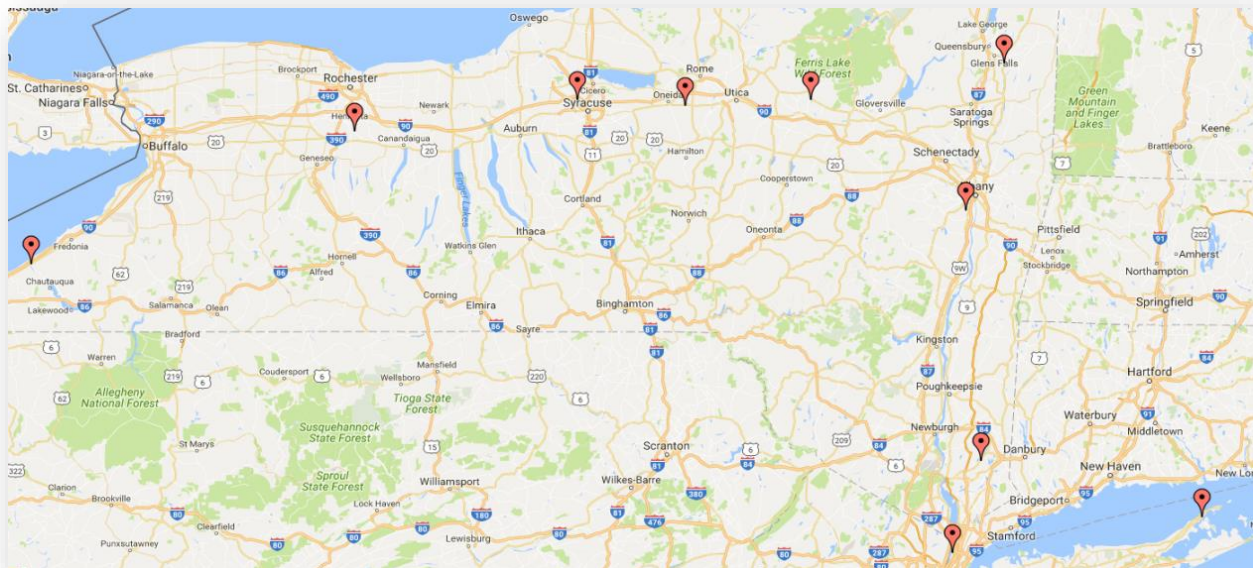
Drivers for Asset Management

- 2100 Commission was formed by Governor Cuomo to evaluate vulnerabilities in critical infrastructure, including wastewater, and recommended actions to improve their strength and resiliency against extreme weather events
- Commission recommended the state should assist with the development of asset management plans



Participants Selected for Phase I

Municipality
Town of Bethlehem
Town of Carmel
Village of Dolgeville
Village of Greenport
Village of Honeoye Falls
Onondaga County
Village of Vernon
Washington County
Village of Westfield
City of Yonkers



Key Outcomes of Asset Management

- Saves municipalities money
- Reduces rate of non-compliance
- Promotes resilience
- Reduces risk of emergency conditions
- Improves transparency to rate payers
- Supports municipal decision making
- Protects State water grant investments



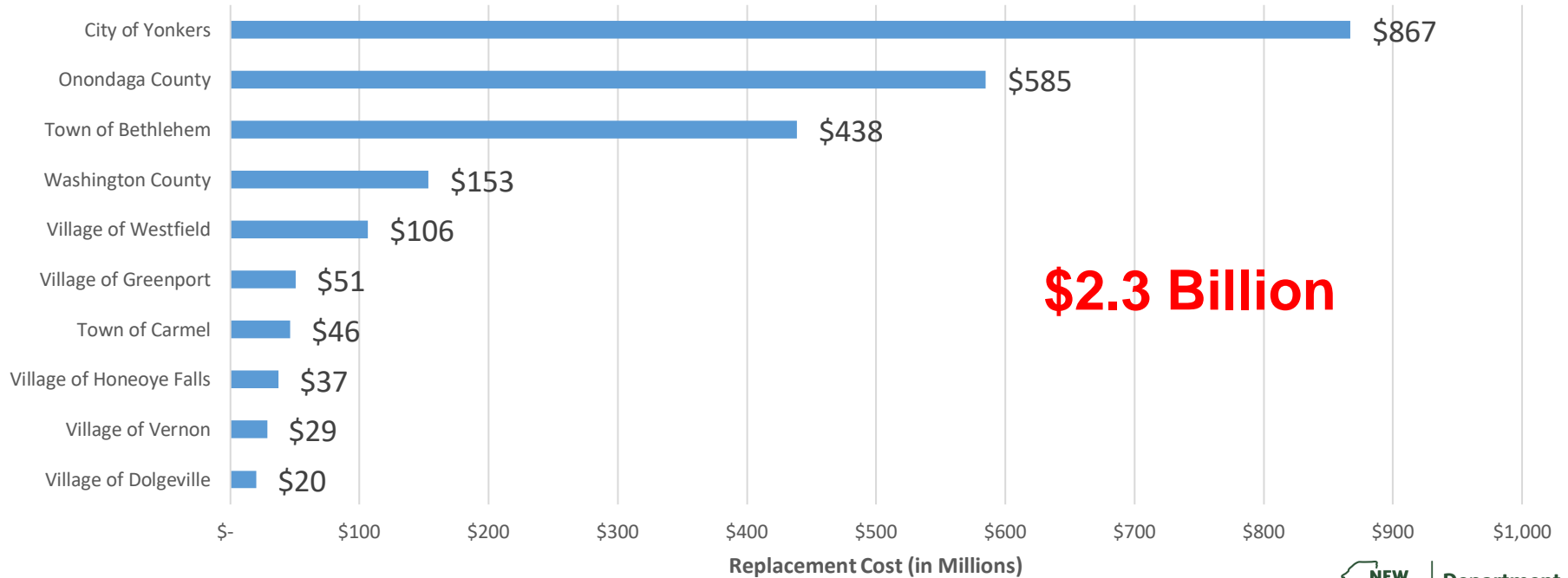
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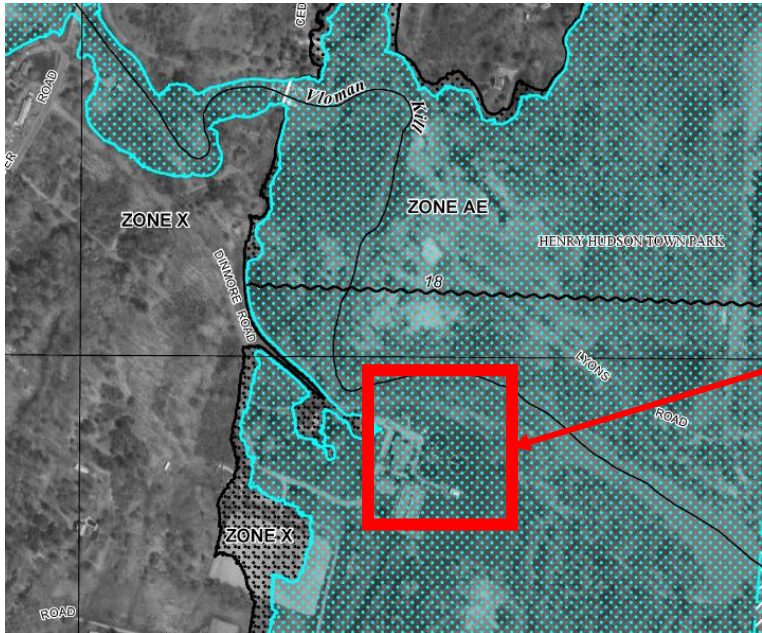
Asset Risk Matrix: Total Asset Value
and Asset Count

Likelihood of Failure Scores	10	\$25,612,955 626 assets	\$63,203,028 1452 assets	\$5,446,061 89 assets
	9			
	8			
	7			
	6	\$3,575,207 305 assets	\$13,138,399 313 assets	\$360,763 19 assets
	5			
	4			
	3			
	2	\$7,760,123 192 assets	\$30,182,124 277 assets	\$11,400 2 assets
	1			
		1 2 3	4 5 6 7	8 9 10
		Consequence of Failure Scores		

POTW Infrastructure is Expensive!



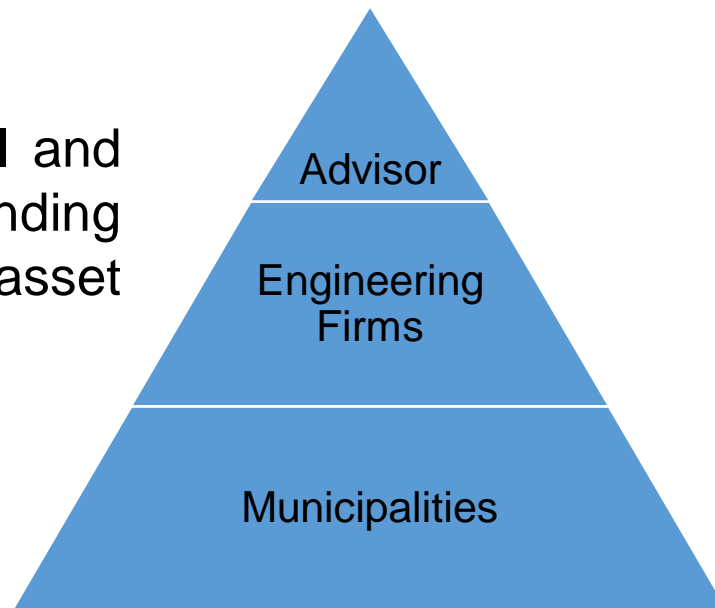
Climate Change Affects Planning



Phase II Proposal

Overview and Objectives of Phase II

Goal: To build off the success of Phase I and develop engineering expertise, while expanding the number of municipalities with asset management programs (AMPs).



Supporting Tools

IBM Maximo

- Stores all asset information;
- Improves management practices;
- Adds transparency.

AM Guide

- Sets minimum requirements;
- Identifies best practices;
- Includes detailed instructions and supporting “toolboxes.”



IBM Maximo – Asset Information Fields

The image displays two screenshots of the IBM Maximo Asset Information page. The left screenshot shows the full page with a red dashed box highlighting the Asset Information and Asset Costs sections. A red arrow points from the 'Screw Conveyor' link in the Asset Information section to the right screenshot. The right screenshot is a zoomed-in view of the Asset Information section, showing the same data as the left screenshot.

Asset Information

- Asset: AS1017 [Screw Conveyor](#)
- Process Location: RFHWGRGS > Screw Conveyor
- Primary Process: Headworks
- Physical Location: Primary Treatment Building

Asset Costs

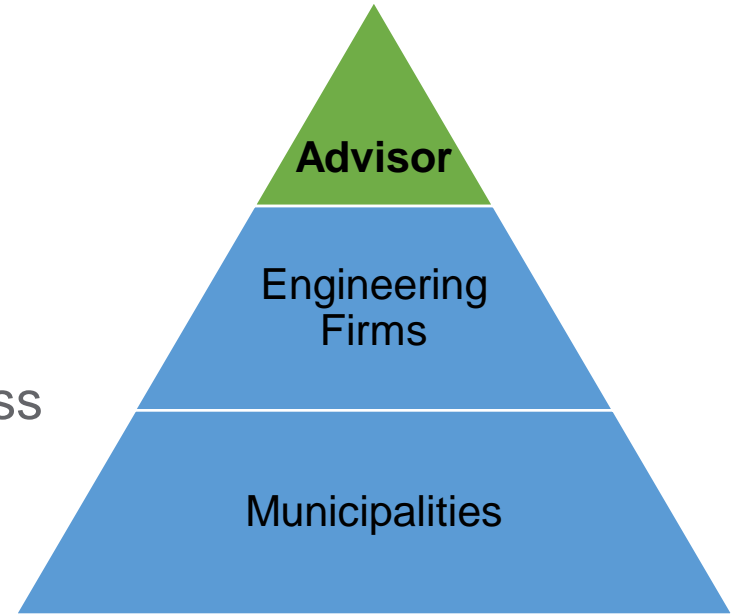
- Replacement Cost: 350,000.00 Current Value: 0.00
- Replacement Cost Index Year: 2,017 Estimation Class: 5
- Purchase Price: 0.00 PO: >

Notes on Replacement Cost:



Advisor Request for Proposals (RFP)

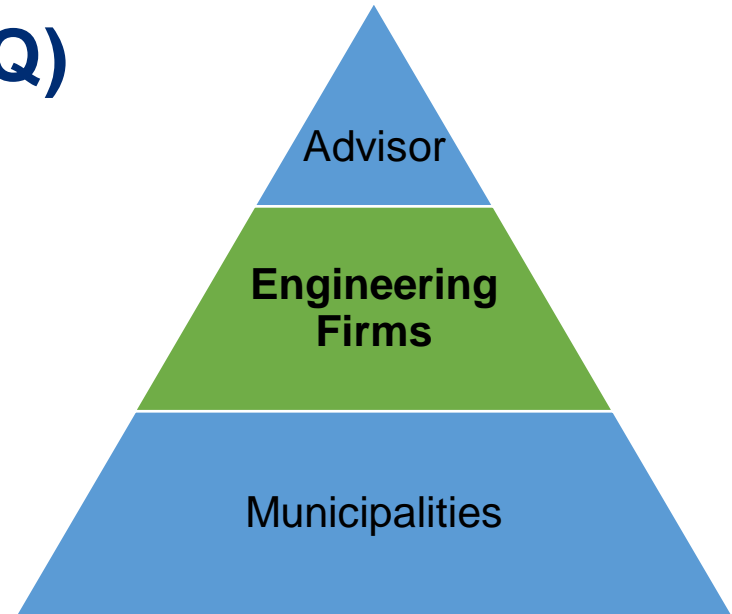
- Asset management expert
- Train Firms, manage and track progress
- Review AMP submissions for completeness
- Develop training program for NYS



NYS would be contracting directly with the Advisor.

Engineering Firms Request for Qualifications (RFQ)

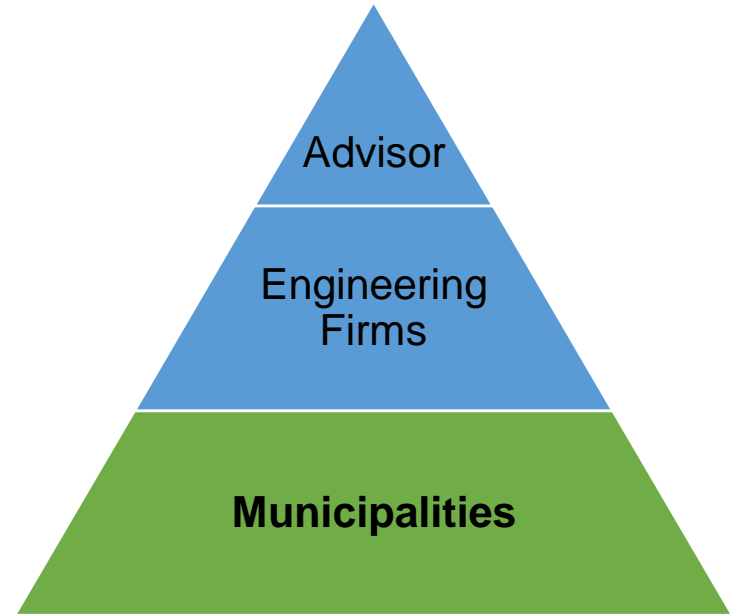
- Preselect up to 10 Firms
- Develop AMPs and assist with initial implementation
- One AMP at a time for a total of three
- Submit final materials to the Advisor



NYS would be contracting directly with Firms.

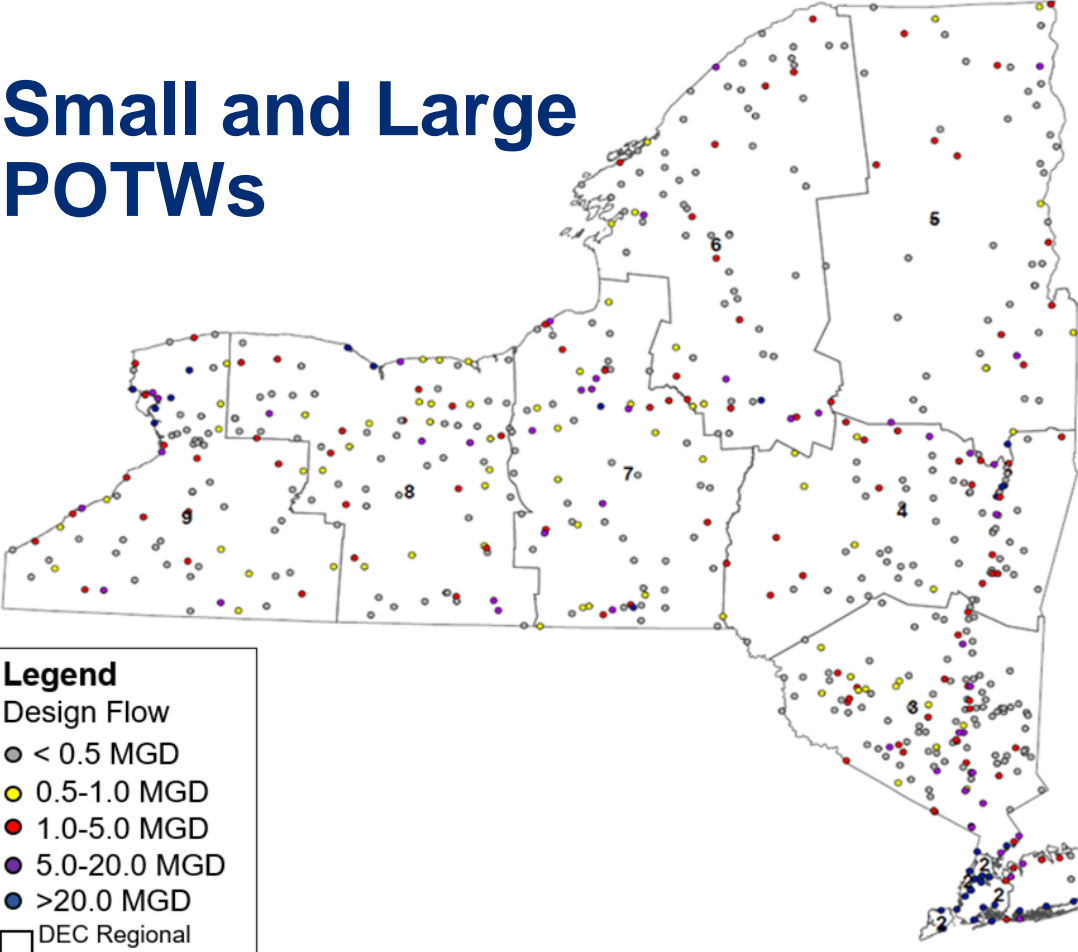
Municipalities Request for Applicants (RFA)

- Maximize the number of participants
- Select up to 30 municipalities
- Prioritize small POTWs (≤ 1 MGD)
- No monetary cost to municipalities

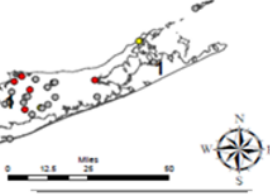


NYS would be selecting the Municipalities.

Small and Large POTWs



DEC Region	< 0.5 MGD	0.5-1.0 MGD	1.0-5.0 MGD	5.0-20 MGD	>20 MGD	Total
1	21	3	11	3	3	41
2	0	0	0	0	14	14
3	85	12	22	12	3	134
4	50	6	19	4	3	82
5	35	7	11	3	1	57
6	51	6	12	5	1	75
7	38	14	10	9	2	73
8	42	17	15	6	2	82
9	40	11	14	6	5	76
Total	362	76	114	48	34	634



Legend
 Design Flow
 ● < 0.5 MGD
 ● 0.5-1.0 MGD
 ● 1.0-5.0 MGD
 ● 5.0-20.0 MGD
 ● >20.0 MGD
 □ DEC Regional Boundary

Impact of Phase II

- Additional 30 POTWs with AMPs (5% of State)
- An estimated \$700M of additional inventoried infrastructure
- Prepared to offer funding prioritization to municipalities with AMPs

- Ten qualified engineering firms ready to advance AMPs across NYS
- Widely available AM training for NYS

- State preparedness to meet Federal SRF requirements
- Guidance vetted by representatives of the engineering community
- Framework for future SPDES permit requirements

**NYS can be an
Asset Management
Trailblazer!**



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Questions? Suggestions? Ideas?