

R. Joe Simmons, Director

**Nancy M. Welch, MD, MHA, MBA,
Board of Commissioners, Chair**



Contributors:

Lisa Wagenbrenner, Biologist

Kirby Foley, Operations Director

R. Joe Simmons, Director

Jason Pevear, GIS Analyst

Amy Pippin, Fiscal and Office Administrator

Chesapeake Mosquito Control Commission

Annual Report

2011

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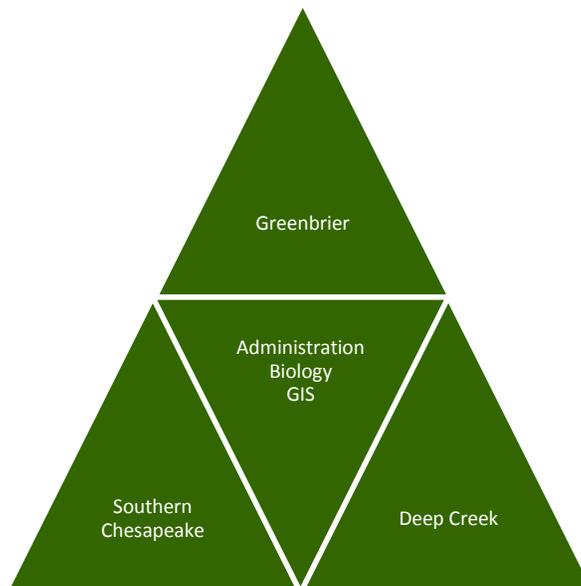
INTRODUCTION

The purpose of the Chesapeake Mosquito Control Commission is to conduct mosquito control activities in the City, as managed by a director who is appointed by a board of commissioners.

The Chesapeake Mosquito Control Board of Commissioners consists of six volunteer members who are residents appointed by the Chesapeake City Council; the seventh is a designee of the Virginia State Health Commissioner and serves as Commission Chair.

The goal of the Chesapeake Mosquito Control Commission is to reduce and control the mosquito populations using the safest and most effective means available. The ecologically based, integrated mosquito management (IMM) approach utilized relies heavily on natural mortality factors, and the control tactics employed disrupt the environment as little as possible. Adulticides are used during periods of mosquito-borne disease transmission or when source reduction and larval control have failed or are not feasible. All control activities and decisions are based on surveillance.

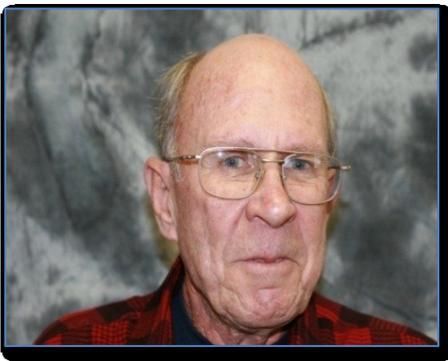
The Commission is made up of three service districts: Deep Creek, Greenbrier and Southern Chesapeake.



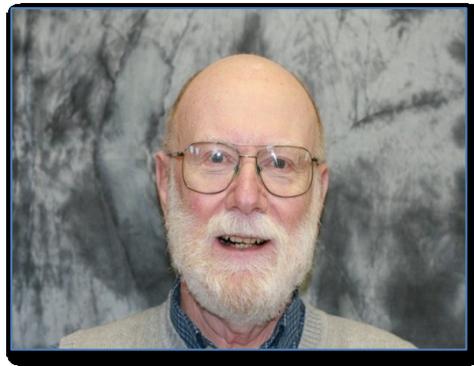
Board of Commissioners



Nancy Welch MD, Chairperson



Joe Davis



William Hoddinott



Robert Mann, Vice Chairperson



James Sawyer



Barry Thacker



Janie Tompkins

Commission Staff



R. Joe Simmons, Director

Central Office Staff	Biology Department	Mechanics
Kirby Foley, Operations Director	Lisa Wagenbrenner, Biologist II	Johnny Tyndell, Mechanic II
Amy Pippin, Fiscal and Office Admin.	Connie Gregg, Biology Technician	Michale Powell, Mechanic
Janet Haley, HR and Safety Admin.	Thomas Milan, Biology Intern	
Jason Pevear, GIS Analyst	Diane Abadam, Biology Intern	
Christina Coup, Office Support Spec.	Karen Akaratovic, Biology Intern	
Deborah Vines, Office Specialist		
Susan Freeman, Office Specialist		
Roger Burnham, Custodian		

Deep Creek District	Greenbrier District	Southern Chesapeake District
Allen Peoples, District Supervisor	Robert Whitaker, District Supervisor	Leroy Bohn, District Supervisor
Zollie Russell, Field Supervisor	Steve Lemnios, Field Supervisor	Steve McPherson, Field Supervisor
Ronald Wells, Senior Applicator	Mark Leary, Senior Applicator	Ronald Johnson, Senior Applicator
Shamsiddeen Ali, Applicator II	Jack Akers Jr., Field Technician II	Darin Brown, Senior Applicator
Patricia Scott, Applicator III	Gary Harmon, Applicator II	Jerry George, Senior Applicator
Claudia Holly, Applicator I	Jacqueline Snowden, Applicator II	Pat Solomon, Applicator I
Derrick Adams, Field Supervisor	Scott Stevens, Senior Applicator	Shaun Cadwalader, Field Technician
Martell White, Senior Applicator	John Cole, Applicator I	Winfred Cooper, Field Supervisor
Charles Darden, Applicator II	Tameka Smith, Applicator III	Richard Jones, Senior Applicator
Joseph Cato, Applicator III		Chris Gautier, Applicator II
Scott Gordon, Field Technician II		Fred Whitaker, Field Technician II

A “Bit” of History in Chesapeake, Virginia

The Chesapeake Mosquito Control Commission came into existence in 2003 through the consolidation of the five individual mosquito control commissions: Deep Creek, Great Bridge, South Norfolk, Washington Borough and Western Branch. The Norfolk County Board of Supervisors started three Commissions: the Deep Creek Commission was formed in 1948; the Washington Borough Commission in 1952; and the Western Branch Commission became official in January 1955.

Norfolk County became the City of Chesapeake in 1963 and in the 1960s, the Chesapeake City Council formed the Great Bridge and the South Norfolk Mosquito Control Commissions.

Mosquito Biology

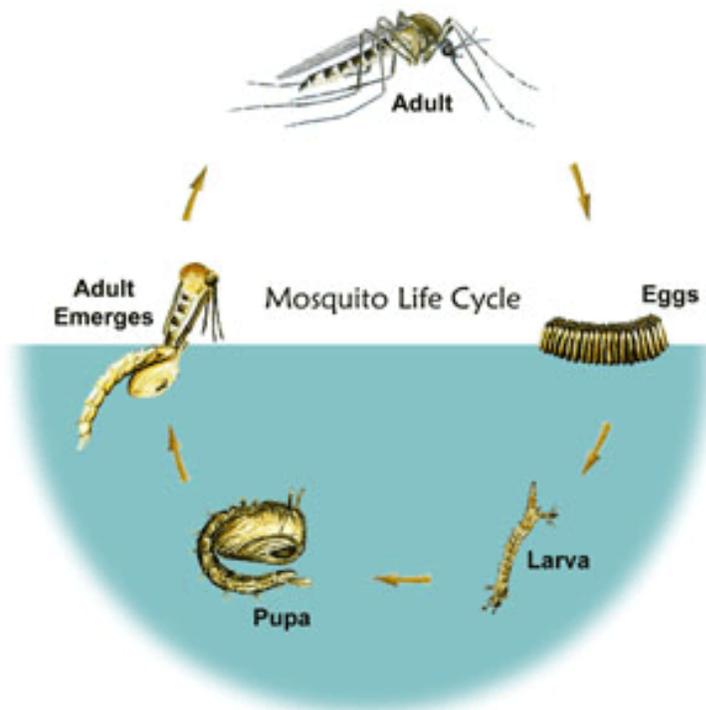
Mosquitoes are a part of the aquatic and the terrestrial food chains but are known more for their significance to man as pests, and especially as vectors of human and animal diseases.

A mosquito undergoes a complete metamorphosis by passing through four successive stages in its development: egg, larva, pupa and adult. Complete development can take as little as five days but normally takes ten to fourteen days, depending on the species and environmental conditions. With the exception of the adult, all stages require water to complete development.

After breeding, the adult female requires a blood meal for the development of viable eggs. The male mosquitoes feed on plant nectar and do not take blood meals. The adult female of some species lays her eggs in masses or “rafts” on the surface of the water. The other scenario involves mosquitoes that lay eggs on moist soil or other substrates in areas that will later be flooded with water. After two days, these eggs are ready to hatch but, if not flooded, can withstand drying for months. Heavy rains and flooding can produce extremely huge mosquito populations in short periods of time.

The adult female of *Anopheles* and some *Culex* pass the winter in hibernation in protected places, whereas others over-winter in the egg or larval stage.

The flight habits of mosquitoes vary greatly with the different species. Some stay near their aquatic habitats, while others may wander from a half, one, five, up to fifty miles.



IMPORTANCE OF MOSQUITO CONTROL

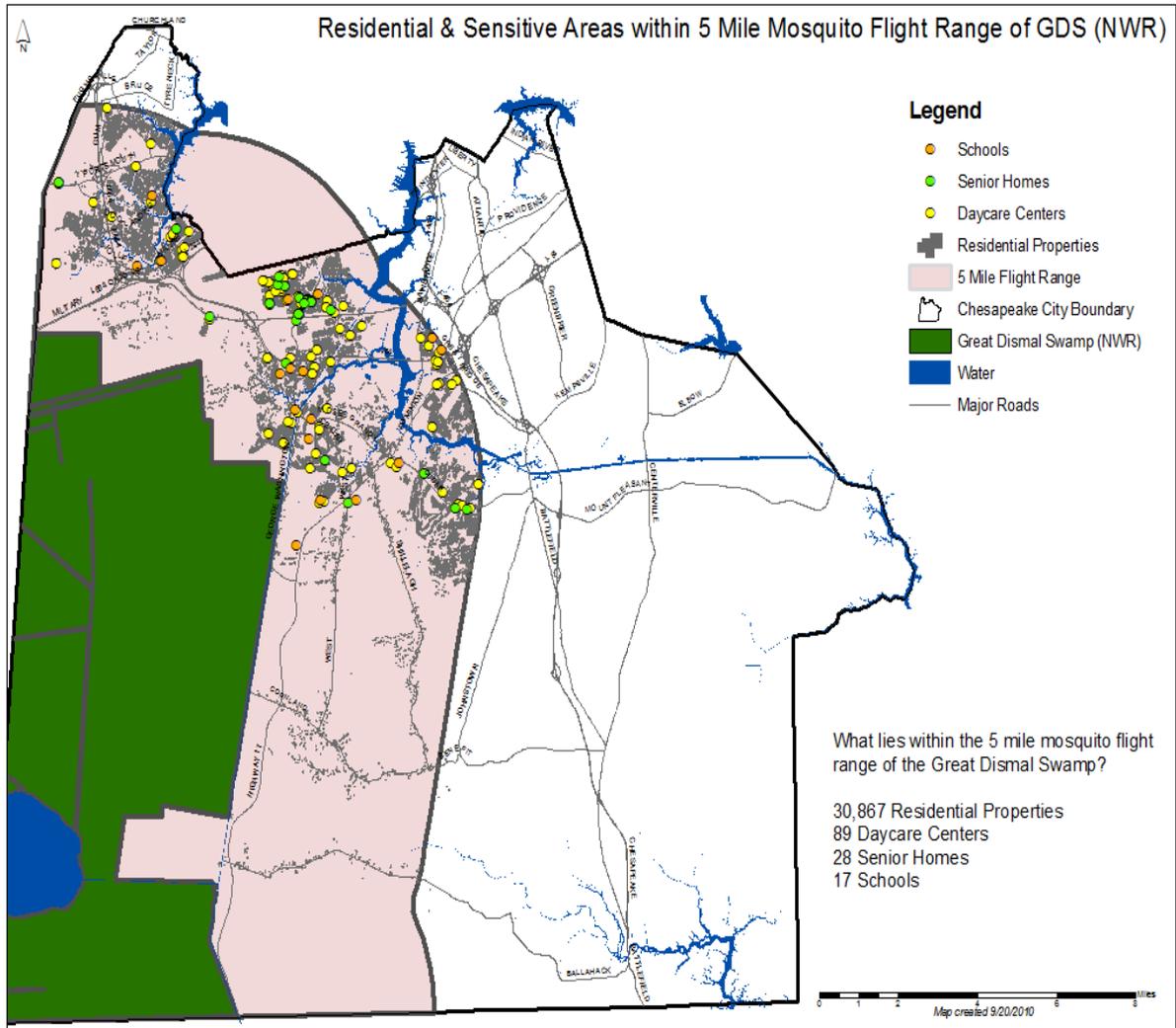
There are two main reasons why mosquito management is important: many mosquitoes can transmit pathogens to man and animals, and mosquitoes can be a major annoyance.

Mosquito-borne diseases are among the world's leading causes of illness and death today. It is estimated by the World Health Organization that each year more than 300 million clinical cases are attributable to mosquito-borne illnesses. Malaria, dengue, encephalitis, yellow fever, filariasis and heartworm are mosquito-borne diseases yielding devastating effects throughout the world. Most of these diseases have been endemic and/or caused epidemics in the United States in the past. Today, only the arboviral encephalitides occur annually and dengue occurs periodically in the United States. The major types of viral encephalitis in the U.S. include St. Louis, LaCrosse, Eastern Equine, Western Equine and West Nile virus. These viruses are normally infections of birds or small mammals. During these infections, the level of the virus may increase in these infected animals facilitating transmission to humans by mosquitoes. Human cases of encephalitis may be mild to very severe illnesses and a few cases can be fatal. Dengue is a viral disease transmitted from person to person by mosquitoes. Most infections will cause mild illness but some can be severe and even cause death. Dengue is endemic in the Caribbean, Central and South America. Recently, dengue has occurred with increasing frequency in Texas and Florida. Other pathogens transmitted by mosquitoes include a protozoan parasite, which causes Malaria and *Dirofilaria immitis*. *Dirofilaria immitis* is a parasitic roundworm and that causes dog heartworm.

Mosquito-borne diseases also affect both wild and domestic animals. Unvaccinated horses and emus are highly susceptible to Eastern Equine Encephalitis. Death rates may reach 90% once encephalitis is contracted. Horses, a few small mammals and some birds are very susceptible to West Nile virus. Dog heartworm kills many domestic dogs each year. It is both preventable and treatable, although treatment is expensive and not always successful. The best option for dog owners is prevention.

The presence of mosquitoes can cause reductions in labor efficiency and depreciation of real estate values. Mosquitoes can also interfere with outdoor activities and recreation.

The Chesapeake Mosquito Control Commission practices integrated mosquito management principals by employing the following techniques: public education, source reduction, surveillance, biological controls, larviciding and adulticiding. The proper philosophy of mosquito control is based on the fact that the greatest impact on mosquito populations will occur when they are concentrated, immobile and accessible. This emphasis focuses on habitat management and controlling the immature stages before the mosquitoes emerge as adults. This practice reduces the need for adulticiding applications.



Map of the City pinpointing sensitive areas such as schools, daycares and senior living, within a five-mile buffer zone of the Great Dismal Swamp.

Integrated Mosquito Management Techniques

Education



Extensive efforts are made to inform and educate the public about potential diseases related to mosquitoes and methods of mosquito control. Education is very important in controlling mosquito populations. A well-informed and alert resident can be as effective as a weekly property inspection by mosquito control personnel.

Public service announcements and ads are placed in news publications and on the radio. Some informative interviews with Commission personnel are conducted by news departments of local television stations.

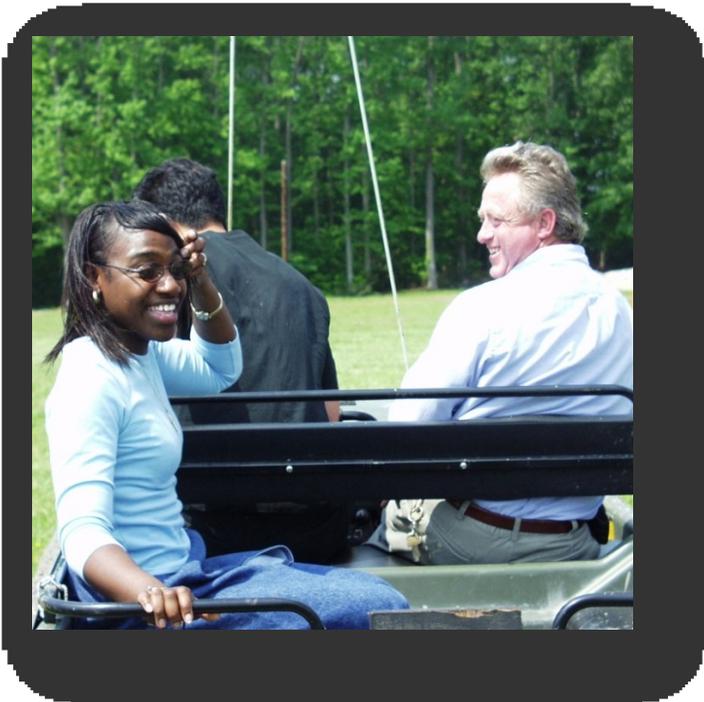
Lisa Wagenbrenner and Connie Gregg spearheaded our educational program this year. They made presentations at eighteen (18) elementary schools with third grade classes, conducting presentations to 2,435 students. Career days were conducted at four elementary schools involving 975 more students. Leroy Bohn, Bobby Whitaker and Zollie Russell helped with these Career Day presentations. The biology department also attended a science fair, three Public Safety Days and three civic groups, reaching another 536 members of the public. Joe Simmons also made presentations to three area civic leagues.

Upon invitation, presentations are made to schools, clubs, or civic groups and are routinely made at the state and regional conferences. Our Biologist helps with the annual state recertification classes each year. The Commission is listed on the City's public speakers list. Commission personnel are also very active in local, state, and regional training activities.

Lisa Wagenbrenner



Engaging students in mosquito control operations during one of the school's career days.



Leroy Bohn

Source Reduction

Effective mosquito control must include efforts to eliminate or reduce sources of mosquito breeding by eliminating, emptying or treating artificial containers that can become mosquito habitats. Mosquitoes reproduce in impounded and standing water; therefore, maintenance of drainage ditches is one of the Commission's primary concerns.

Due to funding restraints, a reduction in force by over 30% occurred in the last two years, causing ditching operations to be decreased. Larviciding and adulticiding were extended into the normal ditching season, which is the fall and winter of the year.

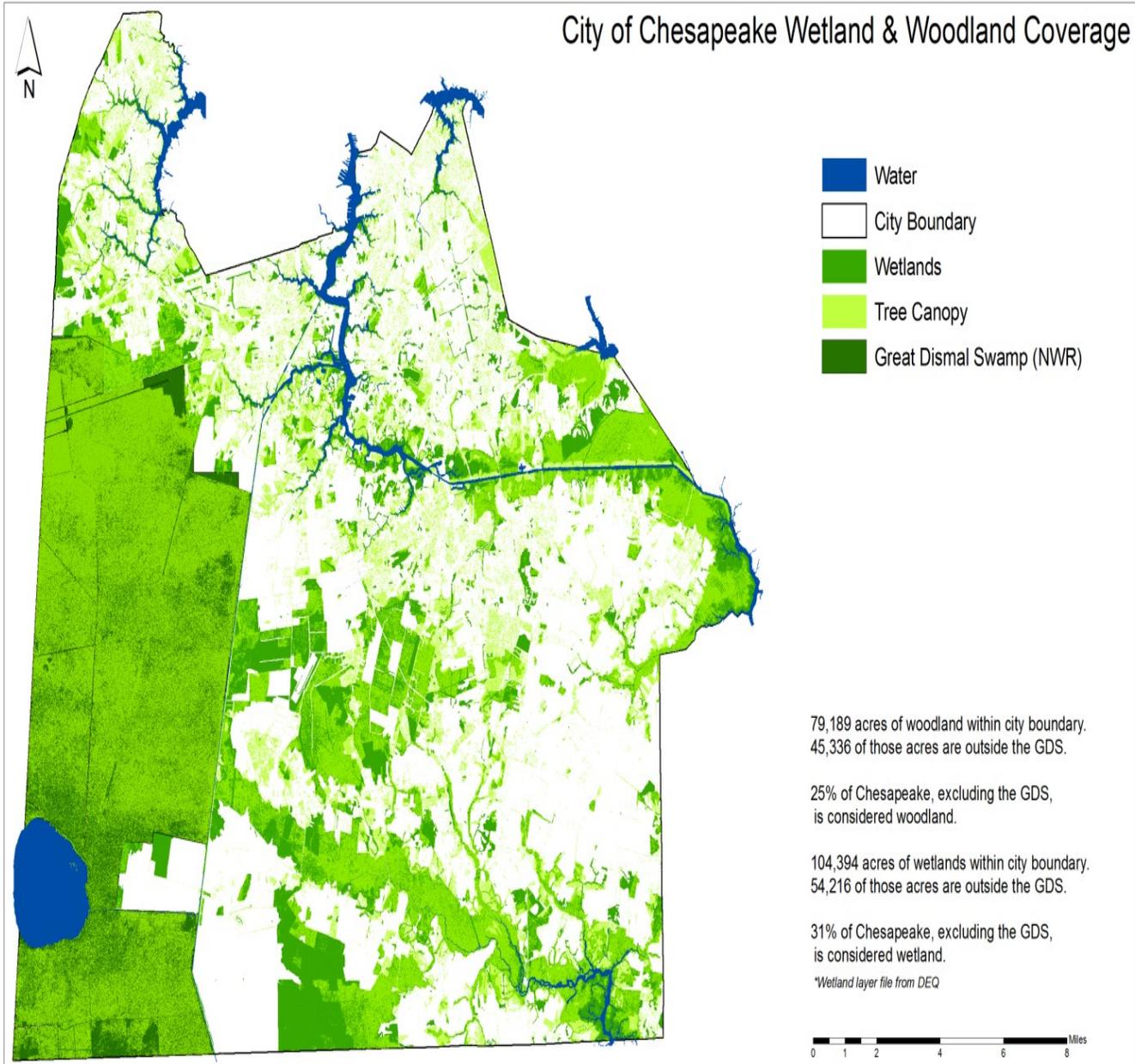
Source Reduction Activities Completed in 2011

	Deep Creek	Greenbrier	Southern Ches.	Citywide Totals
Bush (weed-eater)	8.2 Acres	21.6 Acres	38.2 Acres	68.0 Acres
Cleaning	17.7 Miles	18.6 Miles	19.5 Miles	55.8 Miles
Grading	120.0 Cft.	455.0 Cft.	2,195.0 Cft.	2,770.0 Cft.
Refuse Removed	9.0 Tons	39.0 Tons	48.0 Tons	96.0 Tons
Total Man Hours	4,197.0 Hrs.	3,724.0 Hrs.	4,485.0 Hrs.	12,406.0 Hrs.

Ditching Operations



City of Chesapeake Wetland & Woodland Coverage



The City of Chesapeake is unique because it has over 104,000 acres of wetlands within its boundary and 25% of the City, excluding the Great Dismal Swamp, is considered woodland.

Surveillance

Although surveillance is a primary concern of the Biology Department, it is conducted by a combined effort of the larviciding crews, field supervisors and the biology staff.

During the breeding season, surveillance programs are conducted so that control activities can be concentrated in those areas with the most serious problems. Surveillance is also done to determine if any virus activity is present in the mosquito population and in the sentinel chickens.

The surveillance techniques used are: larval dipping surveys, trapping with CO₂ baited traps, testing of mosquitoes, testing Sentinel chicken serum, and service requests from the public.

CDC, Gravid, Rotary and BG-Sentinel Traps

The Biology Department uses Centers for Disease Control (CDC) light traps, BG-Sentinel, Gravid and Rotary Traps to survey the adult mosquito populations in Chesapeake.

The carbon dioxide (CO₂) baited, CDC light trap is the primary method used to capture adult mosquitoes. The traps are set for over-night collection of mosquitoes, which are then separated and speciated into pools for arboviral testing. At least forty of these traps are set each week throughout Chesapeake. CDC Light Traps utilize a battery powered light source to attract mosquitoes and are baited with CO₂, as an additional attractant. The Commission uses pressurized tanks, which emit regulated low levels of CO₂.

The BG-Sentinel is designed to use a special lure that contains lactic acid, ammonia and fatty acids like the human skin. Carbon dioxide is also used as an attractant with the lure. Two BG – Sentinel Traps were first used in Mid-August of 2006. BG-Sentinel and CDC Light Traps have been set side by side over the last four years to determine the better trap. The BG-Sentinel Trap averaged collecting 485% more mosquitoes than the CDC Light Trap. The CDC Light Trap is more efficient in collecting the *Anopheles* and two of the *Culex* species. Due to this fact, BG and CDC traps were set in combination to determine which species are involved when there is a problem area. The BG Trap is more efficient than any other type trap for collecting adult mosquitoes. In fact, they are almost too efficient. If BG traps were used for all trapping, the workforce hours would have to be tripled just to identify and pool the samples.

The Gravid Trap is used to attract and capture gravid adult mosquitoes. The attractant used is an infusion of hay, grass clippings, chicken feces, yeast and water that has been allowed to ferment. The primary target species are *Culex* and *Aedes albopictus*.

Gravid Traps are set in areas that have the older sewage systems and have high numbers of the above species.

The Rotary Trap is used to survey the adult mosquitoes and their periods of activity. It allows biologists to trap eight, two-hour periods for a total of sixteen hours each night. Each two-hour period the species are separated and speciated to determine which species were active at the determined hours. This information can be used to indicate the most effective hours to adulticide. The Rotary Trap also uses a light source and CO₂ as attractants for the mosquitoes.

The presence of CO₂ widens the array of mosquitoes that are attracted and allows these traps to be effectively set to collect mosquitoes that are active during both daylight and evening hours.

The mosquitoes are collected alive in the CDC, BG-Sentinel and Gravid traps by containing them in a net instead of a killing jar. Collecting the mosquitoes alive is necessary for viral detection.

The biology personnel set 948 baited traps including six (6) that were set in the Great Dismal Swamp National Wildlife Refuge. A total of 187,443 mosquitoes were captured at 91 trap sites. The species known to be capable of transmitting Eastern Equine Encephalitis (EEE) and West Nile Virus (WNV) were in-house tested using Vec™ Tests to detect WNV and EEE.

The Commission is a member of the Tidewater Regional Arboviral Surveillance Team (TRAST), a cooperative effort of the regional mosquito control agencies. TRAST is also in agreement with the Virginia Department of General Services, Division of Consolidated Laboratory Services in Richmond for the arboviral testing from June until October.

The 2011 season was a below average year for mosquito populations, trapped mosquitoes, and tested pools. Three disease incidents were confirmed in 2011. There were three EEE positive Sentinel chickens and one unconfirmed WNV positive mosquito pool. Once again, there were no confirmed human or horse cases in Chesapeake.

Examples of the Traps used for Adult Mosquito Capture



**CO₂ Baited CDC
Trap**



**BG-Sentinel
Trap**

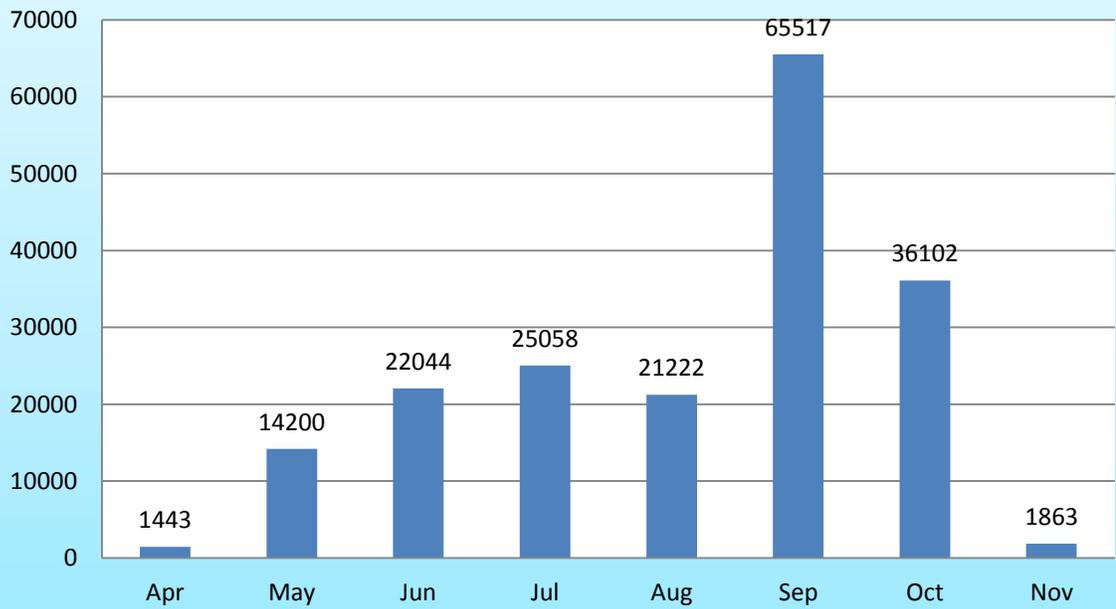
**Gravid
Trap**



Mosquitoes Trapped by District in Chesapeake in 2011 by District

	Deep Creek	Greenbrier	GDS Refuge	Southern	City-Wide Total	Percent of Species
Number of Traps	338	284	6	320	948	
% of Traps:	0	0	0	0	0	
Males	947	1,004	4	2,399	4,354	02.30%
<i>Ae. Albopictus</i>	336	1,873	0	131	2,340	01.23%
<i>Ae. Vexans</i>	17,670	10,268	86	12,968	40,992	21.87%
<i>An. Crucian</i>	1,639	7,195	5	10,221	19,060	10.17%
<i>An. Punctipennis</i>	126	71	1	624	882	0.47%
<i>An. uadrimaculatus</i>	99	300	2	6,184	6,585	3.51%
<i>Cq. perturbans</i>	1,624	1,257	7	1,530	4,418	2.36%
<i>Cs. inornata</i>	4	9	0	3	16	0.00%
<i>Cs. melanura</i>	10,027	2,126	326	11,471	23,950	12.78%
<i>Cx. erraticus</i>	1,211	857	58	5,053	7,179	3.83%
<i>Cx. pipiens</i>	96	165	0	45	306	0.16%
<i>Cx. restuans</i>	93	129	0	133	355	0.19%
<i>Cx. salinarius</i>	3,101	24,143	8	10,717	37,969	20.26%
<i>Cx. territans</i>	4	1	0	50	55	0.03%
<i>Oc atlanticus</i>	2,722	146	82	863	3,813	2.03%
<i>Oc canadensis</i>	5,772	2,832	0	2,860	11,464	6.12%
<i>Oc cantator</i>	11	0	0	15	26	0.01%
<i>Oc hendersoni</i>	11	3	0	1	15	0.01%
<i>Oc infirmatus</i>	524	192	6	505	1,227	0.66%
<i>Oc mitchellea</i>	1	0	0	0	1	0.00%
<i>Oc sollicitans</i>	159	76	0	9	244	0.13%
<i>Oc sticticus</i>	0	1	0	2	3	0.00%
<i>Oc. taeniorhynchus</i>	2,169	961	3	148	3,281	1.75%
<i>Oc. triseriatus</i>	71	19	0	54	144	0.08%
<i>Or signifera</i>	9	1	0	13	23	0.01%
<i>Ps. ciliate</i>	158	3	2	15	178	0.09%
<i>Ps. columbiae</i>	836	187	9	759	1,791	0.96%
<i>Ps. ferox</i>	9,154	1,057	17	4,114	14,342	7.65%
<i>Ps howardii</i>	94	40	9	255	398	0.21%
<i>Ur. Sapphirina</i>	27	17	0	1,198	1,242	0.66%
Mutilated	158	221	10	461	850	0.45%
Total females	57,748	53,929	621	69,941	182,239	97.22%
Total mosquitoes	58,853	66,265	635	72,801	187,443	100%
Total % of Mosquitoes	31%	27%	.4%	39%	100%	

Mosquitoes Trapped by Month 2011



CHESAPEAKE WEATHER 2011

January - March 1.77 Rain Averaged 1.43° Warmer

MONTH	Normal Rainfall	2011 Rainfall	+ or - Difference	Normal Average Temp.	2011 Season Temp.	+ or - Difference
April	3.38	1.21	2.17	57.40°	63.30°	5.90°
May	3.74	1.95	1.79	66.30°	69.90°	3.60°
June	3.77	4.63	0.86	74.50°	78.80°	4.30°
July	5.17	10.89	5.72	79.10°	82.30°	3.20°
August	4.79	10.79	5.27	77.40°	80.00°	2.10°
Sept.	4.06	7.26	2.50	72.10°	74.90°	2.60°
October	3.47	2.13	1.29	61.10°	62.20°	.10°
Totals:	28.38	38.86	10.48	69.70°	73.06°	3.36°

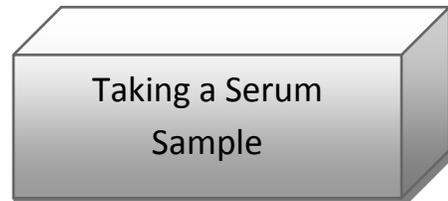
Sentinel Chickens



The purpose of the Sentinel Chicken Program is to get an early warning of an active presence of the West Nile virus and/or Eastern Equine Encephalitis virus.

Ten flocks of four chickens each were strategically placed throughout the City. Biology staff drew blood samples from each chicken every two weeks. This serum was tested for EEE and WNV by the Department of General Services, Division of Consolidated Lab Services in Richmond (DCLS). There were three conversions for EEE and none for WNV. Two of

the positives were at the same flock location. The use of chickens has proven to be very effective and true sentinels over the past twelve years.



Service Request Data for 2011

Type	Deep Creek	Greenbrier	Southern Ches.	Citywide
Mosquitoes	872	516	728	2,116
Drainage	39	26	30	95
Property Releases	5	1	15	21
Special Fogging	153	93	128	374
Standing Water	38	32	19	89
Other	9	10	22	41
Total:	1,116	678	942	*2,736

** In 2011, there was an increase in service requests due to Tropical Storm Irene.*

Larviciding

Larviciding is the act of controlling mosquito larvae and pupae in the water by the application of *Bacillus thuringiensis israelensis (Bti)*, fish or some chemical that will kill them. Larviciding is one of the most important activities of the Commission staff during the breeding season.

Inspections performed throughout the City identify those areas where breeding occurs and when found an appropriate larvicide technique is employed according to the area and/or stage of breeding found.

Twelve thousand, six hundred sixty-nine (12,669) acres were treated by aerial larvicide applications during April 2011. Three thousand, five hundred seventy-eight thousand (3,578) acres were treated by hand, ATVs, and roadside vehicles.

2011 Larviciding Totals

	Deep Creek	Greenbrier	Southern Ches.	Citywide	Aerial	Totals
ACRES LARVICIDED	1,115	1,062	1,402	3,578	12,669	16,247
PERSONNEL HOURS	8,287	7,011	8,245	23,544	399	23,943

Larviciding Application Techniques



Backpack Sprayer



All-Terrain Vehicle (ATV)



Roadside Jeep

Adulticiding

During mosquito control season, it is impossible to find and larvicide all breeding sites. In addition, mosquitoes migrate into control areas from adjacent non-controlled areas. The Commission performs adulticiding as needed.

Adulticiding is the act of operating a machine to uniformly disperse small amounts of pesticide over a target area to control adult mosquitoes. This is achieved by using various forms of ultra-low-volume (ULV) spraying equipment.

The City, excluding the Great Dismal Swamp Wildlife Refuge, is divided into approximately thirty (30) truck routes and fifteen (15) ATV routes. Additional adulticiding, special fog requests and individual yards are treated by ULV backpack or hand-held sprayers as needed or requested.

In 2011 there was below normal rainfall until Hurricane Irene hit Hampton Roads. The heavy rainfall from this hurricane and the following three weeks produced massive mosquito populations, and increased the need for larviciding and Adulticiding. Including the aerial adulticide application on September 19, 2011, the number of acres treated was more than double the preceding season.

2011 Adulticiding Totals

	Deep Creek	Greenbrier	Southern	Aerial	Citywide
ACRES ADULTICIDING	99,026	242,929	347,640	162,975	852,571
PERSONNEL HOURS	709	1,176	1,499	80	3,464

Adulticiding Application Techniques



Backpack Application



Hand Held Sprayer Application



Thermo Fogger Application



Application by Truck



Application by Aircraft



Application by ATV

BIOLOGICAL REVIEW

The Biology Department started the year by completing the 2010 Annual Report, refurbishing and/or replacing equipment and organizing for the season.

Larval surveys were conducted during February and March to determine when to do an aerial larvicide application. From April 1 through April 10, the aerial contractor applied liquid **Bti** and liquid Altosid larvicides to 12,669 acres. Excellent results were achieved.



An average of setting thirty-five traps was achieved each week during the season, including CDC, Gravid, and BG-Sentinel traps in the three operational districts and the Great Dismal Swamp National Wildlife Refuge. The CDC and BG-Sentinel traps are used the most because they are the most effective. These two traps compliment each other because both are more effective in attracting and collecting different species. The Gravid traps are used to attract and collect gravid females and, optimistically, *Culex pippins* mosquitoes, which are the best test species for West Nile Virus.

The number of mosquitoes trapped and identified during the season was 146,716. The number of pools tested in the in-house lab using the VEC™ test kits was 1,120 (67,020 mosquitoes) for Eastern Equine Encephalitis and West Nile Virus. There was one pool of *Cs. Melanura* to test positive for WNV, but was not confirmed by PCR.

Twenty blood serum samples were drawn each week from the Sentinel chickens and sent to DCLS in Richmond. Only three of the ten chicken locations were positive for EEE.

The weather for the season averaged about 3.36 degrees warmer and 10.48 more inches of rainfall than normal fell for April through October.

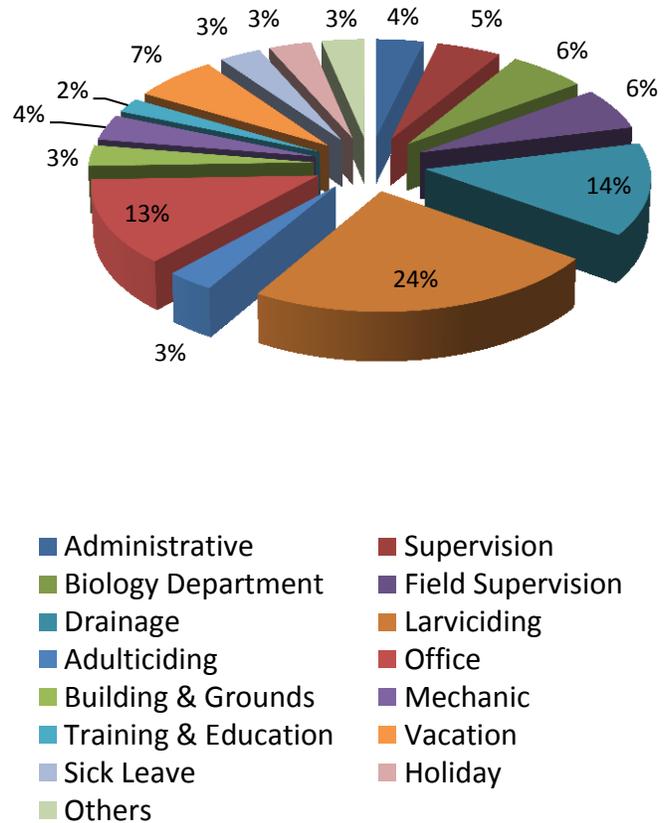
Chesapeake had a low year for mosquito populations until Hurricane Irene and the following three weeks of rainfall flooded many thousands of eggs. The mosquito populations exploded and required larviciding all day and adulticiding at night. An aerial adulticide application was conducted on September 19, 2011 to get some relief and gain control. There were only three positive chickens and one positive mosquito pool during the season. Another year achieved with **no horses and no human cases**.



ADMINISTRATIVE REVIEW

Personnel Category	Number of Hours
Administrative	3,438
Supervision	4,631
Biology Department	5,619
Field Supervision	5,719
Drainage	12,559
Larviciding	21,779
Adulticiding	2,917
Office	11,673
Building and Grounds	2,850
Mechanic	3,481
Training and Education	1,950
Vacation	6,083
Sick Leave	2,998
Holiday	3,036
Others	3,048
Total Hours:	91,781

Percentage of Hours Spent in Each Personnel Category



FINANCIAL OVERVIEW

CITY OF CHESAPEAKE, VIRGINIA

2011 COMPREHENSIVE ANNUAL FINANCIAL REPORT *Schedule S-8*

Statement of Revenues, Expenditures, and Changes in Fund Balance

Chesapeake Mosquito Control Commission

Year Ended June 30, 2011

REVENUES

Property taxes*	\$ 3,853,230
Investment income	29,078
Other	37,140
Total revenues	3,919,448

EXPENDITURES

Other salaries and wages	1,850,587
Other fringe benefits	744,959
Other repairs and supplies	623,815
Other post-employment benefits	13,219
Insurance premiums	253,218
Capital outlay	112,158
Other	334,584
Total expenditures	3,932,540

Deficiency of revenues under expenditures	(13,092)
Fund balance – beginning	5,447,086
Fund balance – ending	5,433,994

Reconciliation to Change in Net Assets:

Governmental funds report capital outlay as expenditures. However, when reporting net assets, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense.

Deficiency of revenues under expenditures	\$ (13,092)
Depreciation expense	(247,655)
Loss on disposal	(19,091)
Capital outlay expenditures	<u>112,158</u>
Change in Net Assets	<u>\$ (167,680)</u>

**The City finances the operations of the Commission through incremental property taxes of \$.01 per \$100 of assessed value for real estate properties and \$.08 per \$100 of assessed value for personal property.*