

**Feasibility Study to Eradicate Aquatic Invasive/Nuisance Species in
Canaan Lake, North Patchogue and Upper and Lower Lakes, Yaphank**

**Steering Committee Interim Meeting for Canaan Lake, Patchogue
March 31, 2010
Canaan Lake Beach Community Club
7:00 – 9:30 PM**

| Present: | Name | Affiliation | E-mail |
|----------|-----------------------|---|--|
| | Chic Voorhis | NP&V | cvoorhis@nelson.vpopo.com |
| | Sara da Silva | NP&V | sdasilva@nelsonpopo.com |
| | Mike Bontje | B. Laing Associates | blaingassoc@optonline.net |
| | Frank Castelli | SCDEE | frank.castelli@suffolkcountyny.gov |
| | Jack Eddington | County Legislator Jack Eddington | Jack.Eddington@suffolkcountyny.gov |
| | Rob Calarco | County Legislator Jack Eddington | Robert.Calarco@suffolkcountyny.gov |
| | Kevin Molloy | NYS Assemblyman Dean Murray | MolloyK@assembly.state.ny.us |
| | Chart Guthrie | NYSDEC | caguthri@gw.dec.state.ny.us |
| | Anthony Graves | Town of Brookhaven | Agaves@brookhaven.org |
| | Nancy Panarese | Suffolk County DHS | Nancy.Panarese@suffolkcountyny.gov |
| | Micky Trava | Canaan Lake Community - Chair | tkauto@optonline.net |
| | Carol Dubin | Canaan Lake Community | rocinante09@verizon.net |
| | Mike Weir | Canaan Lake Community | rocinante09@verizon.net |
| | Peter Diolusa | Canaan Lake Community | |

Note: Names in bold are members of steering committee.

Legislator Jack Eddington began the meeting with an introduction of how the restoration of Canaan Lake began.

Frank Castelli explained how Leg. Eddington introduced the Canaan Lake project to the Suffolk County Water Quality Committee to determine eligibility for funding and ultimately SCDEE in conjunction with SCDHS prepared an RFP for this study.

Sara da Silva and Chic Voorhis made the presentation: *Feasibility Study to Eradicate Aquatic Invasive/Nuisance Species in Canaan Lake, North Patchogue and Upper and Lower Lakes, Yaphank*. The purpose of this meeting is to discuss with the steering committee for Canaan Lake the timeline/schedule, existing conditions information and begin discussing restoration options.

Task 1 – Lakes Characterization & Existing Conditions. The steering committee started discussing the timeline and the group established that the next steering committee meeting would be in late July. This is when NP&V plans to have three of the four sets of sampling data completed – which once collected will be sent to SUNY Stony Brook labs for analysis with a projected two-week turnaround. Having data from different seasons is necessary for a complete analysis and this will complete Task 1. Current lake characterization and existing conditions work includes identifying and characterizing the watershed, watershed area land use & existing public lands, ownership of underwater land, pollution & shoreline inventory within 100 feet of Canaan Lake, water quality review, water quality monitoring and sediment composition, bathymetry & muck depth, density of aquatic invasive plants with comparison from 1982 and 1995, and the current 2009 invasive plant distribution map. From the invasive plant density and distribution map we see similar species density and distribution as in 1995. Both *Cabomba caroliniana* (Fanwort) and *Myriophyllum heterophyllum* (Variable leaf watermilfoil) are present. *Phragmites* is found along the southern shoreline. Town DPW has contracted for a fish ladder to be installed this year in conjunction with replacement of the Traction Boulevard culvert. Comments included:

- The only industrial parcel currently identified in the stormwater contributing area is the old kitchen cabinet business. This small lot has been vacant for several years.
- Location of Matt’s Creek is not certain, but it is more likely the mouth of the western tributary.
- There is no longer a bypass/underdrain pipe at the dam; the old pipe rotted out and no longer exists. When the lake was re-bulkheaded in the 1950’s the location where the underdrain pipe had existed was blocked.
- Dam was built for recreation only (never a mill).

- Trout will be stocked again at the lake this fall by DEC.
- When **Woodside Avenue was constructed in the mid-to-late 1970's**, the lake was muddy for weeks because bulldozers were moving earth in the headwaters when building a sump/recharge area. Residents feel **this event is what spurred the nuisance aquatic vegetation problems**, as there was no problem prior to this disturbance.
- A hotel/restaurant was located on west side of lake off of Ohls Street with access from east side of Ohl's St. Structure burnt down and became dumping area; trails to Old Woodside Avenue began to appear.
- At former Holtsville Landfill, cess pools used to be dumped into old pits (high nitrogen, as well as high phosphorus from old detergents).
- Cooler water and higher flows present at north end of lake (eastern tributary); no dense vegetation in this area.
- As of 1990's survey by DEC, brook trout still existed north of Woodside Avenue.
- Old North Ocean Avenue used to have chicken egg farms; Brook Run Drive had man-made ponds.
- Proposed fence at Traction Blvd. dam will be lowered and the dam made handicap accessible so that people can fish off the dam again. The fence was previously lowered from 6 feet to 4 feet for fishing access, but it's still high for fishing.
- No current public access to the lake – a fence blocked the prior entrance at Ohl's Street.
- Four known pipe locations (18-24" diameter):
 - End of Engelke Street (2' pipe)
 - End of Newman
 - End of Shaber Road (but catch basin since paved over and pipe buried - no longer flows)
 - At western tributary near Prince and Lakeview

Task 2 – Management Alternatives. NP&V discussed possible solutions being explored include dredging, aquatic herbicides, shading (chemical dyes) mechanical harvesting, benthic barriers(blanketing), hand/suction harvesting, drawdown/drawup, biological control (introduction of grass carp), dam removal/modification, combinations(integrated plant management), and no action.

After discussing the optimum conditions for invasive plants, the group discussed Making Conditions Less Favorable for Long-Term Control. Comments:

- Mechanical harvesting attempted in 1982, but only lasted 2 days when machine broke.
- Grass Carp – some control (was stocked at low rate the 1st time, and then some control was noticed during the first 1-2 years after the 2nd stocking).
 - DEC sometimes allows up to 15 fish/ac, but usually recommends 5-10 (permit was for 8 fish/ac).
 - At the time of the 1st stocking, the Town narrowed the culvert from 10-12' wide to current 5-6' wide and removed flashboards to be able to fit the outlet with a trash rack to prevent release of grass carp. This caused the water level to increase 3-4".
 - Signage was installed to discourage fishing of carp, but they were still caught
 - Implemented as an Adopt-a-Fish campaign with local elementary school
- Several methods previously attempted by residents off of Canaan Lake East property as trials.
 - Benthic barriers – 25'x25' pool tarp was staked in for 2 weeks (difficult).
 - Suction harvested with high powered hoses (very difficult)
 - Hand pulling with rakes (very difficult and not possible to pull out plants by the roots – created fragments)
 - Did not try herbicides
- Draw down never attempted, as it's not possible to open the spillway more than it already is.
- Public access is needed for community to have an active interest in the lake. Passive parkland property (County-owned) on east side of lake is under-utilized. Could we make recommendations for public access in conjunction with this study? Yes, as it would also provide a way to educate the public and gain public interest in restoration.
- DEC is interested in helping with public access. County site may be appropriate and DEC would be interested in helping to manage it through a cooperative agreement (DEC could maintain hand-boat ramp/fishing access; County could maintain rest of property for picnicking, or other uses).
- Leg. Eddington would subsequently prepare a resolution, but would like to see the community take responsibility for upkeep of property also.

- County recently passed law to prohibit fertilizer use from November 1st to April 1st. Large public education factor due to be implemented in next couple of weeks at every fertilizer retailer – BMP info will be posted; landscapers also now required to be trained on BMPs.
- Best boat access for sampling and remediation would be from Engelke Street and other dead end roads at northern end of lake. DEC last used Engelke St. for fish sampling with an 18' John boat.

Next steps: Public Meeting

Public meeting is scheduled for April 28th at 7PM. Canaan Elementary School would be a better venue. Robert Calarco from Leg. Jack Eddington's office will look into securing the venue and contact NP&V about status. Leg. Eddington will mail out notice of public meeting to the community.

Next Meeting – Our next steering committee meeting will be scheduled for late July.