

# SUFFOLK COUNTY VECTOR CONTROL AND WETLANDS MANAGEMENT LONG TERM PLAN AND ENVIRONMENTAL IMPACT STATEMENT

## Technical Advisory Committee Meeting May 6, 2003

### Draft Minutes

The meeting was called to order at 10:25 and Jack Mattice, the chair, made opening remarks.

#### **Action Items:**

1. Minutes - A motion was made by Bill Wise, seconded by Stephen Terracciano, to approve the minutes of the February 10, 2003 TAC meeting. Approval was without objection after a correction of the spelling of "Reaven".
2. Funding Update - Walter Dawydiak reported on the attempts at obtaining supplemental funding. He also indicated that Environmental, Land Acquisition and Planning (ELAP) received the Budget Review Office memo regarding funds requested under the ¼% program, which they will review at the next scheduled meeting.
3. Membership List - It was determined that 13 of 21 voting members were present, representing a quorum. Discussion took place concerning designation of voting members from agencies and academic institutions, and several modifications were made to the membership list. At the next meeting the active voting members will be compiled, this number will be used to determine the size of a quorum. Further discussion involved whether SCDHS and SCDPW staff should be able to vote on TAC matters. Walt Dawydiak explained that the by-laws were modeled after the Peconic Estuary Program Technical Advisory Committee by-laws. Dawydiak stated that Suffolk County employees provide expertise on various topics, and would recuse themselves if there were a conflict of interest. Voting representation will be discussed at the next meeting.
4. By-Laws - The members considered the by-laws as amended by the chair. Several modifications and additions were made by committee members, including definition of the steering committee, assigning alternative representatives for voting members, requiring a simple majority to affect changes on the Committee and a 2/3 vote to amend the by-laws. A motion made by Bob Nuzzi, seconded by Mike Kaufman, to require a 2/3 majority for future amendment of the bylaws passed without objection.

#### **Workgroup Highlights:**

1. Suffolk County Department of Public Works Chemical Monitoring - *Dominick Ninivaggi* Ninivaggi provided an overview of the Suffolk County Vector Control program, including pesticide usage and acreage treated. In 2002 approximately 32,000 acres were treated with the larvicides altosid and Bti liquid, and in 2001 35,700 acres were treated with larvicides. Ninivaggi stated that the acreage treated with larvicides usually does not fluctuate much from

year to year. He stated that by increasing the areas treated with larvicides, the areas treated with adulticide are reduced.

Over the past ten years, Vector Control has reduced the amount of pesticides used for adult mosquito control. In 1994, 148,800 acres were adulticided, and in 2000, 68,496 acres were treated. In 2002, 29,250 acres were treated, 18,000 of which were for treated in response to West Nile Virus (WNV). Ninivaggi noted that, except for the WNV response acreage, these figures were calculated based on the total material used, and the standard dose/acre. This method provides a standard way of comparing pesticide use when materials are applied at different rates.

The Vector Control unit also experimented with alternative control methods including treating 45 acres at Smith Point Park with mosquito barrier (garlic oil) in 2002. Asked if this method could be applied throughout the county, he responded that garlic oil only kills mosquitoes within a small area (1-10 acres), and the SCVC program is much more broad scale.

Committee members questioned how the unit determines the viral response threshold. Ninivaggi stated it is based on surveillance and abundance of mosquitos in areas known to have virus in the past. Another questioned if the Vector Control unit tracked what other agencies/communities (e.g. Fire Island) spray. He responded that individuals or communities that hire insect control companies are not tracked, however, they hope to improve mosquito management coordination with the Fire Island communities in the future.

2. USGS Monitoring Surface Water and Bottom Sediment for Mosquito Insecticides - Stephen Terracciano - Terracciano explained this project would continue monitoring commenced in 2002 on the fate and transport of insecticides commonly applied by SCVC. USGS will collect 23 surface water samples and employ Semi Permeable Membrane Devices (SPMDs). SPMDs are passive samplers that integrate transient, low-level pesticides in streams and are designed to mimic the uptake of contaminants similar to that of fish gills. SPMDs provide a measure of the bioavailability of insecticides to fresh and salt-water fish, however, he stressed they are not literally testing for toxicity to fish.

Methoprene is a larvicide typically applied in slow-release briquettes or in liquid form by helicopter. Malathion, phenothrin and resmethrin are adulticides typically sprayed from the back of trucks or from the air. Piperonyl butoxide (PBO) is a chemical synergist mixed with pyrethroid insecticides to increase their effectiveness.

Water samples will be taken after a spray event; last year he was able to obtain samples within 30 minutes of an application. USGS will be monitoring for pyrethroid compounds (phenothrin and resmethrin), methoprene and malathion. Samples collected will be analyzed for all compounds. Analysis of last years SPMDs did not find any pyrethroids or methoprene, however, the finding of PBO places doubt on the analyses. This year two labs will perform the analyses. The draft annual report will be available from USGS within 4-8 weeks after the analytical data become available. Provisional data can be made available on request.

Enache (EPA) asked if samples would be taken prior to a spray event, and for a description of the methodology and equipment used by the lab. Terracciano said he would collect water samples prior to a spray event and provide information on the equipment/techniques (ultra low detection vs. standard methods) before the next meeting.

3. SCDHS Pesticide Deposition Monitoring - Robert Nuzzi, Robert Waters, Ken Hill

Bob Nuzzi gave a PowerPoint presentation on the results of the 2002 Vector Control pesticide deposition monitoring. The SCDHS Public & Environmental Health Laboratory (PEHL), with assistance from Office of Ecology staff, developed techniques to collect and quantify pesticide residues in near shore land areas during spray events.

A series of field and lab experiments were conducted. Through the lab experiments it was found that percent recovery of resmethrin and PBO generally decreased with increasing temperature and over time. The initial field experiments yielded similar recoveries. In subsequent field trials, the dishes were placed in an open cooler containing ice, which improved the average recovery considerably.

Prior to the actual spray event, Pyrex dishes were placed in commercial Styrofoam coolers containing ice, which were deployed at several sites along the spray route. Samples were retrieved shortly after the spray event, and delivered to the lab for analysis. Several committee members questioned the value of these studies. Nuzzi and lab director Ken Hill explained that it was an attempt to develop a fast, simple procedure for determining if pesticide was reaching the surface waters. Kelley Tucker suggested that such studies have been conducted, and the county would benefit from published reports. She agreed to provide additional information.

4. Cornell Cooperative Extension Biological Monitoring- Sandy Dumais -

Dumais spoke on behalf of Chris Smith. The DEC suggested that studies such as the caged fish were deserving of a separate meeting with committee members with knowledge of marine organisms. Others questioned the goals and methodologies and seconded that a workgroup be established to assist in reviewing the proposed program and its results.

5. Cornell Cooperative Extension Open Marsh Water Management - Emerson Hasbrouck

Hasbrouck discussed a modified marsh management project that he has been working on cooperatively, with the Town of East Hampton, in Accabonac Harbor and Northwest Creek. The current proposal would expand upon the work that occurred over the past 10 years in Accabonac Harbor. His data indicate high coliform bacteria counts at the mouths of the mosquito control ditches. The two goals of the modified OMWM are to reduce wildlife source coliform bacteria, and to decrease phragmites populations. He plans on hand installing 50 dams in a hundred + acre area by installing sand bags in the low marsh ditch system, and allow for tidal flushing over the dam. He stated that he has seen improvement in the water quality over the years. Several committee members questioned the monitoring component of the proposal and whether or not permits have been obtained. Hasbrouck stated he has years

of monitoring data for birds, insects, algae populations, invertebrates, vegetation and other information. He would seek state, federal and town permits simultaneously.

6. *Ducks Unlimited Open Marsh Water Management – Craig Kessler*

Ducks Unlimited has partnered with US Fish and Wildlife to design a true OMWM proposal at Wertheim National Wildlife Refuge in Shirley. They believe that the proposal will demonstrate that OMWM is a viable tool that can be used successfully in a comprehensive integrated pest management plan. The techniques utilized will include plugging the high marsh portion of the ditch, cleaning ditches, panne creation, and establishing fish reservoirs. He stressed that they will use practical methodology and incorporate monitoring of surface waters and plant communities. He cited the benefits of OMWM including controlling mosquito populations (allowing larvae-consuming fish access to the high marsh), decreased need for chemical application, restoring marsh hydrology and enhancing the wetland habitat. At the Wertheim site several different types of OMWM features will be employed. The advantage in using several types of alterations at the site is a function of the tidal regime, which is the most important factor in determining vegetative response. Kessler also noted that the costs for the proposal have been significantly reduced and USFWS will contribute matching funds.

The project will be on a 150-200 acre site on the east side of the Carmens River and, as per DEC request, they will begin pre-implementation monitoring in order to develop the best proposal. They will be working on preparing a survey to determine elevations and further refine the plans when the survey is completed.

The DEC had concerns for allowing OMWM anywhere on Long Island without sufficient pre construction monitoring in place. Ideally he would like to establish a tool for measuring the success and failure of OMWM projects. DEC permits are usually issued for 10 years and Kessler asked at what point it would be determined that the project caused significant problems that would require restoring the marsh to pre-project conditions. The DEC suggested that a separate meeting should be held to address OMWM issues.

**New Business (Mattice):**

- ✍ At the next meeting members will discuss how to handle conflict of interest (COI). Members with guidelines on COI were asked to submit them to the chair.
- ✍ Mattice suggested designation of a co-chair and recommended Dewitt Davies from Suffolk County Planning Department. Motion was made (Wise) and seconded (Ninivaggi) and carried unanimously to elect Davies as co-chair of the Technical Advisory Committee.
- ✍ Mattice suggested that small work groups be considered to discuss the caged fish study, OMWM and chemical fate and transport studies.

**Next Meeting :**

The next meeting of the TAC has been tentatively scheduled for June 10, 2003. George Proios will explore venues.