TOWN OF EAST HAMPTON
AGENDA REPORT

AGENDA ITEM: 6a

DATE: June 27, 2017

SUBJECT: New Police Vehicle Purchase

DEPARTMENT: Police

BACKGROUND

The Town is currently in the process of replacing the last two (2010) patrol vehicles in its inventory. Currently, the Police Department has a fleet of ten (10) marked patrol vehicles. One of which is used primarily for private duty or in an emergency, as a spare vehicle. We have already transferred one of our existing older cars to the ACO. Once these new vehicles have been purchased, we will be transferring the remaining older vehicles to DPW to be repurposed or sold.

We will be purchasing two 2017 Ford Police Interceptor Utility vehicles which are all-wheel drive vehicles. Included in the purchase price are a single person prisoner compartment and a rear sensor system. Each vehicle costs $28,631.70 for a total cost of $57,263.40. This purchase price does not include emergency lights, graphics and black and white vinyl wrap. The remaining funds, not to exceed $12,736.60 will be used to fully equip the vehicle.

MHQ, a Connecticut based company, currently holds a state contract for these vehicles (#12PFX0194) and I am recommending that Town Council authorize the Town to purchase from this contract.

RECOMMENDED MOTION

Resolved that the Finance Director be authorized to procure goods and services from MHQ, 401Elm Street, Marlborough, MA 01752 (with a location in Middletown, CT) in accordance with State of CT contract #12PSX0194 and authorize supplemental graphics and equipment expenditures not to exceed $70,000.00

ALTERNATIVE ACTIONS

Bid for vehicle purchase.

FISCAL IMPACT:

The new vehicle's estimated cost, supplemental graphics and equipment would be $ $69,560.98 and will be funded from the Police Capital Projects account. Said supplemental cost estimates are based on similar purchases made by the town in 2014 and 2015.

Estimate

6/15/2017 8:32:15 AM

MHQ, Inc.
401 Elm Street
Marlborough MA 01752
(508) 573-2600

Estimate: QC00000924
Quote Date: 6/15/2017
Expiration Date: 6/30/2017

Customer: 14043 **Contact** **Salesperson**

EAST HAMPTON CT, TOWN OF
20 EAST HIGH STREET

Sheehan, Marc

Quantity	Item	Unit Price	Extended Price
1	_TN	28,631.70000	
EA	New Truck/SUV Only		
	(2017) Ford Utility Police Interceptor AWD Base (K8A)	26723.00	
	CSPWarranty - Included 5 year/100,000 mile Ltd. Powertrain	0.00	
	Exterior Color: G1 G1-Shadow Black	0.00	
	Interior Code: 01-RW - Cloth Front/Vinyl Rear (Charcoal Black Only)	0.00	
	K8A - 2017 Ford Utility Police Interceptor AWD Base	0.00	
	Standard Engine	0.00	
	17T - Factory Dome Light(SEQ:17)	45.50	
	153 - License Plate Bracket(SEQ:16)	0.00	
	51T - Factory Spot Light - Whelen LED(SEQ:19)	382.20	
	549 - Heated Mirrors(SEQ:11)	59.00	
	59B - Fleet Key - 1284X(SEQ:20)	45.50	
	60A - Pre-wiring for Grille, Speaker & Siren(SEQ:18)	45.50	
	60R - Noise Suppression Bonds(SEQ:12)	95.00	
	66B - Tail Light Solution(SEQ:21)	410.00	
	66C - Rear Lighting Solution(SEQ:13)	435.00	
	76R - Reverse Sensing(SEQ:14)	270.00	
	86P - Front Headlamp/Police Interceptor Housing Only(SEQ:15)	121.00	

Sale Amount: 28,631.70
Sales Tax: 0.00

Total Amount: 28,631.70

AGENDA
ITEM # 7a

DRAFT

Ordinance to be considered if Connecticut House Bill 6329 (File No. 750) as amended, fails to pass in the current session of the State Legislature. Passage of HB 6329 will effectively render this draft ordinance unnecessary, in my opinion.

Use or disposal of hydraulic fracturing waste prohibited

(a) For the purposes of this section:

(1) "Disposal" means the discharge, deposit, injection, dumping, spilling, leaking or placing of any waste into or on any land or water so that such waste, or any constituent of such waste, may enter the environment, be emitted into the air or discharged into any waters of the state;

(2) "Hydraulic fracturing" means the process of pumping a fluid into or under the surface of the ground in order to create fractures in rock for exploration, development, production or recovery of gas. "Hydraulic fracturing" does not include the drilling or repair of a geothermal water well or any other well drilled or repaired for drinking water purposes;

(3) "Person" means any individual, firm, partnership, association, syndicate, company, trust, corporation, limited liability company, municipality, agency or political or administrative subdivision of the state;

(4) "Storage" means the holding of waste for a temporary period, at the end of which the waste is treated, disposed of or stored elsewhere;

(5) "Transfer" means to move from one vehicle to another or to move from one mode of transportation to another;

(6) "Treat" means any method, technique or process designed to change the physical, chemical or biological character or composition of any waste.

(7) "Waste from hydraulic fracturing" means any wastewater, wastewater solids, brine, sludge, drill cuttings or any other substance used for or generated secondarily to the purpose of hydraulic fracturing.

(b) No person shall collect or transport untreated waste from hydraulic fracturing for receipt, acceptance, storage, disposal or transfer in the Town of East Hampton.

(c) No person may sell, offer for sale, barter, manufacture, distribute or use any product for anti-icing, de-icing, pre-wetting or dust suppression that is derived from or that contains waste from hydraulic fracturing unless such product has been approved for such use by the CT DEEP.

(d) No provision of this section shall be construed so as to affect any provision of Chapter 264 – Sewer Use, Chapter 269 – Solid Waste, or Chapter 273 – Streets and Sidewalks.

AGENDA
ITEM # 8a

Department of Revenue Services
State of Connecticut
(Rev. 03/17)

Municipality: East Hampton

Form NAA-01

2017 Connecticut Neighborhood Assistance Act (NAA) Program Proposal

This form **must** be completed and submitted to your municipality for approval. All items **must** be completed with as much detail as possible. If additional space is needed, attach additional sheets. Please type or print clearly. See attached instructions before completing. **Do not submit this form directly to the Department of Revenue Services.**

Part I — General Information

Name of tax exempt organization/municipal agency: Epoch Arts, Inc.

Address: 27 Skinner Street, East Hampton, Ct. 06424

Federal Employer Identification Number: 11-3760142

Program title: Makerspace Energy Conservation Project

Name of contact person: Elizabeth Namen

Telephone number: (860) 267-2597

Email address: elizabeth@epocharts.org

Total NAA funding requested ($250 minimum, $150,000 maximum): $ 150,000.00

Is your organization required to file federal Form 990 or 990EZ, Return of Organization Exempt from Income Tax?

☒ Yes ☐ No

If **Yes**, attach a copy of the **first page** of your most recent return.

If **No**, attach a copy of your determination letter from the U.S. Treasury Department, Internal Revenue Service.

Part II — Program Information

Check the appropriate description of your program:

100% credit percentage

- [X] Energy conservation; or
- [ ] Comprehensive college access loan forgiveness (see Conn. Gen Stat. §12-635(3)).

60% credit percentage

- [ ] Job training/education for unemployed persons aged 50 or over;
- [ ] Job training/education for disabled persons;
- [ ] Program serving low-income persons;
- [ ] Child care services;
- [ ] Establishment of a child day care facility;
- [ ] Open space acquisition fund; **or**
- [ ] Other (specify): _____

Description of program: _____

Epoch Arts will renovate an unoccupied space in our redeveloped Brownsfield arts center. We will build multiple artist studios and an open workspace designed to connect people with culture and community. The fit out of the space requires several energy conservation strategies, including window replacement, envelope insulation, HVAC installation and LED lighting. The development and transformation of this space will allow artists an opportunity to create, promote, share, teach and reach their community with a variety of art forms. Makerspace will provide incentives for artists to undertake collaborative projects within the community.

Need for program: _____

A Makerspace is in demand based on the feedback and communication we have with local artists, town officials,agencies, businesses and schools. With the lack of a Community Arts Center within the local region, Epoch Arts is the only Arts Center in the area. We have proven to be an active community resource and our community needs this next strategic step. This grant will allow us to significantly reduce operating costs and the environmental impact of the newly renovated space. The existing windows are single paned and are beyond their expected life and the existing exterior walls lack any form of insulation.

Neighborhood area to be served: _____

East Hampton CT, including Middlesex County

Plan to implement the program: _____

See Attachment

Attachment to Epoch Arts Makerspace Energy Conservation Project: NAA Application 2017

Plan to Implement the Program:

Planning for the Makerspace Energy Conservation Project is in progress and the Neighborhood Assistance Act will allow us to secure funding through business partnerships. Other build out costs will be covered by private donations, matching and private grants and in kind donations. Fundraising efforts began in the spring of 2017 and will continue with a corporate giving initiative, dedicated fundraising efforts and art events. Community support and input will insure we meet our project goals. We continue to form relationships with town agencies and civic organizations to offer positive, productive opportunities for our community. Volunteers, artists and staff are in place to begin our project. The community based Makerspace design aligns with the mission and vision of Epoch Arts. Renovations and remodeling plans are being developed through close relationships with contractors, architects and our Brownsfield program. This project will create a functional, energy efficient art space for our community.

Timetable:

Program start date: Oct. 15th 2017

Program completion date: Oct. 1st 2019

The program completion date must not be more than two years from the program start date. A certified post-project review is due to the municipality overseeing implementation no later than three months after program completion date for all projects receiving $25,000 or more in NAA funding.

Part III — Financial Information

Program Budget:

Complete in full. Expenditures must equal or exceed total funding.

Sources of Revenue:

NAA funds requested	$150,000.00
Other funding sources - itemized sources:	
a) Corporate Initiative Giving	$7,000.00
b) Private Donations	$3,000.00
c)	
d)	
Total Funding:	$160,000.00

Proposed Program Expenditures:

Direct operating expenses - itemized description:	
a) Double Glazed Windows	$90,000.00
b) Envelope Insulation	$15,000.00
c) HVAC	$30,000.00
d) LED Lighting	$15,000.00
Administrative expenses - itemized description:	
a)	$0.00
b)	$0.00
c)	$0.00
d)	$0.00
Total Proposed Expenditures:	$150,000.00

Part IV — Municipal Information

To be completed by the municipal agency overseeing implementation of the program

Name of municipal agency overseeing implementation of the program: Town of East Hampton

Mailing address: 20 East High Street, East Hampton, CT 06424

Name of municipal liaison: Michael Maniscalco, Town Manager

Telephone number: 860-267-4468

Fax number: 860-267-1027

Email address: mmaniscalco@easthamptonct.gov

Post-Project Review

Is a post-project review required for this proposal?

☒ Yes ☐ No

If **Yes**, date post-project review due:

November, 2019

Date

2017 Connecticut Neighborhood Assistance Act (NAA) Program Proposal Instructions

Complete all items on **Form NAA-01**, *2017 Connecticut Neighborhood Assistance Act (NAA) Program Proposal.* Incomplete applications will **not** be accepted. Direct inquiries to Department of Revenue Services (DRS), Neighborhood Assistance Act Program, Attn: Research Unit, 450 Columbus Blvd Ste 1, Hartford CT 06103-1837, or call **860-297-5687**.

Part I General Information

Enter the name of the tax exempt organization or municipal agency, address, Federal Employer Identification Number, and email address.

Program Title: Assign a unique program title to each program for which your organization is making an application.

Federal Form 990: Attach a copy of the first page of your organization's most recent federal Form 990 or Form 990EZ. If your organization is not required to file either Form 990 or Form 990EZ, attach a copy of the determination letter from the Internal Revenue Service.

Part II Program Information

Description of Program: Describe the program, including information about how the program will operate, its benefit to the community, how recipients will be selected, and any measures used to determine the program's impact on the community.

Need for Program: Demonstrate a need for this program. For example, provide relevant statistics.

Neighborhood Area to Be Served: Describe the neighborhood or municipality this program will serve.

Plan to implement the program: Describe how the program will operate. Identify other persons or organizations involved in the administration of the program.

Timetable: Indicate the starting and completion dates of the program. The program completion date must not be more than two years from the program start date.

Part III Financial Information

Each program proposal must include a program budget that includes all sources of funding and all anticipated expenditures. The information provided in the budget may be used during a post-project audit.

Sources of Revenue: The budget must include the requested NAA funding and any other anticipated revenue sources.

NAA Funding Requested: Indicate the total amount your organization is requesting for its program. This amount may not exceed the total proposed expenditures. Please note that the minimum NAA funding is $250, with a maximum funding of $150,000 per organization or agency per year.

Other Funding Sources: Provide a detailed description(s) and the amount(s) of all funding sources.

Proposed Program Expenditures: The budget must include a detailed description and the amount of all direct operating and administrative expenditures. **Expenditures must equal or exceed total funding.**

Direct Operating Expenses: Expenses include materials, equipment, wages, salaries, tuition fees, sub-contracting services, and any other expenses needed to administer the program.

Part IV Municipal Information

This part is to be completed by the municipal agency overseeing implementation of the program.

Municipal Liaison: The municipality must designate an individual to serve as a liaison with DRS for all NAA matters.

Post-Project Review: Any program receiving $25,000 or more in NAA funding is required to provide a post-project review, prepared by a certified public accounting firm, to the municipality overseeing the program. This review must be submitted to the municipality no later than three months after the program completion date.

AGENDA
ITEM # 10e

Sirois, Cathy

From: Maniscalco, Mike
Sent: Friday, June 23, 2017 8:10 AM
To: Sirois, Cathy
Subject: FW: Status of North Main Street - Christopher Brook Project

For Packet

Michael Maniscalco, MPA
Town Manager
Town of East Hampton
20 E. High St.
East Hampton CT, 06424

860-267-4468
Please note the change in email to: mmaniscalco@easthamptonct.gov

Follow us on Twitter @EHTown_manager

From: Carducci, Jennifer
Sent: Monday, June 12, 2017 2:12 PM
To: Maniscalco, Mike <mmaniscalco@easthamptonct.gov>
Cc: Michelson, Dean <dmichelson@easthamptonct.gov>; Jylkka, Jeff <jjylkka@easthamptonct.gov>
Subject: Status of North Main Street - Christopher Brook Project

Mike – Upon your request, I am forwarding the following information, received from Steve Shoenfield, Inspector on the Project.

Allotted amount	$595,502.00
Spent	$682,836.43
Overage*	$ 87,334.43 (using the 80/10/10 split, this would make Town's responsibility $8,733.44)

*In overage, $24,976 was flaggers
$ 4,956 was flagger overtime
$41,917 was Police as traffic control
$71,849

The difference of $15,485 is comprised of actual project items that came in under budget and may lower the overage amount – thus (using the 80/10/10 split) our responsibility may be as low as $7,184.
Please note these numbers are tentative as the project has not closed out yet.

Dean

By:
Jennifer Carducci

NWQEP NOTES

The NCSU Water Quality Group Newsletter

Number 90 July 1998 ISSN 1062-9149

North Carolina Cooperative Extension Service
NORTH CAROLINA STATE UNIVERSITY
COLLEGE OF AGRICULTURE & LIFE SCIENCES

PROJECT SPOTLIGHT

Integrative Study Links Gypsy Moth Defoliation, Nitrogen Leakage and Surface Water Quality in Mid-Atlantic Region

Dan Fiscus
University of Maryland Center for Environmental Science,
Appalachian Laboratory

Last fall, hydrologist Dr. Keith Eshleman and colleagues began studying the links between gypsy moth defoliation and nitrate (NO_3) loss from forests and subsequent surface water NO_3 loading. In November I joined the staff of the Appalachian Laboratory, part of the University of Maryland Center for Environmental Science (UMCES), and began work as a research assistant on this project. The objective of the study is "to develop, test, validate and demonstrate an analytical framework for assessing regional-scale forest disturbance in the Mid-Atlantic by establishing a multi-scale linkage between forest disturbance and forest nitrogen export to surface waters." This research will provide information on forested lands to assist efforts such as the Chesapeake Bay Agreement in achieving the goal of reducing nutrient loading of the Bay. I would like to provide a general description of the study, report some preliminary results, and suggest several ways that this study may be of interest to those involved in nonpoint source control and watershed management.

The Research Project

Funded by a three-year grant from EPA, the official title of this study is "Assessment of Forest Disturbance in the Mid-Atlantic Region: a Multi-scale Linkage Between Terrestrial and Aquatic Ecosystems." Eshleman, landscape ecologist Dr. Robert Gardner, ecosystems ecologist Dr. Steven Seagle and other co-investigators on this project from the Appalachian Laboratory are joined by researchers at the University of Virginia and Oregon State University. Overall the team is diverse and participants bring a multitude of scientific talents and tools with which to perform this large-scale integrative study.

The current management plan for the Chesapeake Bay is to reduce nutrient loadings by 40%. Policy and modeling related to agricultural and urban land uses are the major emphases of these efforts. In order to achieve the overall reduction goal, and to have accurate predictions of overall nitrogen (N) loading to the Bay, this study suggests that the role of forested watersheds must also be considered. Forested watersheds are extensive, are intimately linked to hydrology and nutrient cycling regimes, and are altered by both natural and human disturbances. The gypsy moth presents an interesting, challenging case study on which to develop and test integrative methods for understanding regional-scale watershed dynamics.

Background Information

Gypsy moth (*Lymantria dispar*) causes a regional-scale disturbance, and its impacts result in the defoliation of millions of acres of forest annually (information on gypsy moth from the web pages at Virginia Tech, http://www.gypsymoth.ento.vt.edu/gypsy.html). First introduced near Boston, MA, in 1869, gypsy moth is native to Europe and Asia. Its range has spread steadily southward to cover New England and most of the Mid-Atlantic. The caterpillars feed on over 300 species of trees and shrubs but prefer oaks. Natural controls, including parasites, predators and diseases, can curtail infestations after a few years, but do not prevent episodic, widespread outbreaks, often leading to complete defoliation. Human controls include spraying of the *Bacillus thuringiensis* (BT) organism and the chemical diflubenzuron. Timing of life cycle stages vary with region and climate. In Virginia, caterpillars hatch in April or May and feed through the end of June. Trees usually survive a single defoliation, but may be weakened or killed by repeated attacks. Tree mortality and changes in physiological processes are linked to evapotranspiration and nutrient uptake, and thus to watershed-level nutrient and hydrological dynamics. For forested landscapes in the U.S., gypsy moth is perhaps the largest scale natural disturbance and most damaging pest organism.

The Chesapeake Bay Watershed is estimated to be 54% forested, compared to 31% agricultural land use (all reference literature may be found in Eshleman et al. (in press) or via email to the author — contact information listed below). Surface and ground water supplies filtered through forested lands are generally of high quality relative to other land uses. However, their majority coverage for the Chesapeake watershed means that even though forests are estimated to export just 3.4 kg NO_3/ha annually, NO_3 flux from forests is considered the largest single nonpoint source of N to the Chesapeake Bay. Eshleman and colleagues at the University of Virginia have found that nitrate export can increase 50-fold following defoliation by gypsy moth larvae.

Taken together, earlier studies also suggest that defoliation by insects such as gypsy moth must be considered as an alternative to the "nitrogen saturation" hypothesis for explaining elevated levels of dissolved N leakage from forests. Some propose that as atmospheric N deposition increases, forests may reach a limit in their ability to retain N and begin to leak more to surface waters. In studies of both types, NO_3 loss has been observed to be dominated by stormflow fluxes. While the specific biogeochemical link between defoliation and NO_3 export is not known, Eshleman and co-workers present strong evidence that gypsy moth has been the cause of the large spikes in NO_3 flux. In their latest article (Eshleman et al., in press) in which five small watersheds in Maryland and Virginia were studied, they report that 1) there was no appreciable NO_3 export during the 11-year period prior to a major defoliation in 1991; 2) no large-scale defoliations were recorded prior to 1991; 3) all five watersheds are dominated by oak species which gypsy moth larvae prefer to other tree species; and 4) increases in NO_3 flux were synchronous among the five watersheds suggesting a regional-scale rather than local disturbance. Nitrate export from one of these Virginia watersheds, White Oak Run, is shown in Figure 1. Further study will be required to identify the mechanism by which defoliation leads to an increase in NO_3 loss from forests to streams.

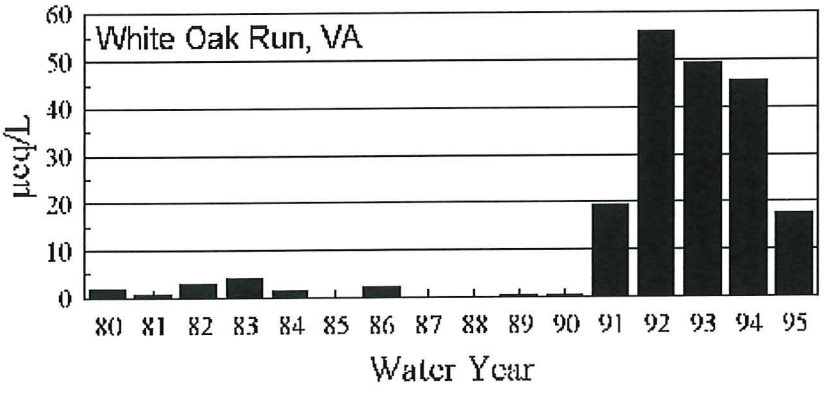


Figure 1. Nitrate export (flow-weighted annual concentration) for White Oak Run watershed. Major defoliation occurred in 1991.

While not pursuing this unknown mechanism for now, Eshleman plans to estimate the total NO_3 load to the

Chesapeake from forests and to predict how NO_3 fluxes from Mid-Atlantic forests might change in the future, with insect defoliations and as forest species composition changes. The research plan is to demonstrate a method of extrapolating knowledge of small watershed dynamics up to the subregional and eventually the regional levels. In the first year (through Fall of 1998), 25 small, intensively-studied watersheds, and one larger pilot study watershed, will be characterized for forest composition and defoliation, and these then linked to NO_3 leakage. These watersheds are located in five states throughout the region. In the second and third years of the project, researchers will combine monitoring data, modeling and intensive field studies in order to link defoliation disturbance, NO_3 flux and forest species composition at the landscape scale. The monitoring data used will be that of the EPA's EMAP Surface Waters Program.

A key component of Eshleman's approach is a linear response model he has developed. The model is designed to describe the annual NO_3 export resulting from a single forest disturbance using a linear impulse response function model. The NO_3 export from multiple forest disturbances in time can then be estimated by integrating over all the disturbances. Eshleman expects that this model would be effective for other types of disturbance, but will develop it first with the case of gypsy moth defoliation. For this case, his Unit Nitrogen Export Response Function (UNERF) for a single year is a function of 1) whether defoliation occurred that year, 2) the proportion of forest land cover in the watershed, 3) the proportion of oak basal area, and 4) the proportion of oak defoliation. The UNERF also incorporates an estimate of the historical baseline NO_3 export from the watershed in the absence of defoliation. The UNERF is analogous to determination of a unit hydrograph from actual storm hydrographs for known rainstorm events. Eshleman has found that, for watersheds studied thus far, this model provides a good approximation of the NO_3 flux response. Response functions have a similar shape, but vary in their baseline and maximum NO_3 fluxes, and decay constants for return to normal after disturbance. Eshleman plans to use other data to parameterize UNERF models for each of the 25 intensively-studied watersheds in this project.

Ultimately, the empirical UNERF model will be linked to a GIS system and thus enable estimation and mapping of disturbance-induced NO_3 export at multiple spatial scales. Putting all the pieces together will involve 1) estimates and map layers of oak coverage; 2) digitizing or obtaining defoliation maps; 3) developing specific UNERF models for each watershed as well as generalized UNERF's; 4) using the linked model and GIS to predict NO_3 export; and 5) comparing predictions of NO_3 export with actual NO_3 export at several scales for which data is available. Forest classification methods will be refined with the aid of field sampling of watersheds this summer. This analytical framework will provide a demonstration of steps needed for estimation of NO_3 export due to forest disturbance from any watershed, and from the entire Mid-Atlantic region.

Another goal of this project is to examine the impacts of gypsy moth disturbance on forest species composition. Widespread changes in forest composition in the Mid-Atlantic are known such that oak species are being replaced by maple, beech and other shade-tolerant species. Likely causes of this change in species are reduction in fires (maple and beech are more susceptible to fire) and selective cutting of oaks. Gypsy moth-induced mortality may also contribute to this shift. Since vegetation is linked to hydrologic and nutrient dynamics of watersheds, this change may also affect variability in, and predictions of, NO_3 loading from forested watersheds over time.

Pilot Study — Young Woman's Creek Watershed, Pennsylvania

As an initial test, we have applied the methods developed so far to a pilot study watershed. Young Woman's Creek (YWC) watershed in north central Pennsylvania was chosen for this phase of the research. YWC watershed is much larger than others studied so far - 119 km^2 compared to the 2-15 km^2 size of the intensively-studied watersheds. YWC is located in the Northern Unglaciated Allegheny Plateau ecoregion, whereas most of the previous studies have been in Northern Ridge and Valley ecoregion. Forest types also differ: the Maryland and Virginia watersheds are predominantly oak, while YWC is mostly maple-beech-birch. These differences present challenges for dealing with increased variability and scale for the UNERF model and the project overall. YWC is 99.6% forested, which makes it a good case study in that little or no NO_3 export will be derived from agricultural or urban land uses. Elevation in the watershed ranges from 250 to 690 m above sea level. Based on the Multi-resolution Land Classification (MRLC) data from the EPA and Chesapeake Bay Program, the forest cover is 6% evergreen, 74% deciduous and 20% mixed evergreen-deciduous. YWC drains into the Susquehanna

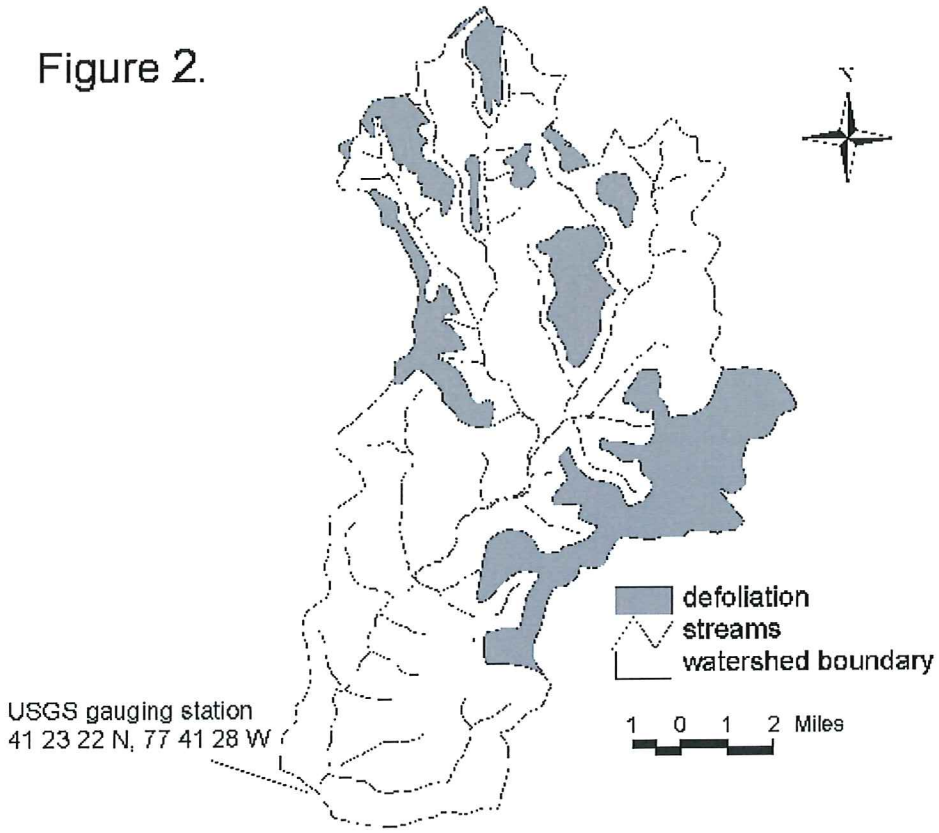
River basin on its way to the Chesapeake Bay.

As an example, the extent of gypsy moth defoliation in YWC in 1990 is shown in Fig. 2. This map was made from sketches drawn on county topographic maps during aerial flyovers. Areas of defoliation were transferred to a 7.5 minute USGS quad map and then digitized. For YWC we now have maps spanning thirty years, from 1964 to 1994. In 1990 approximately 24% of the watershed was defoliated, mostly those stands in the higher elevations. To complete this pilot study, we will generate maps of estimated oak coverage, plug the calculated percentage areas of oak and defoliation into the UNERF model to estimate NO_3 export, and see how well it depicts actual NO_3 export.

Nitrate export is estimated on an annual basis. In preliminary results, defoliation-induced elevation in NO_3 export from YWC does not appear as pronounced as that in Virginia or Maryland. In USGS stream flow and NO_3 data, which we have in complete form for the 1980 to 1995 period, actual peak NO_3 fluxes were only 50-100% greater than baseline amounts, compared to 50-fold increases observed in other studies. Most likely this difference was due to less oak dominance and a lower degree of defoliation. The baseline NO_3 export was also much higher for YWC. This higher baseline leakage may be due to greater forest maturity of YWC, or perhaps to geological factors such as soil types and parent materials of the region. It is not surprising then that the NO_3 leakage signal from YWC might be attenuated relative to that seen in the five more southerly watersheds. Further analysis of this preliminary data and a manuscript summarizing the YWC pilot study will be completed this summer.

Young Woman's Creek (PA) Watershed
Gypsy Moth Defoliation 1990

Figure 2.



Implications for Watershed Management

Several aspects of this study may be of general value in nonpoint source control and watershed management. Interactions of flow, disturbance and nutrient leakage are a common theme. Higher NO_3 fluxes from forests often correspond with warm and wet years, and peak about one year after defoliation events. Potential interactions among natural and anthropogenic disturbances, such as the short term, "acute" defoliation and the long term, "chronic" nitrogen deposition from anthropogenic atmospheric sources may become important. Most watersheds are sinks for N from atmospheric deposition, and disturbance may alter them such that they cease to retain N deposition for several years. The large spatial extent and dynamic nature of forests make clear the importance of understanding the biogeochemical impacts of forested watersheds on water quality. This study also highlights the importance of understanding ecological dynamics at multiple scales and resolutions, from small watersheds and annual time frames, to entire regions and times on the order of decades. Lastly, this approach that combines monitoring data, modeling and intensive field work, as well as scientists with diverse training and backgrounds, appears well-suited to the challenge of understanding nutrient dynamics in such large, heterogeneous landscapes as the Mid-Atlantic region. We hope that this study will be of use beyond the gypsy moth case, and will serve as a general method for applied understanding of landscape-level disturbance and the links to water quality.

For more information

Dan Fiscus, Research Assistant, fiscus@al.umces.edu
Keith Eshleman, Associate Professor, eshleman@al.umces.edu
Home page of the UMCES Appalachian Laboratory:
http://www.al.umces.edu
UMCES Appalachian Laboratory
Gunter Hall - Frostburg State University
Frostburg, MD 21532
(301) 689-3115

Literature cited

Eshleman, K. N., R. P. Morgan II, J. R. Webb, F. A. Deviney, and J. N. Galloway. 1998.*Temporal patterns of nitrogen leakage from Mid-Appalachian forested watersheds: role of insect defoliation.* Water Resources Research (In press).

The author would like to thank Nancy Castro, UMCES Appalachian Lab, for major technical assistance with this article.

INFORMATION

New National Water Quality Inventory is Available

The US Environmental Protection Agency has released its 1996 National Water Quality Inventory, a biennial survey of the nation's water quality. Consistent with data reported in the 1994 inventory, 40 percent of the nation's surveyed waters remain too polluted for swimming, fishing, and other recreational activities. For rivers and streams, runoff from agricultural lands remains the largest source of pollution, affecting 25 percent of all surveyed river miles. The 1996 report is the result of surveys conducted by states in 1994 and 1995 of 19 percent of the nation's river miles, 40 percent of lake acres, and 72 percent of estuarine square miles.

A 12-page summary entitled *Report Brochure: National Water Quality Inventory 1996 Report to Congress,* a 197-page detailed summary entitled *The Quality of Our Nation's Water: 1996* and selected chapters from the 588-page *Report to Congress* can be found on EPA's Office of Water website at http://www.epa.gov/305b/. Copies of the *Report Brochure: National Water Quality Inventory 1996 Report to Congress* (EPA 841-F-97-003) are available from the National Center for Environmental Publications and Information (NCEPI) at 1-800-490-9198. *The Quality of Our Nation's Water: 1996* (EPA 841-S-97-001) and the *Report to Congress* (EPA 841-R-97-008) will be available soon from NCEPI. For further information, contact George Doumani at (202) 260-3666.

Backyard Conservation Campaign

The Natural Resources Conservation Service (NRCS), National Association of Conservation Districts (NACD), and Wildlife Habitat Council (WHC) have joined forces to promote the new "Backyard Conservation" initiative. The campaign was formally launched on Earth Day and is planned as a 2-3 year campaign.

The Backyard Conservation campaign will educate the non-ag community about the conservation practices that farmers and ranchers use everyday. It also gives homeowners and city residents an opportunity to do something in their yards that can contribute to environmental health and good land stewardship.

The campaign features 10 conservation practices:

- Backyard pond
- Backyard wetland
- Composting
- Mulching
- Nutrient management
- Pest management
- Terracing
- Tree planting
- Water conservation
- Wildlife habitat

A 28-page colorful booklet and tip sheets explaining the 10 featured practices are available free by calling 1-888-LAND-CARE. Only single copies are available free; bulk supplies can be ordered from NACD (1-800-825-5547). The tip sheets can also be downloaded from the NRCS website at http://www.nrcs.usda.gov by clicking on the Backyard Conservation button.

NACD also offers several items for sale that reinforce the conservation message and help reach the campaign's goals. These include a video, stand-up retail displays, poster, starter kit, and family fun pack that includes a board game and activity booklets. These are available at low cost from NACD at 1-800-825-5547.

WWW RESOURCES

A more complete list of World Wide Web sites that relate to nonpoint source pollution and water quality issues can be found at: http://www.bae.ncsu.edu/bae/programs/extension/wqg/issues /resource.html

National Library for the Environment

Visit the on-line National Library for the Environment at http://www.cnie.org. This site contains seven free information resources:

1. Hundreds of up-to-date objective, nonpartisan issue reports
2. Environmental education programs and resources
3. Environmental laws - local, state, federal, and international
4. An in-depth resource on population-environment linkages
5. A virtual library of ecology and biodiversity
6. Information on environmental conferences and meetings
7. Environmental careers and jobs

Funding Sources

The Water Quality Information Center (WQIC) at the National Agricultural Library (NAL) has compiled an

annotated listing of funding sources related to water resources.The listing is located at http://www.nal.usda.gov/wqic/funding.html

Changes or additions should be submitted to wqic@nal.usda.gov.

MEETINGS

Notice of Training Event

Working at a Watershed Level: Sept 14-18, 1998, Lexington, KY. Sponsors: US EPA, The Council of State Governments, other federal/state agencies. Barry Tonning, Tel: 606-244-8228, email: btonning@csg.org, web site: http://www.epa.gov/OWOW/watershed/wacademy/interfed/shedcors.html, Cost: $290 for one week of training.

Call for Papers

26th Annual Water Resources Planning & Management Conf: June 6-9, 1999, Tempe, AZ. Abstracts due: Aug 1, 1998. Erin M. Wilson, ASCE Technical Program Chair, Boyle Eng Corp, 165 S Union Blvd, Ste 200, Lakewood, CO 80228, Tel: 303-987-3443, email: ewilson@boyleengineering.com, web site: http://water99.asce.org

Meeting Announcements — 1998

JULY

Soil & Water Conservation Society 53rd Annual Conference - Balancing Land, Resources, & People: July 5-9, San Diego, CA. SWCS, 7515 NE Ankeny Rd, Ankeny, IA 50021-9764, Tel: 515-289-2331x16, email: sueb@swcs.org, general questions to: Tel: 515-289-2331x12, email: charliep@swcs.org

NWQMC National Monitoring Conference, Monitoring - Critical Foundations to Protect Our Waters: July 7-9, Reno, NV. GWPC, NWQMC Conference, 827 NW 63rd, Ste 103, Oklahoma City, OK 73116, Fax: 405-848-0722, web site: http://gwpc.site.net

3rd International Symposium on Tropical Hydrology & 5th Caribbean Islands Water Resources Congress: July 12-16, San Juan, Puerto Rico. AWRA, Attn: Tropical Hydrology & Caribbean Water Resources Symposium, 950 Herndon Pkwy, Ste 300, Herndon, VA 20170-5531, Tel: 703-904-1225, Fax: 703-904-1228

4th International Conference on Precision Agriculture: July 19-22, St. Paul, MN. Precision Ag Ctr, Attn: 1998 Precision Ag Conf, U of M, 439 Borlaug Hall, 1991 Upper Buford Cir, St. Paul, MN 55108-6028, Tel: 800-367-5363, Fax: 612-625-2207, email: tsvee@mes.umn.edu

Animal Production Systems & the Environment - An International Conference on Odor, Water Quality, Nutrient Management & Socioeconomic Issues: July 19-22, Des Moines, IA. Kay Snyder, Extended & Continuing Ed, Iowa State Univ, Ames, IA 50011-1112, Tel: 515-294-4202, email: kjsnyder@iastate.edu, web site: http://www.agconf.iastate.edu

AUGUST

1998 International Water Resources Engineering Conference: Aug 3-7, Memphis, TN. Amer Soc of Civil Eng, Conference & Expositions Dept, 1801 Alexander Bell Dr, Reston, VA 20191-4400, Tel: 800-548-2723x6009, Fax: 703-295-6144

**Cross Currents in Water Policy - UCOWR `98: Aug 4-7, Hood River, OR.** Dr. Tamim Younos, UCOWR `98 Technical Program Chair, Virginia Water Resources Research Ctr, 10 Sandy Hall, Virginia Tech,

Blacksburg, VA 24061-0444, Tel: 540-231-8039, Fax: 540-231-6673, email: tyounos@vt.edu

International Conference on China Environment Technology and Business: Aug 10-12, Beijing, P.R. China. Dr. Y. Yang Gong, Conf Chair, 98 Beijing International Conf, Louis Berger International Inc, 30 Vreeland Rd, Florham Park, NJ 07932, Tel: 973-678-1960x420, Fax: 973-676-3564, email: Ygong@louisberger.com, web site: http://www.chinaenvironment.net

Annual Meeting, American Fisheries Society, Challenges for the New Millenium - Shaping the Future of Fisheries Science and the Fisheries Profession: Aug 23-27, Hartford, CT. AFS, 5410 Grosvenor Lane, Ste 110, Bethesda, MD 20814, Tel: 301-897-8616, Fax: 301-897-8096, web site: http://www.esd.ornl.gov/AFS

3rd International IAWQ Conference on Diffuse Pollution: Aug 31-Sept 4, Edinburgh, Scotland. Ms. Rosemary Plessis, IAWQ Conf Coordinator, Scottish Environ Protection Agency, Erskine Ct, The Castle Business Park, Stirling FK9 4TR, Scotland, UK, Tel: +44(0)1786-457700, Fax: +44(0)1786-448040, web site: http://www.sepa.org.uk/iawq/iawqconf.htm

SEPTEMBER

Wetlands `98 - Integrating Wetland/Floodplain Ecosystems into Water Resources/Watershed Management: Sept 20-24, St. Louis, MO. Jon Kusler, Association of State Wetland Managers, Fax:(518) 872-2171, email: aswmi@aol.com. Still accepting abstracts.

Connections `98 - 2nd National Conference on Transportation, Wetlands, and the Natural Environment: Sept 16-18, New Bern, NC. Pam Cloer, CTE, c/o ITRE, NCSU, Box 8601, Raleigh, NC 27695-8601, Tel: 919-515-7990, email: pcloer@unity.ncsu.edu, web site: http://itre.ncsu.edu/itre/cte

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Sixth National Nonpoint Source Monitoring Workshop: *Interpreting Water Quality Responses to Land Treatment* September 21-24, 1998, Cedar Rapids, Iowa

Purpose: To bring together nonpoint source pollution specialists to share information on effective monitoring techniques, statistical analysis of watershed data, and the overall effectiveness of BMPs on improving water quality. The progress of the Section 319 National Monitoring Program (NMP) projects will be highlighted, as will other innovative water quality projects and monitoring techniques.

Sessions will focus on the following topics:

- Sediment Delivery in Watersheds
- Bioassessment - Analysis and Interpretation
- Calculating Appropriate Total Maximum Daily Loads (TMDLs) for Watersheds
- Proper Interpretation and Innovative Analysis of Water Quality Data
- Effectiveness of Nutrient and Pesticide Management on a Watershed Scale

The program will offer three days of indoor workshop sessions/talks and a day-long field trip. Concurrent trips will be offered: one to northeast Iowa (Clayton County) to visit the Sny Magill Creek and Big Spring projects, and a second trip to central Iowa to see the Walnut Creek National Wildlife Refuge in Jasper County and the Bear Creek project in Story County. (Walnut Creek and Sny Magill Creek are two of the U.S. EPA Section 319 NMP projects.)

For additional information, visit the Nonpoint Source Workshop Web Site at http://www.igsb.uiowa.edu/nmp98 or contact: Lynette Seigley *or* Carol Thompson, Nonpoint Source Workshop, 109 Trowbridge Hall, Iowa City, IA 52242-1319, Tel: 319-335-1575 *or* 319-335-1581, Fax: 319-335-2754, email: lseigley@igsb.uiowa.edu *or* cthompson@igsb.uiowa.edu

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OCTOBER

**WEFTEC `98 - 71st Annual Conf & Expo: Oct 3-7, Orlando, FL.** Water Env Federation, Attn: WEFTEC `98 Program Coordinator, 601 Wythe St, Alexandria, VA 22314-1994, Tel: 800-666-0206, Fax: 703-684-2471, email: confinfo@wef.org, web site: http://www.wef.org

Annual Convention, American Society of Civil Engineers, Countdown 2000 - Designing Tomorrow's Engineering Successes, Oct 18-21, Boston, MA. Liz Sigler, ASCE, 1801 Alexander Bell Dr, Reston, VA 20191-4400, Tel: 703-295-6300, Fax: 703-295-6144, web site: http://www.asce.org

Agriculture & Water Quality in the Pacific Northwest - Understanding Each Other & Working Together for a Better Future: Oct 20-21, Yakima, WA. Agriculture & Water Quality Committee, PO Box 1462, Spokane, WA 99210, Tel: 509-838-6653, Fax: 509-838-6685, email: farwest@ior.com, web site: http://wwwdwatcm.wr.usgs.gov/ccpt/ag_wq_conf98/call4present98.htm

7th International Conference on Computers in Agriculture: Oct 26-30, Orlando, FL. ASAE Meetings & Confs, 2950 Niles Rd, St. Joseph, MI 49085-9659, Tel: 616-429-0300, Fax: 616-429-3852, email: hq@asae.org, web site: http://www.agen.ufl.edu/~compconf/

NOVEMBER

**ENVIROSOFT `98 - Development & Application of Computer Techniques to Environmental Studies: Nov 10-12, Las Vegas, NV.** Sue Owen, Conference Secretariat, ENVIROSOFT `98, Wessex Institute of Technology, Ashurst Lodge, Ashurst, Southampton, S0407AA, UK, Tel: 44(0)170-329-3223, Fax: 44(0)170-329-2853, email: sue@wessex.ac.uk

1998 Annual Conference on Water Resources & Symposia on Management of Human Impacts on the Coastal Environment and Applications of Water Use Information: Nov 15-19, Point Clear, AL. AWRA, Attn: 1998 Annual Conference & Symposia, 950 Herndon Pkwy, Ste 300, Herndon, VA 20170-5531, Tel: 703-904-1225, Fax: 703-904-1228

EDITOR'S NOTE

In this issue of *NWQEP NOTES*, our feature article describes research currently underway on a subject not often associated with nonpoint source pollution — natural disturbance of forestland. In particular, this project is evaluating the link between gypsy moth defoliation in the Mid-Atlantic region of the U.S. and nitrogen loading of the Chesapeake Bay. It is important to understand the role that natural forest disturbance plays in contributing nutrients to surface waters, which potentially could be significant. With little control over forest dynamics and natural disturbances, gaining insight into disturbance-induced nutrient loss could possibly lead to more stringent water quality regulations on agriculture, urban development and forestry, land uses which we do have some degree of control over.

As always, please feel free to contact us regarding your ideas, suggestions, and possible contributions to this newsletter.

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AGENDA
ITEM # 12

Office of the COLLECTOR OF REVENUE
KRISTY MERRIFIELD, CCMC
kmerrifield@easthamptonct.gov

June 27, 2017

To: The East Hampton Town Council,

The documentation for the tax refunds listed below is available in the Office of the Collector of Revenue for your review. There are two refunds totaling $231.19.

Respectfully Submitted,

Kristy L. Merrifield, CCMC
Collector of Revenue

193.50 +
37.69 +
002
231.19 *