

# Memorandum

8

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**To:** Town Board Members  
**From:** Judy Travis, District Clerk  
**Date:** 5/17/2019  
**Re:** RBL lake monitoring

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I formally request the Town Board's authorization for the Supervisor to sign a contract with Northeast Aquatic Research, 74 Higgins Highway, Mansfield Center, CT 06250 to conduct In-Lake and Tributary Water Quality Monitoring and Aquatic Plant Survey for Roaring Brook Lake.

The total cost for the project is \$18,550.00

A copy of the proposal is attached.



# Northeast Aquatic Research

George W. Knoecklein, Ph.D. Principal Limnologist  
www.northeastaquaticresearch.net

March 10, 2019

TO: Town of Putnam Valley  
Attn: Sam Oliverio  
FROM: Alejandro Reyes, Aquatic Ecologist & Project Contact  
**RE: Proposal for In-Lake and Tributary Water Quality Monitoring and Aquatic Plant Survey**

Town of Putnam Valley,

Thank you for requesting our professional services for the management of Roaring Brook Lake. Based on our preliminary review of both past Citizens Statewide Lakes Assessment Program (CSLAP) data and past consultant reports, Roaring Brook Lake exhibits characteristics of a productive waterbody, meaning that there is an overabundance of invasive aquatic plants and algae. Plants and algae are a direct result of enrichment of nitrogen and phosphorus, which can enter a lake from the watershed or be internally cycled from the sediments to the overlying waters. The following proposal outlines a full in-lake tributary and aquatic plant monitoring program aimed at elucidating the underlying causes of cyanobacteria blooms, which have become more prevalent in recent years. In order to manage these cyanobacteria blooms, proper data collection and analysis is imperative. Undertaking management techniques without proper data collection leads to capricious allocations of resources, which often ends in failed management and long term stakeholder dissatisfaction. Our proposed work is broken down into four separate events: monthly water quality monitoring, tributary sampling, one aquatic plant survey, and stormwater sampling. Shoreline nutrient sampling will also take place during the aquatic plant survey. Near will also assist the Town of Putnam Valley in acquiring state and federal grants to aid in restoration efforts, as well as help the town apply for 303(d) status for Roaring Brook Lake.

- Northeast Aquatic Research (NEAR) proposes to conduct in-lake water quality monitoring on a monthly basis from April to October. Each in-lake water quality sampling event will measure temperature, dissolved oxygen, conductivity, and nutrients (total phosphorus, total nitrogen, nitrate nitrogen, and ammonium). Nutrient samples will be taken at the surface middle and bottom of the deepest point in the lake. Also included is sampling of phytoplankton and zooplankton populations at the deep site. Understanding what different algae and zooplankton are present in the lake and their abundances provide us valuable insight into how the lake ecosystem functions, specifically how water quality is related to algal growth in Roaring Brook Lake.
- NEAR proposes to conduct tributary water quality monitoring on a monthly basis from April to September. A total of six tributaries will be visited each month and NEAR will measure discharge, temperature, dissolved oxygen, conductivity, nutrients (total phosphorus, total nitrogen, nitrate nitrogen, and ammonium) and fecal coliform.
- NEAR proposes to conduct an aquatic plant survey aimed at characterizing the aquatic plant community throughout Roaring Brook Lake. Specifically, we propose to 1) develop a comprehensive, up to date list of aquatic plants present in the lake, 2) map the extent of all aquatic plants throughout the littoral zone, including acreage and density estimates of common species present and 3) pay special attention to invasive species such as Eurasian watermilfoil and Fanwort.
- NEAR proposes to sample one large storm event in 2019 for total phosphorus, total nitrogen, and total suspended solids. Samples will be collected from each inlet and areas where overland water flow is present during the storm event. A maximum of 15 samples will be analyzed with the current budget, with more being analyzed at the request of the Town of Putnam Valley and the Roaring Brook Property Owners Association.
- NEAR proposes to collect water samples close to shore at seven different locations in order to investigate shallow water nutrient concentrations distributed throughout Roaring Brook Lake. Sampling will take during the June aquatic plant survey. Each sample will be analyzed for total phosphorus and total nitrogen.
- NEAR proposes to deploy a string of (7) temperature loggers at the deep site to monitor for changes in mixing and stratification patterns. We suspect that Roaring Brook Lake is polymictic, and stratifies/de-stratifies on a daily or weekly scale, impacting nutrient concentrations lakewide. Normal monthly water quality sampling would not be able to catch these variations in temperature. Data loggers will measure temperature and light every two hours throughout the season.

- NEAR proposes to give two public presentations to the Town of Putnam Valley to provide residents with project updates.

The total cost of the proposed work is **\$18,550**. Please see the table below for a breakdown of project costs:

<b>Roaring Brook Lake Proposed Scope of Work - 2019</b>		
<b>Task Number &amp; Description</b>		<b>Cost</b>
1	Water quality monitoring of in-lake conditions on a monthly basis for seven months (April to October)	\$5,068
2	Water quality monitoring of six tributaries on a monthly basis for six months (April to September)	\$4,680
3	Aquatic plant surveying and mapping	\$1,322
4	Stormwater sampling of one storm event	\$1,130
5	Shoreline nutrient sampling	\$350
6	Deployment of HOBO Temp/Light loggers	\$1,000
7	Two public presentations to the Town of Putnam Valley	\$3,200
8	Data analysis and report writing	\$5,000
<b>Total 2019 Project Budget</b>		<b>\$18,550</b>

**Billing Breakdown:**

NEAR would bill the Town of Putnam Valley a total of eleven times during the 2019 season, with each invoice containing a brief description of the service completed and any available raw data collected at the time. All invoices will be generated after services are performed. Please see the below table for a brief invoice description and anticipated timeframe.

<b>Invoice #</b>	<b>Invoice Description</b>	<b>Invoice Timeframe</b>
1	In lake and tributary water quality sampling, deployment of HOBO Temp/Light loggers.	April 2019
2	In lake and tributary water quality sampling	May 2019
3	In lake and tributary water quality sampling; aquatic plant sampling and shoreline nutrient sampling).	June 2019
4	Public meeting #1	June 2019
5	In lake and tributary water quality sampling.	July 2019
6	In lake and tributary water quality sampling.	August 2019
7	In lake and tributary water quality sampling.	September 2019
8	In lake and tributary water quality sampling, retrieval of HOBO Temp/Light loggers.	October 2019
9	Public meeting #2	October 2019
10	Stormwater sampling	TBD
11	Data analysis and report writing	January 2020

We would request that community members around Roaring Brook Lake supply a rowboat with oars for all sampling events. This would bring down the cost of the proposal and limit the chances of invasive species entering the lake. NEAR will supply manpower and all sampling equipment necessary.

We appreciate this opportunity to work for the Town of Putnam Valley. If you have any questions please call me at 845-661-0824 (cell), or use email: [ajreyes1022@gmail.com](mailto:ajreyes1022@gmail.com).

Sincerely,  
Alejandro Reyes

9

# Memorandum

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To: TOWN BOARD MEMBERS  
From: JUDY TRAVIS – DISTRICT CLERK  
Date: 6/12/2019  
Re: HILLTOP ESTATES BEACH MONITOR

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I formally request that the Town Board appoint Claire Cassidy as a Beach monitor for Hilltop Estates for the 2019 season for a salary of \$12.00/hr with no benefits.

This is a new position for Hilltop and they have requested that Claire work on weekends only.



# Memorandum

10

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**To:** TOWN BOARD MEMBERS  
**From:** JUDY TRAVIS – DISTRICT CLERK  
**Date:** 6/4/2019  
**Re:** LAKE PEEKSKILL BEACH MONITOR

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I formally request that the Town Board appoint Greg Scibior as a Lake Peekskill Beach monitor for the 2019 season for a salary of \$9.75/hr with no benefits.

He will replace Christopher Koleda who was previously appointed but has now accepted other employment.



To: Town Board  
From: Frank DiMarco, Parks and Recreation  
Subject: Parks  
Date: May 16, 2019

Please approve the following additions/changes.

1. Josef Wacaser, Seasonal Jr. lifeguard @ \$11.00 hr.
2. James DeRonda, PV Children's Center @ \$11.80 hr.
3. Charles Potaki, Program Sports camp bus driver @ \$22.98 hr.
4. Deborah Montaruli, Program Sports camp child care @ \$17.24 hr.

To: Town Board  
From: Frank DiMarco, Parks and Recreation Director  
Subject: Parks and Recreation Refunds  
Date: May 30, 2019

Rosario Barrera 51 Argyle Street Lake Peekskill, NY 10537	\$ 500.00 LPCC deposit refund Cancelling date
Melissa Frederick 10 Red Mill Road Cortlandt Manor, NY 10567	\$22.00 PVCC Not attending the rest of May
Deborah Moutinho 100 Lake Drive Lake Peekskill, NY 10537	\$500.00 LPCC deposit Return deposit no rental
Desiree Gonzalez 10 Mathis Court Lake Peekskill, NY 10537	\$500.00 LPCC deposit Refund
Latoya Bennett Johnson 3710 Curry Street Yorktown Heights, NY 10598	\$55.00 PVCC Per refund policy before June 1
Melissa Anselmo 18 Trail of the Hemlocks Putnam Valley, NY 10579	\$500.00 LPCC deposit Refund
Lucrecia Gonzalez 107 Kramers Pond Road Putnam Valley, NY 10579	\$500.00 LPCC deposit Refund
Carmen Uchupailla 129 Hewitt Street Lake Peekskill, NY 10537	\$500.00 LPCC Deposit refund

6/5/2019

**TOWN OF PUTNAM VALLEY**  
**OFFICE OF BUILDING & ZONING**  
 265 Oscawana Lake Road  
**Daily Fee Report - Summary**

(13)

From: 5/1/2019 To: 5/31/2019

Fee Type	Count	Amount
ADDITION/ALTERATION	2	\$470.00
CW	5	\$375.00
DEM/C	1	\$250.00
DEM/R	1	\$100.00
ELECTRI APP/NY ELEC	5	\$150.00
ELECTRIC APP/SWIS	10	\$300.00
FENCE/WALL	3	\$225.00
GAS/PROPANE	5	\$425.00
GENERATOR PERMIT	1	\$75.00
HVAC	3	\$225.00
IN GROUND POOL	1	\$350.00
MG	4	\$300.00
MI	1	\$5.00
OIL TANK	5	\$625.00
OPERATING PERMIT	1	\$100.00
PELLET STOVE	1	\$75.00
PERM	14	\$3,478.00
PERNC	1	\$15,098.00
PL	9	\$900.00
RE	5	\$12,570.00
REINSPECTION FEE	1	\$50.00
RU	5	\$625.00
SEARC	26	\$3,900.00
SI	1	\$75.00
TREE	1	\$75.00
WETADM	2	\$100.00
WETL	2	\$200.00
<b>Total Fees Collected:</b>	<b>116</b>	<b>\$41,121.00</b>
<b>Cash</b>	<b>12</b>	<b>\$885.00</b>
<b>Check</b>	<b>104</b>	<b>\$40,236.00</b>

**SEE REVERSE**