

New York State Department of Environmental Conservation

Virtual Public Comment Hearing – February 4, 2021

**Modification of the Catalum SPDES Permit
Draft Environmental Impact Statement
Proposed Revised Operating Protocol
Proposed Revised Monitoring Plan**



**Department of
Environmental
Conservation**

What is the Purpose of today's hearing?

- Opportunity to provide public comment on the Draft Environmental Impact Statement (DEIS) and Draft Permit prepared for the proposed Modification of the CATALUM SPDES permit
- Presentation on DEIS, Draft Permit, Revised Operating Protocol and Revised Monitoring Plan



Where are we in the process?

- Final Scope for the DEIS issued March 2017
- DEIS and Draft Permit prepared (including Revised Operating Protocol and Revised Monitoring Plan), and public noticed on December 16, 2020
- 90-day public comment period beginning December 16, 2020 and ending March 16, 2021
- Comments can be made here verbally, or can be submitted in writing to DEC and NYCDEP

Where can I find the Draft Environmental Impact Statement, Draft Permit, (including the Proposed Revised Operating Protocol and Proposed Revised Monitoring Plan)?

- NYCDEP website:

<https://www1.nyc.gov/site/dep/about/catskill-influent-chamber.page>

- DEC website:

<https://www.dec.ny.gov/lands/79771.html>

Paper copies can be requested by emailing:

catalumeis@dep.nyc.gov or calling 718-595-4614

How can I comment on the DEIS, Draft Permit, Revised Operating Protocol and Revised Monitoring Plan?

- Speak at the public comment hearing today
- Written comments submitted to DEC by March 16, 2021 (by mail, email or fax)
- Send to: Kristen Cady-Poulin, Project Manager
Division of Environmental Permits
NYS Department of Environmental Conservation
625 Broadway, 4th Floor
Albany, New York 12233-1750
Fax: (518) 402-9168
Email: DEPPermitting@dec.ny.gov

Note: DEC gives equal weight to oral and written comments.



Department of
Environmental
Conservation

What happens when the Public Comment period for the DEIS, Draft Permit, Revised Operating Protocol and Revised Monitoring Plan are done?

- After review of comments, a Final EIS (FEIS) and “Findings” Statement under SEQRA will be prepared, and DEC will make a final decision on the Permit Modification (including a Revised Operating Protocol and Monitoring Plan)
- Final EIS, Permit and Findings Statement prepared and issued by DEC





New York City Department of Environmental Protection

Modification of the Catalum SPDES Permit
Draft Environmental Impact Statement (DEIS)
Proposed Revised Operating Protocol
Proposed Revised Monitoring Plan

DEIS: Proposed Action & Purpose and Need

The **Proposed Action** is the modification of the Catalum SPDES permit including

- Use of the **Ashokan Release Channel** in accordance with the IRP
- **Delay of dredging** of alum floc in Kensico Reservoir until after certain infrastructure projects, including repairs to the RWBT, are complete

The DEIS evaluates potential **benefits and impacts** of the Proposed Action and **alternatives** to the Proposed Action and proposes:

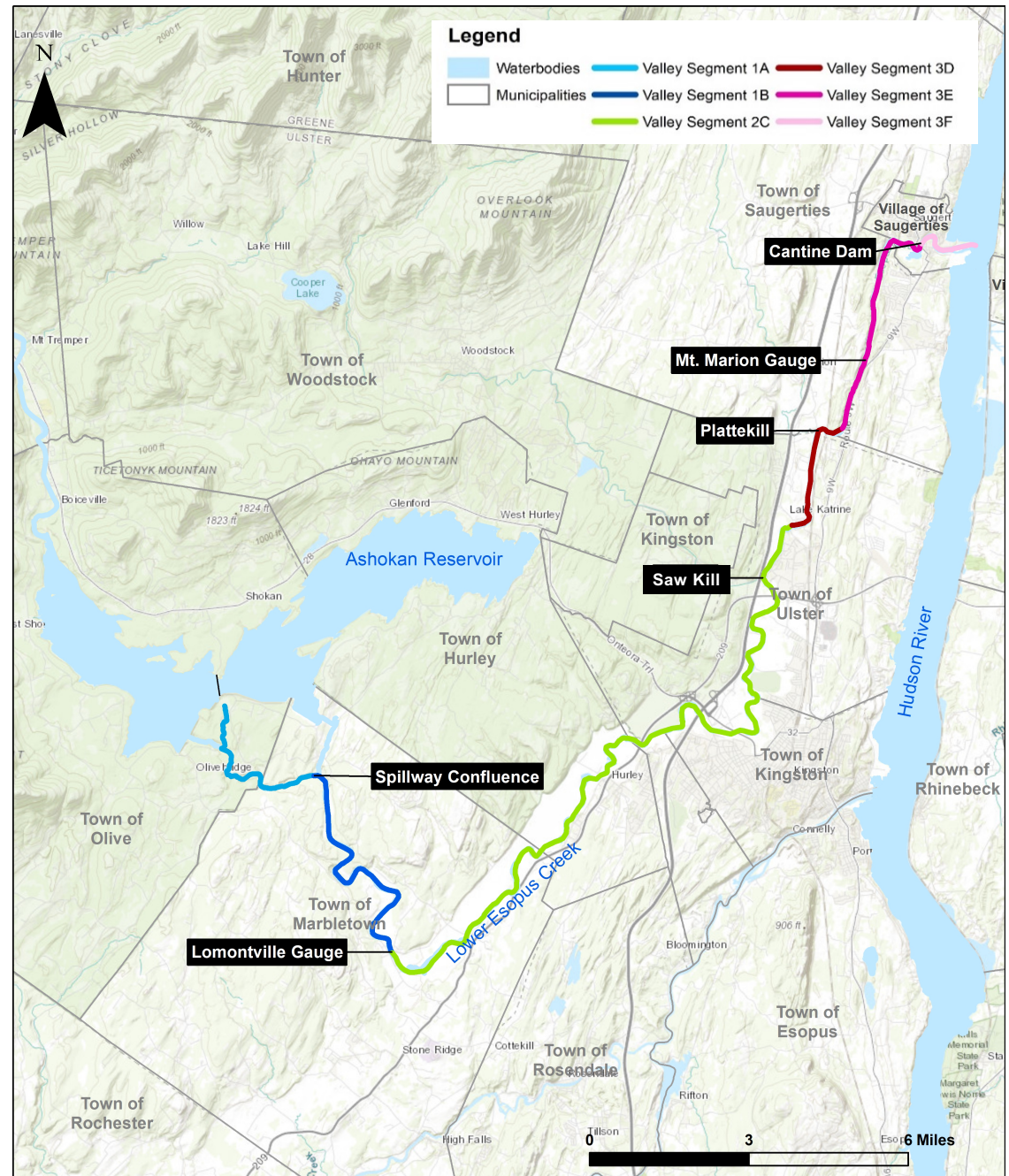
- A **Revised Operating Protocol** to *reduce, mitigate, or eliminate potential impacts resulting from the IRP while enhancing benefits*
- A **Revised Monitoring Plan**

Purpose and Need:

- Allow for DEP to continue to provide reliable, clean, and safe drinking water while potentially reducing reliance on alum application
- Balance water supply requirements with the need to minimize the potential for impacts to Kensico Reservoir and lower Esopus Creek

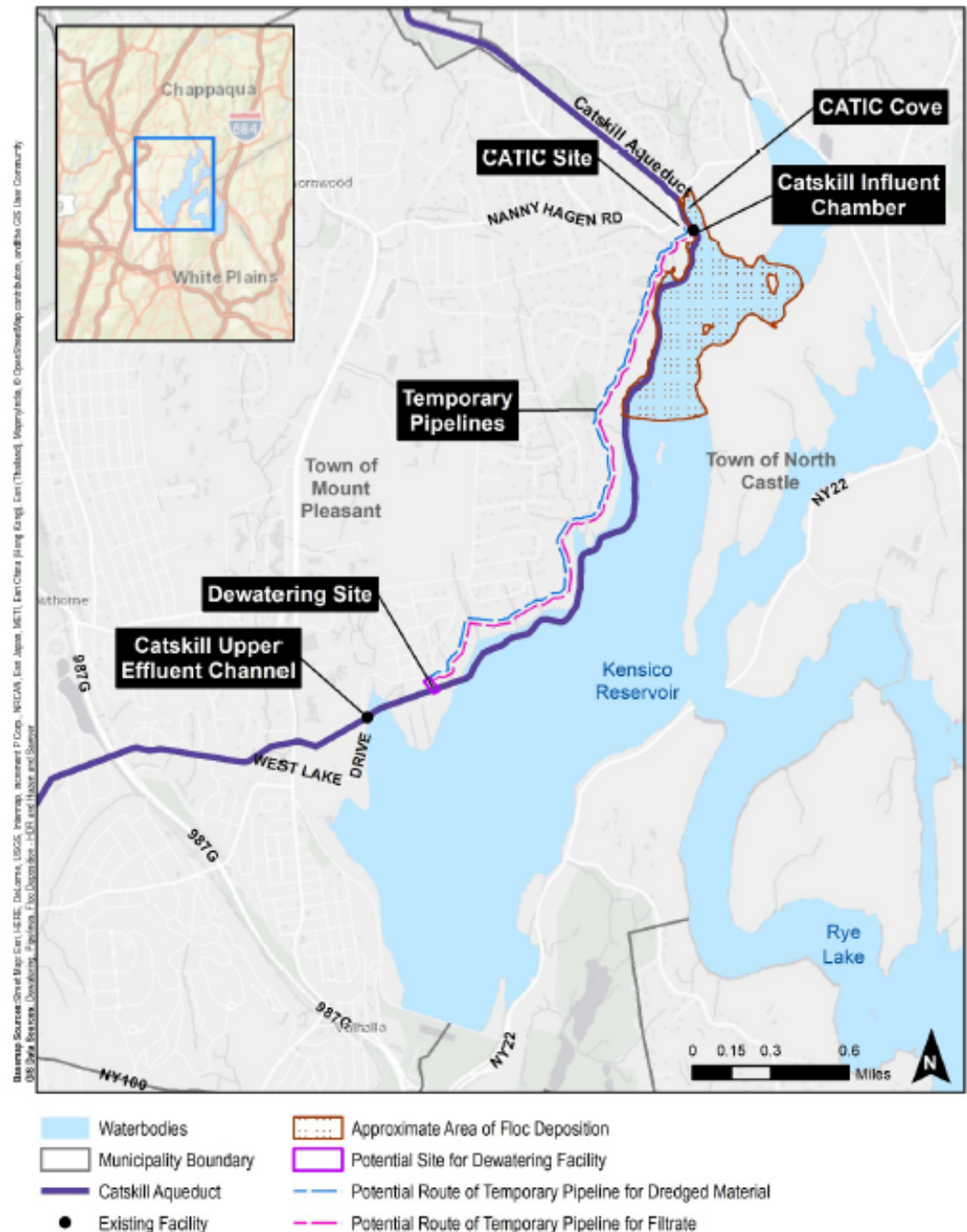
Lower Esopus Creek Study Area

- The lower Esopus Creek study area was divided into **six valley reaches** to conduct the DEIS assessments
 - Three valley segments grouped areas of similar geomorphology
 - Six reaches were then used to capture areas of similar habitat within the valley segments
- Where applicable, reaches are combined (i.e., upstream or downstream of the spillway confluence) for presenting assessment results



Kensico Reservoir Study Area

- The Kensico Reservoir study area includes
 - The area of historical alum floc deposition in the CATIC Cove
 - Staging and support areas for dredging, a dewatering site, and two temporary pipelines
- The assessment includes discussion of environmental considerations of dredging for the full study area; upon the future completion of a detailed dredging plan and design, additional assessment would be completed, as necessary

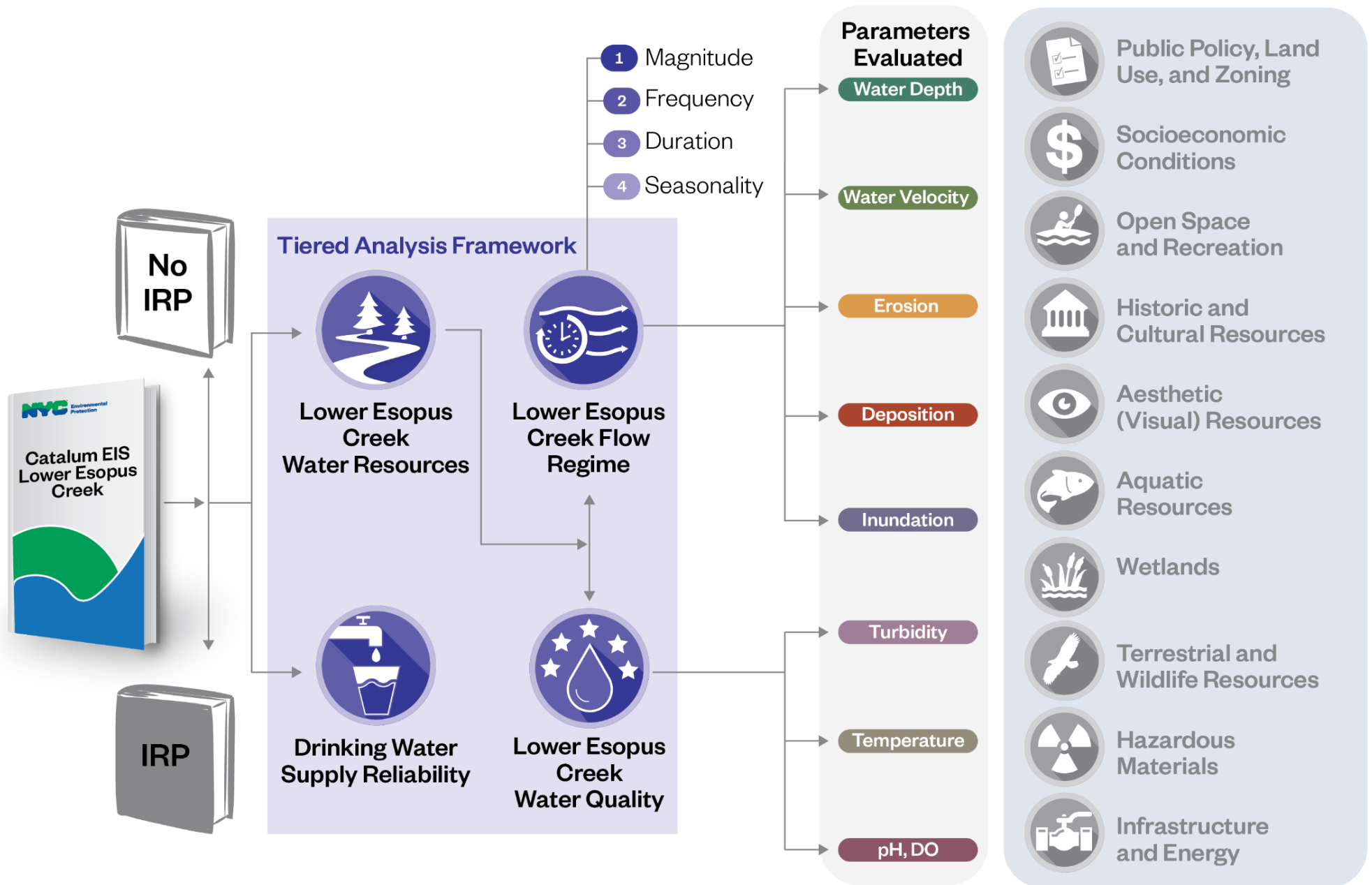


DEIS Analytical Framework

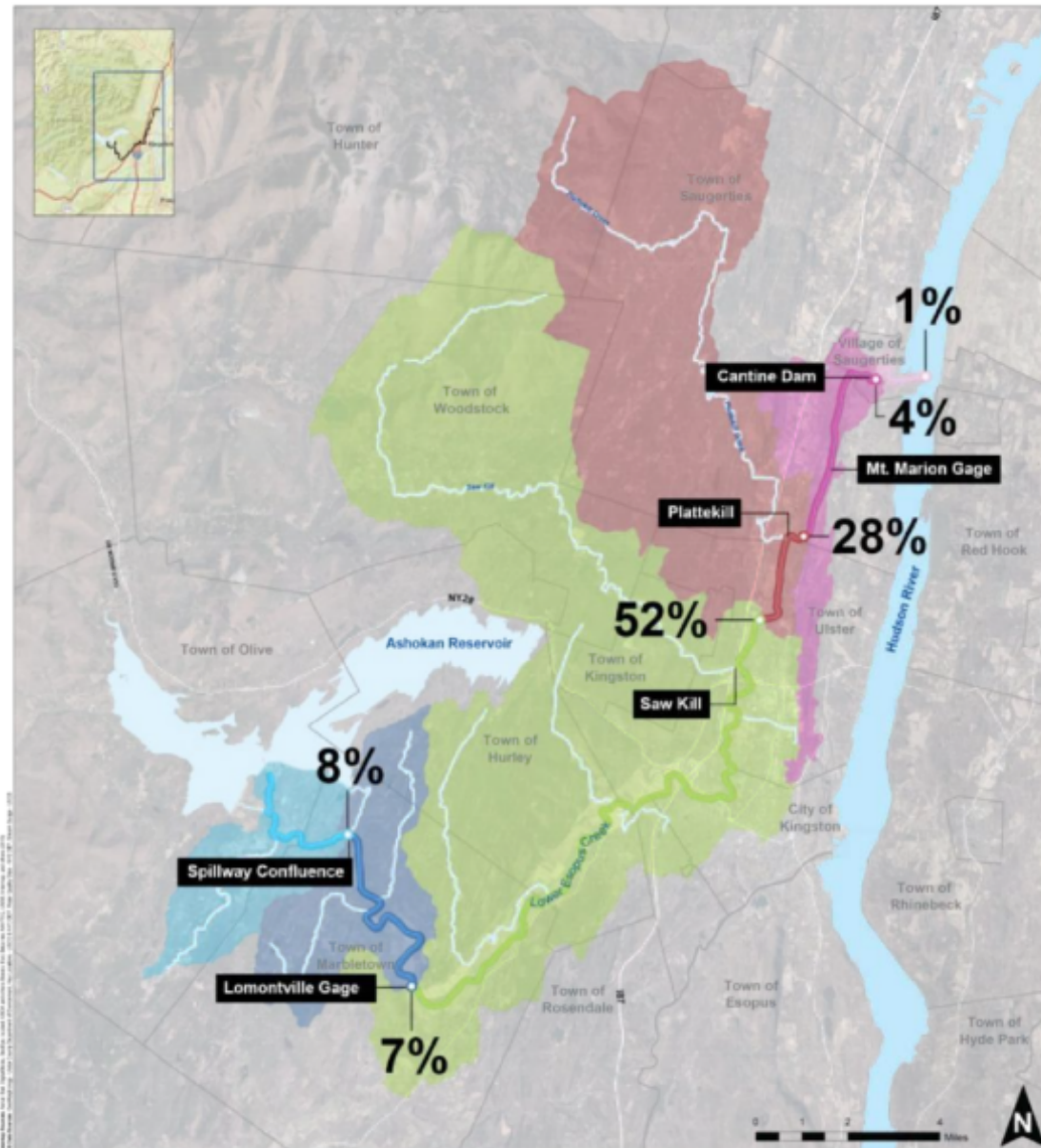
Study Areas	Baseline Conditions	Future Without the Proposed Action	Future With the Proposed Action
Lower Esopus Creek Study Area	IRP	No IRP	IRP
Kensico Reservoir Study Area	Delay of dredging	No dredging	Delay of dredging and environmental considerations of dredging

- The Future without (No IRP) and with (IRP) the Proposed Action evaluate conditions when the following infrastructure projects are online/complete, and alum is applied to water entering Kensico Reservoir, if needed:
 - Catskill and Delaware Interconnection at Shaft 4
 - Improvements to Catskill Aqueduct stop shutters
 - Croton Water Filtration Plant
 - Rondout West Branch Tunnel Repairs

Lower Esopus Creek Assessment Methodology



Lower Esopus Creek Assessment













Percentages shown are the individual contribution of the sub-watershed areas to the lower Esopus Creek watershed area. Sub-watershed boundaries are shaded for each Valley Reach.

Valley Reach 1A Valley Reach 1B Valley Reach 2C
Valley Reach 3D Valley Reach 3E Valley Reach 3F

- Ashokan Reservoir is one of several sources of flow to lower Esopus Creek and the influence of flows from Ashokan Reservoir diminishes moving downstream
- The IRP would enhance flood attenuation provided by Ashokan Reservoir
- The IRP would convert shorter duration, higher flow spill events into lower flow releases of longer duration
- Releases (all types) from Ashokan Reservoir are anticipated to have low levels of turbidity (5 NTU or less), 70% of the time
- Differences in streamflow between the IRP and No IRP would not result in impacts to overall channel stability of lower Esopus Creek

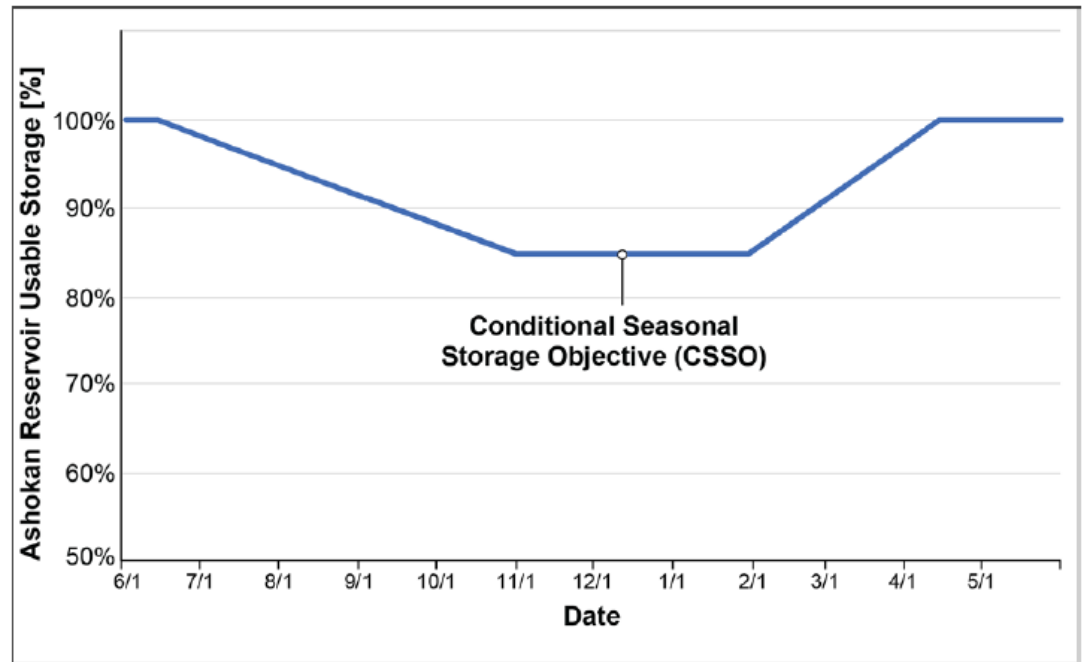
Lower Esopus Creek Assessment

- Potential differences in flow regime and water quality between the future without and with the Proposed Action were assessed for potential effects on the natural and built environment by valley reach, as applicable
- The following parameters were evaluated for each technical area assessment; based on the assessment conclusions presented, no significant adverse impacts were identified

	Public Policy, Land Use, and Zoning 	Socioeconomic Conditions 	Open Space and Recreation 	Historic and Cultural Resources 	Aesthetic (Visual) Resources 	Aquatic Resources 	Wetlands 	Terrestrial and Wildlife Resources 	Hazardous Materials 	Infrastructure and Energy 
Water Depth										
Water Velocity										
Erosion										
Deposition										
Inundation										
Turbidity										
Temperature										
pH, DO										

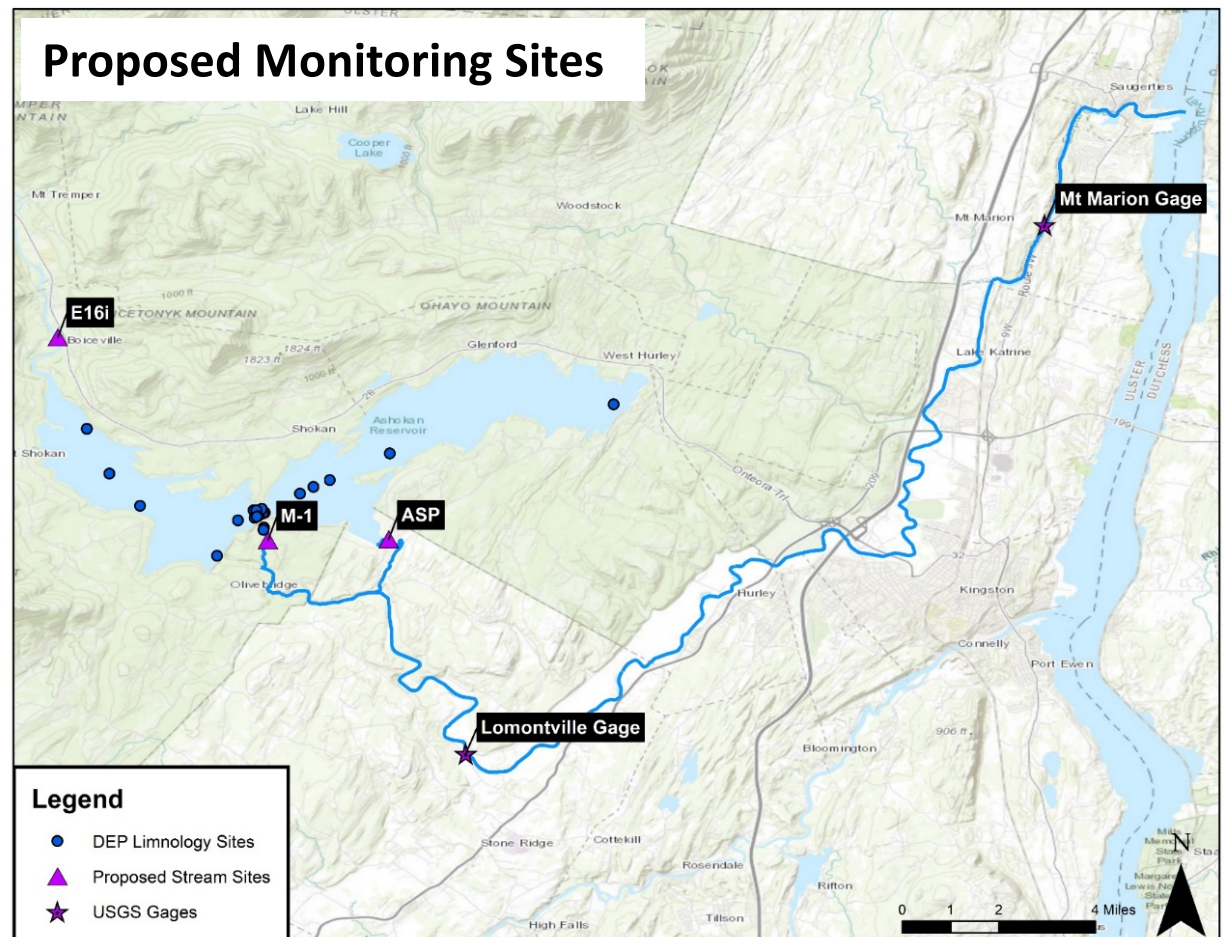
Proposed Revised Operating Protocol

- **Community Release:**
Seasonal 10/15 MGD
- **CSSO Shape:**
DEL (FFMP) ramping shape
- **CSSO Target:** 85%
- **Maximum ARC Release Rate:**
600 MGD
- **Maximum Spills/Releases:**
1000 MGD
- **Turbidity levels:** 25 and 50 NTU up to 5/12 days with flushing to best available water if less than 25 NTU or stopping of releases
- **Mt. Marion Trigger:** 2 ft. below flood “Action Stage” and forecast to reach “Action Stage”



Proposed Revised Monitoring Plan

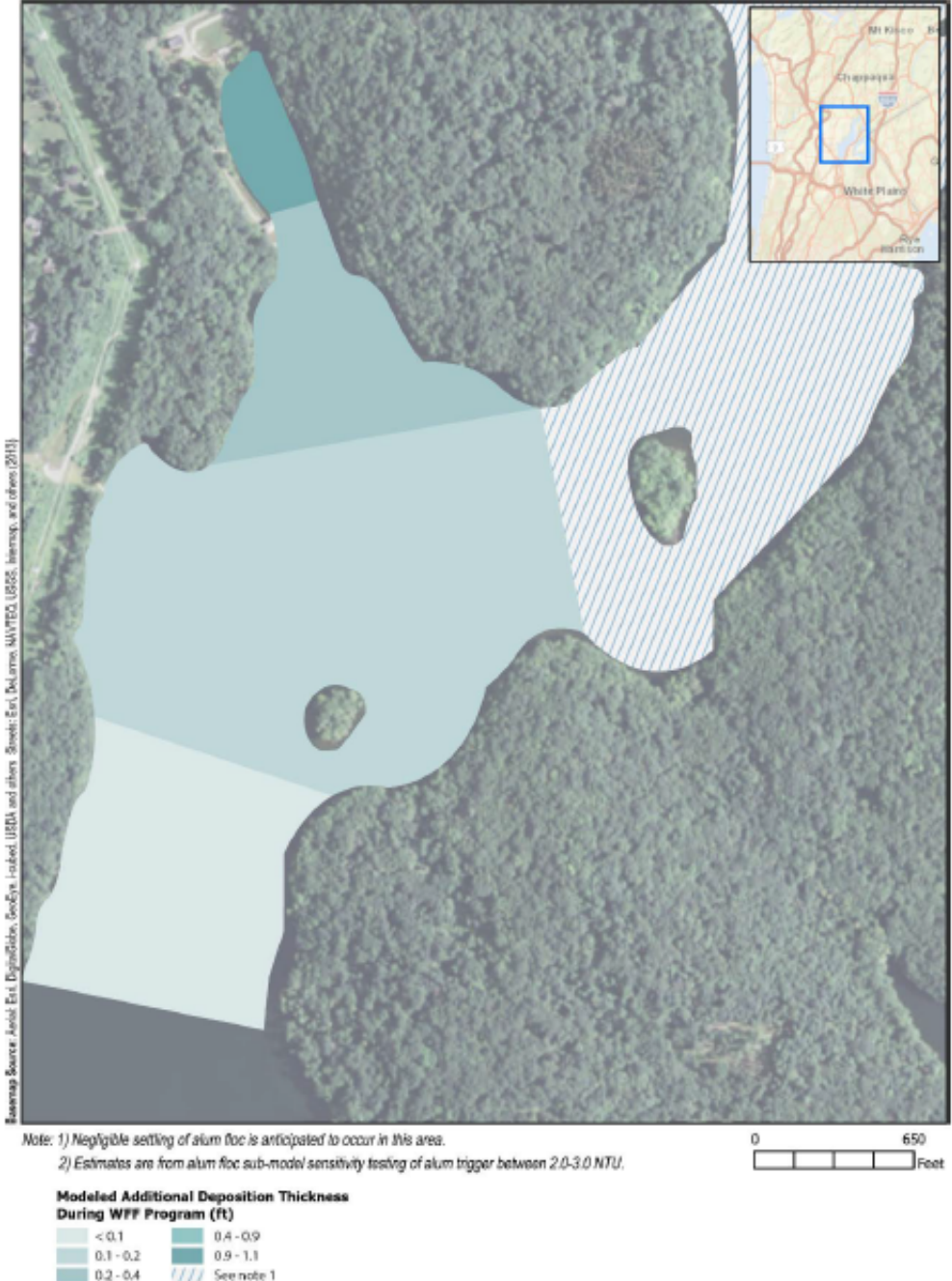
- Future monitoring within lower Esopus Creek is proposed for M-1 (the release channel), ASP (Ashokan spillway) and Lomontville and Mount Marion
- M-1 and ASP would be monitored when the Reservoir is releasing, or spilling, respectively
- The Lomontville and Mount Marion gages capture streamflow and turbidity conditions upstream and downstream of the two major tributaries to lower Esopus Creek – the Saw Kill and Plattekill
- With M-1 and ASP, the gages provide complete and continuous coverage of conditions along the length of lower Esopus Creek



Kensico Reservoir Assessment

Delay of Dredging Assessment Conclusions

- New alum floc is anticipated to occur within the same lateral extent of the CATIC Cove associated with alum floc deposition since 2005
- The diversity and presence of existing benthic communities within previously deposited alum floc are anticipated to continue to persist
- No impacts to fish or benthic communities, water quality, or wetlands are expected to occur as these would remain comparable to current conditions
- Adverse impacts from existing floc have not been observed and water quality standards and designated uses for Kensico Reservoir have been and would continue to be met



Kensico Reservoir Assessment

Delay of Dredging Assessment Conclusions continued

- Potential impacts associated with aluminum present within alum floc are not anticipated since the long-term water quality characteristics of Kensico Reservoir (i.e., neutral pH levels) do not support the conditions necessary for bioavailability of aluminum that would potentially result in adverse impacts to benthos or fish
- The delay of dredging would not result in potential impacts to the community since no active site preparation or construction activities would occur during the period of delay

The DEIS also identifies **environmental considerations of dredging** that would be further assessed in the future when the potential design, duration, and extent of dredging would be further refined

Pursuant to the 2020 Modification to the Catalum Administrative Order on Consent, the DEIS analyzes the impact of further delaying the Kensico Reservoir dredging until after DEP constructs a filtration plant for the Catskill/Delaware water supply

Draft Catalum SPDES Permit

Summary of Key Permit Changes:

- Added Revised Operating Protocol (ROP) and Revised Monitoring Plan
- Updated the Schedule of Compliance by revising the compliance action related to the removal of alum floc
- Added a new pH limit range of 6.0 – 9.0 during periods when alum is being added
- Updated the monitoring location for Total Phosphorus during periods of alum addition

The Draft Catalum SPDES Permit can be found at:

https://www.dec.ny.gov/docs/water_pdf/catalumdraftpermit.pdf

A Fact Sheet describing the permit and proposed changes can be found at:

https://www.dec.ny.gov/docs/water_pdf/catalumspdesmodfs.pdf

Written comments on the Draft Catalum SPDES Permit (including the Proposed ROP and Monitoring Plan) will be received until March 16, 2021. Oral comments can be received today.

Comments on DEIS and Draft Permit

- **DEIS** is available at: <https://www.dec.ny.gov/lands/79771.html> or <https://www1.nyc.gov/site/dep/about/catskill-influent-chamber.page>
- **Draft Catalum SPDES Permit** (including Proposed ROP and Proposed Monitoring Plan) is available at: https://www.dec.ny.gov/docs/water_pdf/catalumdraftpermit.pdf
- Written comments will be accepted until March 16, 2021
- Mail comments to:

Kristen Cady-Poulin, NYSDEC
Division of Environmental Permits
625 Broadway, 4th Floor
Albany, NY 12233-1750
- E-mail comments to: DEPPermitting@dec.ny.gov
- **Second Public Hearing** scheduled for March 3, 2021 at 4pm.