

Water Quality Monitoring Plan

(Ashokan Watershed – Release Channel Operations)

Monitoring Objective

- To monitor water quality in the Lower Esopus Creek (LEC) and other locations in support of analysis of the effects of the operation of the Ashokan Release Channel

Monitoring Sites

- **Condition: Release Channel Not Operating** (Routine monitoring conducted at these sites, regardless of reservoir spill status)
 - Upper Esopus Stream Site
 - Esopus Creek (E16i) – last sampling point prior to entry into Ashokan Reservoir
 - Limnology Sites
 - Ashokan Reservoir Limnology Stations (1EA-4EA) – multiple depths in water column, both basins (reservoir conditions permitting, March-December)
 - Keypoint Sites
 - Ashokan Upper Gatehouse – water at the east and west basin intake levels as follows:
 - ES – East Surface
 - EM – East Middle
 - EB – East Bottom
 - WS – West Surface
 - WM – West Middle
 - WB – West Bottom
 - Ashokan Effluent Sampling Station (EARCM) – final effluent leaving Ashokan via Catskill Aqueduct
- **Condition: Release Channel Operating** - In addition to sites listed above, add these sites:
 - Ashokan Release Channel (M-1) – water released through the release channel to the lower Esopus Creek
 - Lower Esopus Stream Sites
 - Lower Esopus Creek Above Sawkill (LEC AS) – above confluence with Sawkill Creek
 - Lower Esopus Creek at Saugerties Beach (Saugerties Beach) – above Saugerties dam

- **Condition: Release Channel Operating & Ashokan Spilling** (In addition to sites listed above, add these sites:
 - Lower Esopus Stream Sites
 - Ashokan Spill (ASP) – Ashokan Reservoir spill channel below spillway
 - Lower Esopus Creek Confluence (ASP M-1 CONF) – below confluence of Ashokan Reservoir release channel release flow and Ashokan Reservoir spill channel

Monitoring Frequency and Analytes

- **Condition: Release Channel Not Operating** (Routine monitoring at these sites)

Site Type	Sites	Analytes	Frequency
Upper Esopus Creek	E16i	turbidity, temperature	Weekly
		total suspended solids	Monthly
Limnology	1EA-4EA	turbidity, temperature	2x/Month*
		total suspended solids	Monthly*
Keypoints	EARCM	turbidity, temperature	5Days/Week
		total suspended solids	Monthly
Keypoints	ES, EM, EB, WS,WM,WB	turbidity, temperature	Weekly

* Reservoir conditions permitting (March – December)

- **Condition: Release Channel Operating** (In addition to sites listed above, add these sites)

Site Type	Sites	Analytes	Frequency
Keypoints	M-1	turbidity, temperature, total suspended solids	Weekly
Lower Esopus Creek	LEC AS, Saugerties Beach	turbidity, temperature, total suspended solids	Weekly

- **Condition: Release Channel Operating & Ashokan Spilling** (In addition to sites listed above, add these sites
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Site Type	Sites	Analytes	Frequency
Lower Esopus Creek	ASP, ASP M-1 CONF	turbidity, temperature, total suspended solids	Weekly