Cayuga Lake Hydrilla: 2023 Treatment and Survey Plans

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In coordination with the NYS Water Resources Institute at Cornell University
2022: DEC Joins the Field Effort

• DEC adds new capacity at Cayuga
  ▪ Regional AIS Coordinator
  ▪ 4-person strike team
    • Point-intercept surveys
    • Tuber and snorkel surveys
• DEC contractors
  ▪ SOLitude Lake Management
    • Treatment and water samples
  ▪ Northeast Aquatic Research, LLC
    • Point-intercept and tuber surveys
2023: DEC Field Plan Overview

- **DEC Treatment Areas**
  - Southern Aurora (Long Point SP)
  - Sheldrake and Wyer’s points
  - Water sampling
- **DEC Survey and Monitoring efforts**
  - Point-intercept surveys
  - Tuber bank monitoring
  - SCUBA/Snorkel and Drone surveys
2022: Southern Aurora/Long Point SP Monitoring Results

- Hydrilla found <1% of tosses
- Majority found within treatment areas
- New finds on North and South edges of treatment area
  - Long Point State Park launch
  - Northeastern edge
2022: Southern Aurora/Long Point SP Treatment and Water Sampling

- 10 week low-dose Sonar H4C treatment (late June–early Sept)
  - 2 applications @ 20 ppb
  - 8 applications @ 13.75 ppb
- Spot treatment with Harpoon
  - 3.3 acre-feet treated
- Water Sampling following treatment (within 24–48 hrs)
2023: Southern Aurora/Long Point SP Treatment and Water Sampling

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2022: Sheldrake and Wyer’s Points Monitoring Results

- Hydrilla discovered at Sheldrake in late October through SCUBA
- Confirmed by DEC and FLPRISIM in early November
  - Additional points found using rake toss surveys
  - Delineation surveys conducted ~1 mile North and South
2023: Sheldrake and Wyer’s Points DEC Treatment Plan

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2023: Additional DEC Survey Areas

- Identified launches and high-traffic areas (FLPRISM)
- Survey mid and late-season
- Pilot test underwater drone at same sites to supplement point-intercept surveys
  - Subset of full survey area at finer scale
2023: South Cayuga Lake Monitoring

- South Cayuga Lake point-intercept survey
  - Assess plant health and herbicide efficacy
- Hydrilla tuber sampling
  - Select sites
2023: South Cayuga Lake Survey Efforts

- Continuation of work performed by Racine-Johnson Aquatic Ecologists
- South Lake Cayuga survey (October timeframe)
- Tuber sampling at 5 historic hydrilla locations (October timeframe)
Aquatic Plant Surveys: SCUBA (2023)

- Expanding the search for hydrilla through additional sub-surface surveys
- Focus on northern section of lake due to flow and observed trends
Aquatic Plant Surveys: ROV

2023:
• Test capabilities
• Survey Design
• Target smaller/focused areas (docks, launches, etc.)
• Standardize search time/area for quantitative data collection
Looking to the Future

- The Finger Lakes are a precious freshwater resource
- Hydrilla threatens ecosystems, recreational and economic values
- Prevention is the best method and takes a community effort