

# BUDGET SUMMARY

## Suffolk County Tick Surveillance and Management Program 2018

Funds Needed		Suffolk County Budget Support		Total
Capital Budget	Operating Budget	Capital Budget	Operating Budget	

**Phase 1 – Top Priority**

Tick-Borne Pathogen Surveillance Program

Acaricide Efficacy Field Trials

Tick Management Pilot Program (Indian Island County Park)

\$75,000	\$167,375	\$100,000	\$80,330	\$422,705
\$25,000	\$2,000	\$0	\$3,000	\$30,000
\$169,500	\$62,500	\$0	\$60,000	\$292,000

**Phase 1 – Secondary Priority**

Pest Control Operator Workshop and Educational Outreach

Phase 1 - Total

\$0	\$17,000	\$0	\$3,000	\$20,000
\$269,500	\$248,875	\$100,000	\$146,330	\$764,705

**Phase 2 – Top Priority**

Development of EIS/SEQR

Implement and Manage Area-Wide Pilot Program

Phase 2 - Total

\$450,000	\$0	\$0	\$50,000	\$500,000
\$195,000	\$65,000	\$0	\$90,000	\$350,000
\$645,000	\$65,000	\$0	\$140,000	\$850,000

Phase 1 and 2 Totals

\$914,500	\$313,875	\$100,000	\$286,330	\$1,614,705
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### Phase 1 – Top Priority

- **Tick-Borne Pathogen Surveillance Program**

This program will allow for the in-house testing of tick specimens for tick-borne pathogens in the Arthropod-Borne Disease Laboratory (ABDL). These data will help determine the public health risk of various tick-borne pathogens for residents and visitors at different locations. Findings will also help guide the Vector Control in tick management programs and related activities.

**Capital Budget Needed – \$75,000 Total**

Field Vehicle (i.e. SUV) - sufficient to travel off road in rural locations and the ability to carry several staff members and necessary field equipment - **\$35,000**

Gilson Pipetmax with qPCR Assistant software - a robotic system that will dispense liquid reagents during the analytical process for tick-borne pathogens. This will increase testing efficiency and accuracy by reducing the staff time needed for sample preparation while reducing possible pipetting errors caused by staff manually dispensing liquid reagents - **\$40,000**

**Operating Budget Needed – \$167,375**

Entomologist – salary and fringe benefits for a fulltime Entomologist (grade 25) would be needed to oversee all field and laboratory functions related to the tick-borne pathogen surveillance program including the collection and pathogen analysis of specimens. This would include the standardization of the necessary laboratory equipment and testing protocols. This program is technically and analytically based (e.g. molecular) and requires an individual with this degree of training – **\$93,265**

Student Interns – salary for two (2) part-time student interns II (\$10.50 per hour), which would be employed 17.5 hours per week from January to December to assist with all necessary field and laboratory functions related to the collection and testing of tick specimens - **\$19,110**

Supplies and Materials - includes various items such as reagents, disposables and field supplies necessary for the collection and testing of tick specimens - **\$55,000**

**Suffolk County Capital Budget – \$100,000**

Laboratory Equipment for Tick-Borne Pathogen Testing - \$100,000

**Suffolk County Operating Budget – \$80,330 Total**

ABDL Lab Chief, Lab Director, Entomologist (15%) – \$71,000

Vector Control Entomologist (10%) – \$9,330

• **Acaricide Efficacy Field Trials**

These efficacy trials will determine which tick management materials are effective when applied using common application equipment under local field conditions. Findings will allow Vector Control to use the most effective materials and application methods. Private pest control operators will also receive this information which may increase the effectiveness of their efforts on private properties throughout Suffolk County.

**Capital Budget Needed – \$25,000 Total**

Application Equipment – Two Maruyama, Three Stihl and Two Pioneer Eco backpack sprayer units with four extra tanks for applying pesticides on test plots. This will allow the evaluation of tick control provided by numerous pesticides and any variation in control level due to the application equipment used - **\$8,000**

Vegetation Management Equipment – Four Stihl chain saws, two brush cutters, two backpack blowers, and one power pruner to implement pruning, and all other vegetation management options and maintenance on field testing plots - **\$4,000**

Safety Equipment – Required associated safety equipment such as helmets, eye protection, chaps and gloves for pesticide applications and vegetation management strategies - **\$3,500.00**

Sampling Equipment – Tweezers for collecting and sampling ticks, one microscope for tick ID, materials for reusable tick containment arenas for placement in field trial plots - **\$5,500**

HOBO micro data stations – Reusable micro data collection stations with associated humidity, soil moisture, wind speed, and rain gauge sensors for field testing plots. This will allow tracking of environmental conditions during field trials which can have a large impact on ticks - **\$4,000**

**Operating Budget Needed – \$2,000**

Supplies and materials – includes various items such as vials, disposables and field supplies such as protective clothing treatment and tick control products for testing in the field efficacy trials – **\$2,000**

**Suffolk County Capital Budget – \$0.00**

**Suffolk County Operating Budget – \$3,000 Total**

Vector Control Entomologist (3%) – \$3,000

- **Tick Management Pilot Program (Indian Island County Park)**

Tick management strategies, including deer management, and materials proven through peer reviewed literature and our local field efficacy trials will be implemented on a larger scale throughout Indian Island County Park to evaluate their efficacy and total costs. Resulting data will be use to design and choose which tick management strategies are worth implementing in the Full Scale Pilot Program in Phase 2 and subsequent tick management efforts.

**Capital Budget Needed – \$169,500**

Application Equipment – Multiple Maruyama, Stihl or Two Pioneer Eco backpack sprayer units with for applying tick control pesticides where needed in the park. One mobile trailer mounted 300 gallon hydraulic spray unit towable by truck. This will allow the evaluation of tick control provided by various application methods at a full scale setting - **\$35,000**

Vegetative Management Equipment – Eight Stihl chain saws, four brush cutters, three backpack blowers, and two power pruner to implement pruning, and all other vegetation management options and maintenance on field testing plots - **\$10,000**

Host Exclusion – Square wire, wooden split rail and angled deer fencing to minimize deer entry into high use areas of the park to minimize tick re-introduction and movement - **\$30,000**

HOBO micro data stations – Reusable micro data collection stations with associated humidity, soil moisture, wind speed, and rain gauge sensors for tracking of environmental conditions in park treatment areas throughout the season and treatment regiments. Two desktop computers for data tracking, analysis and production of GIS treatment maps required for pilot program design and operation – **\$20,000**

Sampling Equipment – Materials for reusable tick containment arenas for placement in treatment plots throughout Indian Island County Park to track tick mortality and overall efficacy of full scale applications – **\$8,500**

Public Displays – Wood and related materials for construction of five public education kiosks in Indian Island County Park that provide details of the nearby employed tick management strategies – **\$8,000**

Tick Sample (Frozen) – One American Biotech Supply 21 cubic foot ultra-low freezer for storage and related shelving inserts for storage of collected tick samples **\$15,000**

Tick Storage (live) – One upright computer controlled environmental chamber with temperature and humidity control for live storage of ticks prior to use in tick containment arenas throughout treatment areas in Indian Island County Park – **\$20,000**

Laboratory Table – One 4x8 chemical resistance laboratory table with a laminar flow work HEPA filtered station hood to provide a sterilizable work surface and storage when organizing live ticks, frozen tick samples and related materials for the pilot project – **\$15,000**

Shipping Containers for Material Storage – Three 40 foot weather tight shipping containers for storage of Indian Island County Park Pilot Program equipment – **\$8,000**

**Operating Budget Needed – \$62,500**

Treatment Materials – Feed for 4-Poster units, pesticide products for 4-Poster and other treatments and fuel costs for application equipment – **\$45,000**

Printing costs – included costs for all printed materials (handouts, kiosk signage) for public information kiosks at park treatment areas – **\$5,000**

Mileage CCE Vehicle – Fuel costs for Cornell Cooperative staff travel to and from pilot program location – **\$2,500**

CCE Staff – Part time efforts of three Cornell Cooperative educators to construct and upkeep public education kiosks within the management area and organize additional outreach events and presentations based on public interest – **\$10,000**

**Suffolk County Capital Budget – \$0.00**

**Suffolk County Operating Budget – \$60,000 Total**

Vector Control Entomologist (30%) – \$30,000

Vector Control Staff (2 @ 20%) – \$30,000

- **Tick Control Advisory Committee**

The Suffolk County Tick Control Advisory Committee (“TCAC”) was re-established in September of 2016 to support the Tick Surveillance and Management Plan (“TSMP”). The duties of the TCAC include reviewing tick control methods and management options, providing advice to the TSMP, providing input to the annual vector control plan, and assisting in public education and the dissemination of information regarding the prevention of tick borne illnesses. Membership includes TSMP staff, other relevant county staff, a representative of the Southampton Hospital Tick-Borne Disease Resource Center, representatives of DEC pesticide and wildlife divisions, and a representative of NYS Office of Parks, Recreation and Historic Preservation. Additionally, an amendment has been filed to include a person with veterinary background to the committee.

### **Phase 1 – Secondary Priority**

- **Pest Control Operator Workshop and Educational Outreach**

Data collected through Suffolk County tick surveillance and field trial efforts will be shared with private pest control operators to increase the effectiveness of their efforts on private properties throughout Suffolk County.

**Capital Budget – None**

**Operating Budget – \$17,000**

Printing costs – included costs for all printed materials and handouts for all outreach efforts throughout the year – **\$5,000**

Mileage CCE Vehicle –Fuel costs for Cornell Cooperative staff travel to and from pilot program location – **\$2,500**

Cornell Cooperative educators (3) to organize and host numerous outreach events and presentations at various events and conferences – **\$9,500**

**Suffolk County Capital Budget – \$0.00**

**Suffolk County Operating Budget – \$3,000 Total**

Vector Control Entomologist (3%) – \$3,000

## **Phase 2 – Top Priority**

- **Development of EIS/SEQR**

Vector Control staff will work with and manage environmental impact statement consultant efforts throughout the process by providing needed data, existing studies and other items as required.

**Capital Budget Needed – \$450,000**

Environmental Impact Statement – Scoping of and completion of environmental impact statement for all tick management strategies and materials deemed effective on large scales through the Phase: 1 (Indian Island County Park) pilot program. Proven tick management strategies and materials may be used in the full scale pilot program and any future tick management efforts or recommendation for tick management in Suffolk County – **\$450,000**

**Operating Budget Needed – \$0.00**

**Suffolk County Capital Budget – \$0.00**

**Suffolk County Operating Budget – \$50,000 Total**

Vector Control Entomologist (30%) – \$30,000

Vector Control Chief Environmental Analyst (15%) – \$20,000

- **Implement and Manage Full Scale Pilot Program**

Tick management strategies, including deer management, and materials with proven efficacy found during the Phase: 1 (Indian Island County Park) large scale pilot program will be implemented at full scale in a Suffolk County park. Integrated implementation of the proven tick management strategies will allow continued evaluation of the overall effects of a full scale integrated tick management program and allow required evaluation of specific strategies as needed for the environmental impact statement process.

**Capital Budget Needed – \$195,000**

Full Scale Pilot Program – Full scale tick management strategy assessment for all strategies and materials with proven efficacy found during the Phase: 1 (Indian Island County Park) large scale pilot program. A Suffolk County park will have proven tick management strategies implemented simultaneously throughout the park as part of the SEQR process – **\$195,000**

**Operating Budget Needed – \$65,000**

Treatment Materials – Corn for 4-Poster units, pesticide products for 4-Poster and other treatment along with and fuel costs for application equipment – **\$65,000**

**Suffolk County Capital Budget – \$0.00**

**Suffolk County Operating Budget – \$50,000 Total**

Vector Control Entomologist (20%) – \$19,000

Vector Control Field Staff (4 @ 20%) – \$71,000