

Collier Mosquito Control District 2015 Annual Report



Collier Mosquito Control District

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Interim Executive Director: Thomas R. Wilmot, Ph.D.

Board of Commissioners:

Jacquelyn D. Fresenius, Chair John F. Johnson, Vice-Chair & Secretary David H. Farmer, Treasurer Robert D. Geroy Michael P. Williams

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Message from the Executive Director

Collier Mosquito Control District (CMCD) faced a serious challenge in June of 2015 with the resignation of Executive Director Jim Stark. We were further tested by the retirement of Research Director Jeff Stivers and the resignation of Biologist Marin Brouillard. When Jim Stark left, I was tasked with carrying the District through until a permanent Director could be brought on board. Thanks to the great support and dedication of our outstanding employees, I believe that we have a program that continues the excellence of the past with the ability to improve each day, ready for incoming Executive Director Patrick Linn.

Mr. Stark's influence continues to benefit the residents of our District as we carried forward with his vision of integrated mosquito management and continued to develop projects instituted under his direction. An enhanced website and use of social media expanded our public information outreach. Much information that was maintained on paper or in individuals' memory in the past is now entered, stored and processed in our web-based data management system. The new timecard system allows us to better track employee activity. Work continues on updates to the CMCD employee handbook and on plans for installation of a water line for the hangar fire suppression system. We continued the evaluation of new larvicides and we reintroduced ground Ultra Low Volume (ULV) adulticide missions into our control program.

Protecting the public from mosquito transmitted diseases is our organization's primary responsibility. Thankfully, there were no reports of locally-transmitted disease in the District this year, although introduced cases of malaria, Dengue and Chikungunya were identified. Targeted surveillance and mosquito control efforts were instituted to prevent any possible spread of these disease agents.

Thank you for your interest in the CMCD. If you have any questions regarding the information presented in this annual report please do not hesitate to contact us.

Respectfully,

Tom R. Wilmot, Ph.D. Interim Executive Director

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EXIT IN THE STATE OF THE STATE

Interim Executive Director Tom Wilmot and Board Chairman Jacquelyn Fresenius welcome our new Executive Director, Patrick Linn

Message from the Chair of the Board

Greetings from the Chair of the Board of Collier Mosquito Control District. This has once again been an interesting and challenging year for the Board as we set out to hire a new Executive Director. I am happy to report that we have hired Patrick Linn, MS, currently a pilot with CMCD, to take the helm of the District as of January 1, 2016. Patrick brings with him a wealth of experience, and we look forward to working with him as he brings hands-on knowledge, of the District, to the District. We have been very fortunate to have Tom Wilmot, Ph.D., on board through this transition and as we move into 2016, ever incorporating technological advances into our surveillance and treatment modalities, increasing our ability to control the mosquito population in our District and remain a leader in mosquito control. Stay safe.



Jacquelyn Fresenius Chair, Board of Commissioners

Jacquelyn D. Fresenius Chair Board of Commissioners

Mission Statement

The mission of the Collier Mosquito Control District is to serve the community by suppressing both pestiferous and disease carrying mosquito populations to a tolerable level in the safest, most economical manner, utilizing a variety of methods (Integrated Mosquito Management) and the latest research findings in such a way as to minimize potential side effects on people, wildlife and the environment.



Board of Commissioners: Robert Geroy, Michael Williams, Jacquelyn Fresenius, David Farmer & John Johnson

Operations

Surveillance

The Collier Mosquito Control District continued the evolution of our adult surveillance program during the 2015 mosquito control season. New Jersey light traps that were no

longer providing useful information (after housing developments replaced mosquito habitats) were removed and greater reliance was placed on mobile Centers for Disease Control (CDC) Light traps. Approximately 17 CDC traps were used over 22 locations. While continuing the morning landing collection surveillance in areas subject to invasion by saltwater mosquitoes, inspectors also performed night landing rate counts at 38 sites throughout the District to provide more information on fresh water mosquito species activity. Sweep net collections were used to provide for timely identification of mosquito species found in areas of concern.



Inspector Nate Phillips conducts a sweep net collection



The 2015 season got off to a quick start with a number of service request calls in January. Investigation revealed high numbers of *Mansonia* species mosquitoes in the Immokalee and Ave Maria areas, which continued to plague us for the entire season. With a distinct but relatively short period of greatest flight right at sunset, night collections and sweep nets were vital additions to the light traps for monitoring *Mansonia* species.



Gravid traps were used this year to expand the diversity of *Culex* species mosquitoes collected for West Nile virus surveillance. Utilization of Biogents' BG-Sentinel traps was somewhat limited compared to last year, but these traps were used to search for *Aedes albopictus* and *Aedes aegypti* in the area around introduced cases of Dengue and Chikungunya disease. No significant populations of container-inhabiting *Aedes* were detected with this surveillance.

Larviciding

Immature mosquitoes develop in water, so tidal surge and rainfall have a significant impact on mosquito production. In Collier County, roughly 80% of the 52" average rainfall occurs during the months of May through October, which can lead to significant mosquito production. The 2015 season started out relatively dry, but by September we were above normal precipitation levels.



Chief Inspector Danny Weeks treating for mosquito larvae after a summer rain

The District conducted larval control over 1,382 acres during FY 2014~2015. Aerial missions

Acres Treated - Larvicide

1,420

1,500

1,000

555

445

500

2011

2012

2013

2014

2015

utilizing B.t.i., Meta-larv, and Natular targeted 718 acres, primarily for salt marsh mosquito larvae in the southern part of the District. Field inspectors treated 455 acres with B.t.i. and 209 acres with Altosid. Two research materials, Fourstar and VectoMax were applied to four-acre and six-acre sites respectively with very effective results (100% control of mosquito larvae over several weeks). It is interesting to note that while construction activities can reduce habitat and

adult mosquito problems, new habitat can be produced as well. Inspectors found and treated several new larval sites throughout the District this season.

Unusually high tides in September and October flooded extensive areas of marsh but few larvae were found within the District so no larvicide missions were required at that time.

Adult Control

The 2014-2015 year got off to a quick start with 18 aerial adulticide missions covering 353,695 acres in October, 2014. Activity quickly slowed thereafter due to cessation of the rains. The 2015 calendar year mosquito season began early due to *Mansonia* activity, but given the relative lack of salt marsh mosquitoes, treatment was low to mid-tempo until

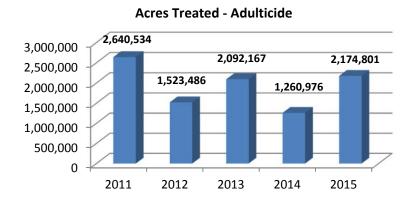


later in September when freshwater species began to peak.



A total of 54 fixed-wing missions from March through September treated 1,727,880 acres. There were a total of 17 helicopter missions from June through September covering 33,903 acres. The pickup-mounted adulticide unit (applying Zenivex) was reincorporated into our treatment program this year while nine truck missions treated 5,207 acres

Looking back five years, this season was similar to fiscal year 2012-2013 with a total of 2,174,801 acres treated for adult mosquitoes. The 2010-2011 fiscal year was the busiest season we have had recently.



Operations Database

The Collier Mosquito Control District has moved to use of the GeoPro database system for

recording, processing and reporting much of our field data. The GeoPro system is web-based, map-oriented and can be operated from a browser, on a computer, or from an application on a tablet. Android tablets were purchased for field Inspectors. Inspectors record rain gauge and landing rate count data in the field which is immediately available to anyone using GeoPro. Supervisory and laboratory personnel record treatment

information and mosquito identification on computers in



the office. Citizen requests for service are

recorded and sent out to the appropriate Inspector for followup. Boundaries were created for different zones within the District and data can be recorded and processed by zone for more specific analysis. We are working on adding larval production sites to the database and hope to soon record information on larvicide and adulticide applications which will be of great value for inventory and Florida Department of Agriculture and Consumer Services (DACS) reporting.

Mosquito surveillance data is also being recorded in the GeoPro system. Through September of this year, over 1,300,000 individual mosquitoes from approximately 22 species were identified. With time, we may have enough data for such uses as tracking long-term trends in mosquito numbers across the District, comparing treatment effectiveness by mosquito species or correlating the mosquito compositions of different collection protocols.





Inspector Nate Phillips enters data into his GeoPro tablet

As with any new system, there were software, hardware and training issues to deal with but the support from Adapco has been quite helpful and problems are much less frequent each month. Special thanks go out to Marin Brouillard for her tireless effort in helping us get started with this system. Richard Ryan has taken over from Marin as lead troubleshooter and liaison with Adapco.

Flight Operations

Aviation Assistant Jon Morris was to have been integrated into fixed wing spray operations last year, but circumstances at that time meant that he did very little operational flying. Jon was more fully involved with our fixed wing operations this year and, with the extra time dedicated to flying, has become a valuable member of the air operations team.





Chuck Roderick – Before and after 33 years with the Collier Mosquito Control District

Charles Roderick, Chuck, who has been a part-time helicopter pilot for the District for the last two seasons, retired in November. Chuck has been a pilot for the District for thirty-three years. He began flying as an Army helicopter pilot ('66~'70), and is a combat veteran having flown Huevs (UH-1Bs) in Vietnam for a tour (age 20 in Vietnam photo on the left), a period which encompassed the Tet Offensive. Post tour, he became an instructor pilot in the Army. Chuck, with a brief three year hiatus, has been flying ever since. He flew for Provincetown-Boston Airlines, was a pilot for the District for nine years, flew for Lee County MCD for a period, then Collier County EMS. He returned to CMCD in 1990, retiring as Chief Pilot in late 2013. Aircraft flown include the Beech 18, DC-3, Shorts SC-7, H 269, MD 500D, and UH-1B.

The District commends Chuck for his long and valuable service. We wish Chuck and wife Susan all the best in retirement. Chuck not being a golfer, Susan will no-doubt have her hands full. As actively involved grandparents, however, life will seldom be dull or quiet!

The District relies on tower wind information for Skyvan ultra low volume (ULV) missions; we have two tower-mounted wind sensors (300' above ground level), one in Immokalee and one off County Barn Road. Ideally, we needed another two discrete inputs, but finding another two appropriate towers proved problematic. We are now reconsidering the use of on-board meteorological sensors which would obviate the need for tower-based reporting.

We are replacing our aerial larviciding rig with a system that will permit application of different granular formulations at more accurate dosage rates, and facilitate smoother transition from one control material to another. Utilization of the new granule dispensing system required migration to a more capable spray platform (AG-NAV) which is widely used in aerial application. AG-NAV also can properly use on-board metrological inputs and may be used to replace Wingman on the Skyvans.

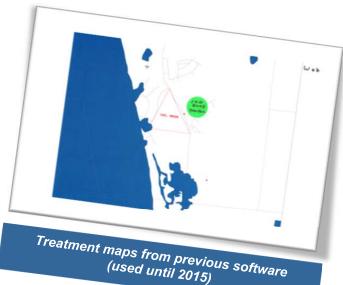




Gene Sutton offers Mechanic Peter Brake and Chief Pilot Chris Laidlaw-Bell guidance on implementation of the Ag-Nav system

This system is capable of producing detailed photos to guide pilots during application and to record treatment activity which will be of great value to our Operations Department.





Aircraft Maintenance

Maintenance

Annual Inspections are completed as necessary for all aircraft. Skyvan annual inspection includes manufacturers' service bulletin compliance and required Airworthiness Directive compliance. Aircraft spray systems are concurrently inspected and repaired as needed. Helicopter airframe and engine inspections were also completed. All associated manufacturers mandatory service bulletins and Airworthiness Directives have been complied with. Ground flow calibration and droplet characterization were completed on all aircraft prior to operation.



Peter Brake installs an improved turbine engine heat shield blanket on an MD 500 Helicopter

Routine maintenance & parts purchased included: propeller, tail rotor bearings, drive shaft, tail rotor pitch assembly, tail rotor blades and seatbelts. New helmets were purchased and night vision goggles were calibrated.

Helicopter N5288X was sent last year to Rotortech Services Inc. of West Palm Beach, Florida for corrosion repair. When the necessary repairs were completed, we asked that an alignment check be conducted. Proper alignment was verified and the aircraft has been returned to our facility for reassembly.

Aircraft Enhancement:



Repositioned Wingman spray guidance display screen

The Wingman spray guidance display was relocated in the Skyvan aircraft. There is one flat screen display in each aircraft. Previously they had been positioned on the left side of the main instrument panel where they could not clearly/easily be seen by the right seat pilot. With the incorporation of Jon Morris into fixed wing operations, relocation of the display was necessary, since use of the display is helpful if spray mission tracks are to be flown from the right seat.

An option to purchase and incorporate an extra repeater display was considered due to problems with relocation of the single display. Those problems were resolved and a single Wingman flat screen display is

now mounted where the display can be easily seen and manipulated by both pilots.

All three Skyvans had the spray system modification incorporating a gated spray system master switch. Without activation of this switch, the spray system will not operate.



New Spray System Master Switch



Aircraft Maintenance





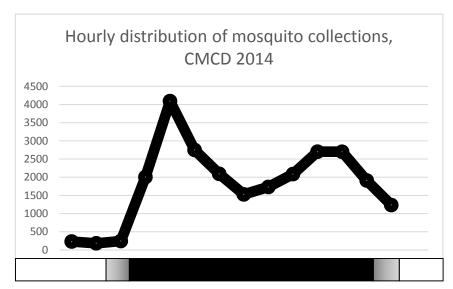
Research

Collection Bottle Rotator

A study was initiated in 2014 to determine the major activity time of mosquitoes at both the beginning and the end of the mosquito season. Four John W. Hock collection bottle rotators, each with a CMCD modified John W. Hock model 512 trap, were used during the study. The rotators allow the operator to establish up to eight collection periods by rotating collection bottles under the trap.

For this study, collection sites were established at the Immokalee airport and the staff housing area at Collier Seminole State Park. Two rotator units were used at each collection site, allowing 14 hour-long collection periods. Collections were begun at 5:00 PM and terminated at 7:00 AM. Samples were collected at each site for two weeks at the beginning of the season (June-July) and one week as the season began to subside (October).

The mosquitoes collected during this study were returned to the laboratory on a daily basis where they were frozen for identification during the off season. Hourly distributions for total collections (all mosquitoes) are shown in the figure below. The distribution is very similar to the expected "typical" distribution with a peak of activity after sunset, collections through the evening and a second, smaller peak before sunrise. Note that the day-night cycle is roughly indicated by the bars on the graph below.



Flight time will vary for different activities (e.g. feeding, oviposition, resting site selection) and species (the graphs would be completely different if we were collecting *Aedes aegypti*) so different species were investigated individually.

Collections of *Aedes taeniorhynchus* were more evenly distributed than most other species with noticeable numbers taken through the last hour sampled. *Mansonia* and *Anopheles* species demonstrated definite peaks after sunset. *Culex*

nigripaplus activity was fairly well spread across the evening with some activity before sunset but with a relatively significant drop-off at sunrise. Collections of *Psorophora columbiae* were limited almost exclusively to night.

Data from the October collections demonstrated that mosquito activity was more tuned to the light/dark cycle than to the clock, with mosquitoes collected earlier in the evening and later into the morning. The October collections of *Mansonia* species evidenced an even more pronounced morning peak than that indicated by our sweep net and landing collections.

It is important to remember that factors other than daylight (e.g. temperature, humidity, wind and rain) can affect mosquito flight activity and these and other factors affect treatment effectiveness. All of these factors must be considered in developing a treatment plan, but consideration of species-specific flight activity can be a useful component of the planning process. Taken together, these results suggest that mid-evening treatment should be effective for most mosquito species targeted but, when possible, early evening may be better for *Mansonia* species. *Aedes taeniorhynchus* seems the best possible target if treatment is to be extended into morning hours.



Field Trial of Ground ULV



Dr. Stivers directs pre-treatment calibration of the adulticide machine

Citizen service requests suggested a possible mosquito concern (most noticeable in the time around dusk) in the Immokalee area the week of January 12, 2015. Surveillance indicated nuisance-level populations of *Mansonia* and *Anopheles* species mosquitoes, with the *Mansonia* activity particularly noted right at sunset. A ground ULV treatment was conducted in this area to address the problem.

Pre-treatment surveillance was conducted on the evening of January 20. Zenivex E20 was applied at mid-label rate of 0.00350 pounds A.I. per acre. Caged mosquitoes and droplet sampling rods were used to evaluate this treatment. Two cages with approximately 15 mosquitoes each (*Mansonia* and *Anopheles* from the pre-treatment CDC collections) and two spinning rods were set downwind of the expected treatment path at four stations along the planned treatment route. Good mortality was observed in one test site on the first treatment evening but few of the exposed mosquitoes died in the other sites and overall mortality was significantly less than 50%. Field technicians conducting the treatment noted irregular flow from the ULV machine which could not be corrected in spite of repeated efforts to prime the pump and tighten connections in the field and less than adequate material was being applied.



Operations staff clean and calibrate adulticiding equipment

Inspection of the ULV machine on January 22 revealed a clogged drop tube among other problems. This tube was cleaned, fittings were adjusted as necessary and the machine was recalibrated. A second treatment was conducted on the evening of January 22. While output seemed better than on the previous night, technicians again had difficulty maintaining a consistent flow of material. Cagedmosquitoes from the January 22 treatment suffered 100% mortality within one hour of treatment. Citizen reports also indicated slighter greater effect with this second treatment than on the first evening.

Overall Treatment effectiveness was limited, however, as nuisance level mosquito populations were still seen in post-treatment landing collections.

In conclusion, Zenivex is lethal when delivered to adult mosquitoes and it is possible that there may be use for ground ULV technology in specific areas and situations less amenable for aerial treatment. More work will be required to develop an effective program for delivering this material. Such work has been started and will continue into 2016.



Disease Surveillance



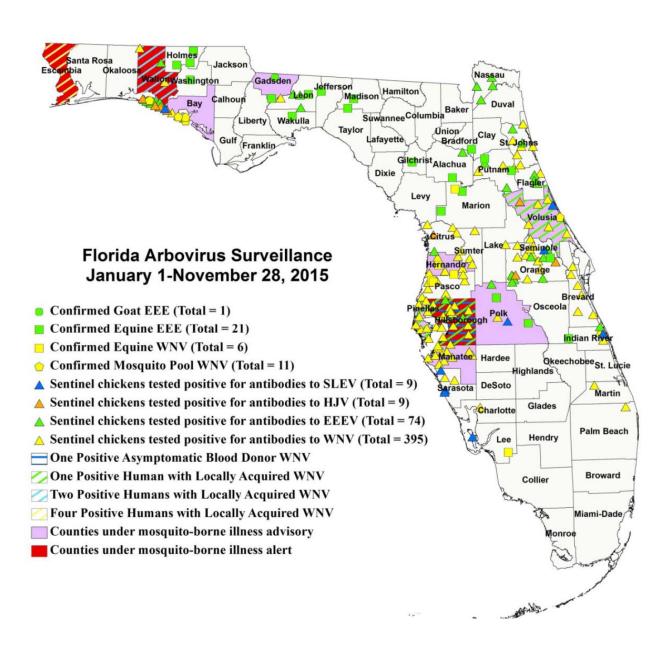
Protecting public health and reducing the risk of mosquito transmitted diseases is CMCD's primary responsibility. In 2015 we worked closely with mosquito control professionals and others around the State to share information and review operational plans designed to reduce disease risk. This spring, staff attended a Dengue and Chikungunya class at the FMCA Dodd Short Courses. To better prepare for the wide variety of mosquito-borne disease agents that have or possibly could invade Florida, the CMCD West Nile Virus Response Plan was replaced

by the new Mosquito-Borne Disease Activity Response Plan Policy. In-house testing identified three suspected-positive West Nile Virus (WNV) mosquito samples. These mosquitoes were sent on to Lee County Mosquito Control District for Polymerase Chain Reaction (PCR) confirmation and all were negative.

No locally-acquired disease was noted in Collier County this year, but we were notified of introduced cases of malaria, Dengue and Chikungunya. We conducted targeted mosquito surveillance in the area around these case reports. In each instance we found very small numbers of vector mosquitoes and no specific treatments were required.



BG-Sentinel trap is used to survey for Aedes aegypti Statewide, there was no indication of local transmission of Dengue, Chikungunya or malaria and only sporadic, low-level transmission of St. Louis Encephalitis (SLE) virus to sentinel chickens. We did see a significant number of equine Eastern Equine Encephalitis (EEE) cases and both human and equine West Nile Virus (WNV). EEE activity was widespread through central and northern Florida. WNV was seen primarily in the region from Tampa to St. Augustine and in the western panhandle. A 2015 Florida Arbovirus Surveillance map is included below for your reference.



Community Relations

The Collier Mosquito Control District (CMCD) is committed to cultivating the public's trust. Through various public information venues, we provide a clear message of the importance of an integrated mosquito management (IMM) program which protects the public's health and wellbeing.

The CMCD public information programs include all employees. Whether it's phone calls, email replies, website service requests, one-on-one conversations with District residents, social media interactions or participating in a parade, our team of experts provide factual, current information and solutions.



Mosquito control staff and supporters prepare for the MLK parade



School programs are designed to teach subjects such as mosquito biology, source reduction, mosquito-transmitted diseases, prevention and the concept of substance concentration which meet the Florida State teaching standards.

Community events are great opportunities to speak with large numbers of residents. This year

CMCD participated at the Rookery Bay National Estuary Day, Home Depot Master Gardeners Day, Lorenzo Walker Pancake Breakfast Fly-In, Naples Airport Authority Open House and National Mosquito Control Awareness Week.



Jim Stark and Adrian Salinas discuss operation with visitors to the NAA open house



CMCD staff help with mosquito source reduction in Immokalee

To recognize Mosquito Control Awareness Week 2015, a scrap tire collection was conducted in the community of Immokalee, Florida. Six employees scoured the community, knocking on doors and visiting yard sales in an effort to speak with as many people as possible about source reduction of container-inhabiting mosquitoes and to raise the awareness of the potential for mosquito borne disease transmission. We spoke with many residents, handed out fliers and collected two tons of tires. Information about the event was posted on the CMCD website blog, Facebook and Twitter.

CMCD facility tours are an opportunity to educate the public about mosquito control operations. Guests tour the lab to learn about mosquito biology and field data collecting, and

visit the hanger to view aircraft. This year a display of bromeliads, containers, a bird bath, and surveillance equipment have been added as part of the visitor's facility tour. This exhibit will show how mosquito habitat source reduction can minimize the threat of disease transmission.

It is important to keep not only District residents but also legislators and regulators informed of mosquito control activities and the challenges we face in protecting public health and the environment. Dr. Jeff Stivers has been a leader in the Florida Mosquito Control Association's legislative advocacy. Jeff and Jim Stark attended the FMCA Tallahassee conference and Jim participated in the American Mosquito Control Association Washington D.C.



Inspectors Ryan, Klein and Phillips demonstrate surveillance equipment during a school group tour

American Mosquito Control Association Washington, D.C. conference.

Collier Mosquito Control District recognizes the need to continually update means of electronic communication with District residents . . .



The new website and social media applications offer interactive features. Website visitors can ask for service requests by entering their property information with a brief explanation of their concerns. Inspectors can then conduct home visits and inspections of the surrounding areas. Residents may request pretreatment notification by automated email, text, or phone voice mail. The map feature recognizes when a resident lives within the boundaries of an area scheduled for treatment and notifies the resident of that treatment.

Facebook, Twitter and the website blog communicate with followers by posting current and timely subject matter relevant to CMCD daily events and news articles from the IMM industry. Followers of these sites are able to reply directly to specific postings. We are also

developing a new smart phone application to allow residents to access website features such as maps, treatment notifications and service requests through their phones.





Personnel

Jon Morris and Stacy Welch were recognized for 10 and 25 years' service respectively at the January Tenure Awards luncheon.



Jon Morris – 10 years



Stacy Welch - 25 years

Daniel Anez was hired as Inspector on December 1 of 2014. Daniel lives in Immokalee and his knowledge of

the area is a valuable asset as he serves the Immokalee and Ave Maria zone.

David Pfaff
completed his tenure
on the CMCD Board
of Commissioners
and Michael
Williams was elected
to fill his seat.
Commissioner
Williams was sworn



Daniel Anez – Inspector for Immokalee & Ave Maria

Dr. Thomas Wilmot moved from Michigan to serve the District as Consulting Entomologist beginning in January, 2015. In May, Executive Director Jim Stark announced his intention to resign and Dr. Wilmot was appointed Interim Executive Director effective June 26, 2015. An extensive search was conducted and Patrick

in and officially began service in January of 2015

Linn was selected to lead the Collier Mosquito Control District beginning January 1, 2016.

Dr. Jeffrey Stivers retired from the District after 20 years on duty. Dr. Stivers has relocated to South Carolina to protect us from mosquitoes migrating south. Marin Brouillard resigned in October to devote more time to her family. We are grateful for Jeff and Marin's many years of service to the District.

Dennis Jones and John Appezzato entered the Deferred Retirement Option Program (DROP) through the Florida Retirement System, setting the path toward retirement within the next five years.



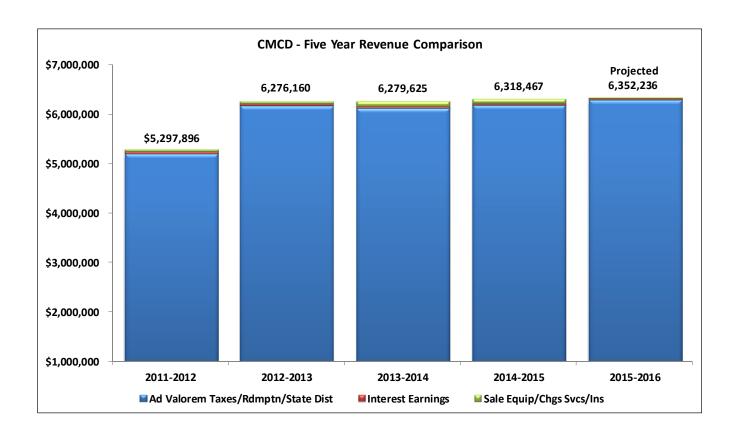
Dr. Jeffrey Stivers Retired after 20 yrs. of service (Circa 2003 & 2015)

Administration

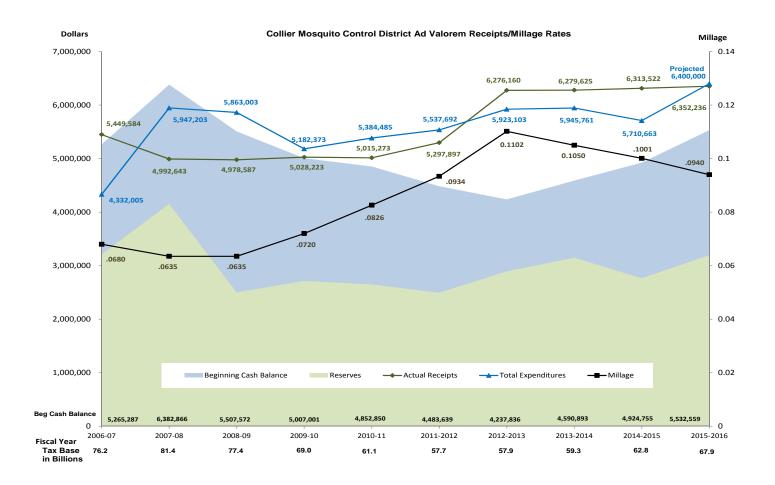
The District concluded fiscal year (FY) 2014-2015 with an ending cash balance of \$5,532,559. The budget is balanced and the District continues to maintain satisfactory reserves, as well as available cash into FY 2015-2016. The primary financial objective of the District is to maintain low property taxes while efficiently utilizing funds to support its core operations.

Revenue for FY 2014-2015 was generated by a millage rate of .1001 (\$10.01 per thousand of taxable property value), which was at the rolled-back rate. Total proceeds for the FY were \$6,243,568, which included \$91,702 from aerial treatment outside of the District boundaries. Fiscal year expenditures were \$5,710,663, a decrease of four percent from the prior fiscal year.

The five-year Revenue Comparison Chart shows the prior four years of revenue, and projected income for FY 2015-2016. Due to the fact that revenue from treatment outside of the District boundaries cannot be predetermined, \$25,000 of revenue from this source was included, for budgeting purposes.

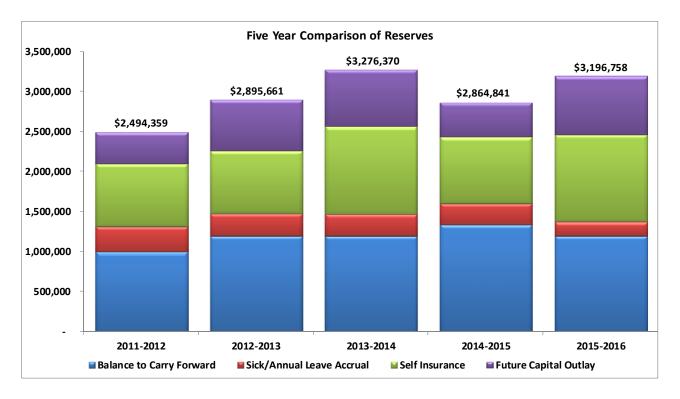


The Ad Valorem Receipts/Millage Rates Chart depicts the Collier County tax base, the millage rate, and the District's cash flow over time. In correlation with the stabilization of the local economy, the tax base in Collier County has begun to strengthen, increasing by 3.6 billion for FY 2014-2015 and 5.1 billion for FY 2015-2016. As the District no longer receives state funds, the state bank account was closed.



Projected expenses for FY 2015-2016 are greater due to anticipated capital expenditures, to include: completion of the hangar fire system, fuel cell corrosion repair on helicopter N221TG, upgrades to the Skyvan display panels, and the purchase of new vehicles. In addition, due to the heavy mosquito season in 2014-2015, we anticipate a larger quantity of larvicide/adulticide materials will be purchased next fiscal year (FY 2015-2016).

As can be seen from the five year comparison of reserves, the Future Capital Outlay account has been replenished with approximately \$300,000, as some of those funds were utilized in fiscal year 2014~2015 to cover upgrades to the facility. The sick and annual leave reserve has been reduced in correlation with a few employees with tenure entering the Deferred Retirement Option Program (DROP) with the Florida Retirement Service (FRS), which reduced the liability. The reserve for self~insurance has increased moderately in unison with District liability.



Employees continue to contribute three percent of their earnings to the FRS. In accordance with Florida Statutes, the District also contributes to the FRS a percentage of employee wages. The percentage is established by the Florida Legislature yearly. On behalf of the pilots, the District contributes to a 401(a) plan, in recognition of the special level of risk associated with their positions.

Funding our retirees' future health benefits is important to the District, thus the Board of Commissioners made discretionary payments totaling \$210,664 to the CMCD Internal Revenue Code Section 115 Retiree Benefit Trust during the fiscal year.

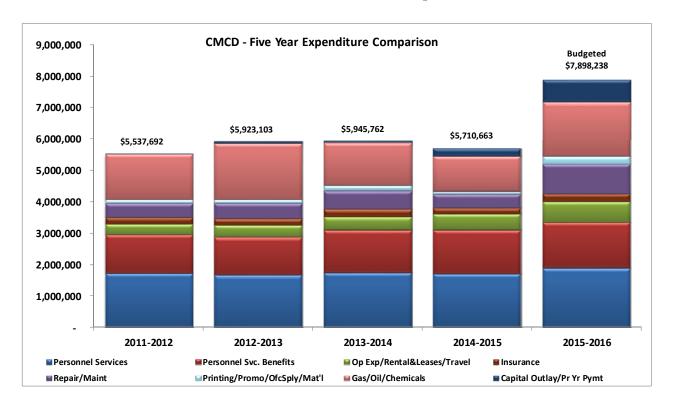
The District maintains a high deductible, defined-contribution health insurance plan that is offset by a personal health fund (PHF). Heritage Consultants, Inc., has been the third-party administrator for five calendar years, and Cigna became our preferred provider organization (PPO) in January of 2013. Employees and their dependents over the age of eighteen are encouraged to participate in a healthy living program which began in January, 2015 and augments the District's health insurance. Those that participate can earn health premium discounts. The program incorporates biometric screening and a health assessment, as well as an interactive wellness website with questionnaires, e-learning, and health challenges. Based on this initiative, there will be no increase in health insurance costs in 2016, for the second year in a row.

The Employee Assistance Program contract was renewed in April of 2014 with Aetna Resources for Living for a three-year period, ending in 2017.

June of 2015 marked eleven years that the District has utilized the services of F. Joseph McMackin, III, Esquire, with Bond, Schoeneck & King, P.A., as general counsel for the District. Attorney McMackin will be passing on the responsibility of primary council to attorney William Owens, with the same firm, effective January 2016. The audit agreement with CliftonLarsonAllen LLP, was extended to cover fiscal years ending 2015 and 2016.

In January, the District implemented a new time and attendance tracking system and converted the pay frequency for payroll from semi-monthly to bi-weekly.

Ensuring that our facilities and equipment are well-maintained and adequate to meet the needs of the organization is critical to the success of the District. In FY 2015-2016, CMCD spent \$437,000 to repair and maintain aircraft, repair and maintain facilities and address other infrastructure needs. These items are explained in more detail within the Aircraft Maintenance and Facilities Maintenance sections of this report.



CMCD budgets for and purchases control materials based on average usage over time. The District's larval and adult control efforts are described under Operations, but from a financial standpoint it is important to note that carryover of adult and larval control materials for use during the 2016 season is valued at \$1.5 million dollars.

Facility Maintenance

Building



Derrick Klein and Richard Ryan prep for Painting

Operations staff made several improvements to CMCD facilities during the 2014~2015 winter season. Old wallpaper was removed and all offices and hallways and a large area of the hangar were repainted. Inspectors remodeled the administrative breakroom: countertops were

replaced, all cabinets were repainted and a new sink and backsplash were installed. The Boardroom front entrance and hallways were also updated with new paint, carpet, and tile. A new projection screen was installed in the Boardroom. Inspectors patched and coated the administration building roof to stop water leaks. Hurricane shutters were sent out for



Nate Phillips installing tile in the lobby

repair and recoating and insecticide hose reels no longer in use were removed from the aircraft service isalnds.

Fire Suppression

Mitchell Engineering has completed plans for installation of a water line across the airport to feed our fire suppression system. Necessary permits have been received from the City and Florida Department of Environmental Protection and specifications for contractor bids are being developed. The tanks that now provide water for this system are beyond salvage and will be scrapped. The project should be completed by the spring of 2016.

Hurricane Preparedness



Ken Bouck, Mark Prince and Jorge Santiago secure hangar doors in preparation for hurricane Erika

In August, Tropical Storm Erika made its way through the Caribbean and seemed to be on a direct path heading for Naples with the possibility of growing to hurricane strength. The expected severity of the storm did not dictate the need for evacuation of our aircraft, but CMCD personnel started through our preparedness plan and did secure the buildings. Fortunately, Erika weakened considerably over Cuba and Naples experienced only a heavy rainfall. Our facilities were reopened and operations were back to normal within a few days.

Training

CMCD supports our employees' personal and professional growth, and training of staff remains an important component of our program. Presenting staff the opportunity to hone their skills, network with peers, and obtain a deeper knowledge of the industry has proven time and again to enhance employee confidence and stimulate new ideas to help the District excel at its core mission.



Adrian Salinas discusses use of social media with Dr. Jack Petersen at the 2015 AMCA conference

Marin Brouillard trains field staff in the use of the GeoPro database

participated in meetings in direct support of mosquito control activities, such as: the Florida Mosquito Control Association (FMCA) annual meeting, American Mosquito Control Association (AMCA) annual meeting, FMCA Dodd

Short Course mosquito control training, FMCA Aerial Fly-in for aerial applications and the Anastasia Arbovirus Workshop. Jim Stark provided an overview

This fiscal year, various staff

members



Tom Wilmot speaks at the 2015 AMCA conference

of the CMCD program at the Anastasia workshop. Adrian Salinas gave presentations on our website and social media activities at the FMCA and AMCA conferences. Tom Wilmot gave an invited presentation at the AMCA conference

"history of mosquito control" symposium. Chris Laidlaw-Bell gave a Power Point presentation on enhanced helicopter conspicuity lighting at the FMCA Fly-In.

Thirteen employees completed fork lift training and recertification in March. Operations staff



Jorge Santiago puts his training to use maintaining a Skyvan

watched AMCA webinar presentations on repellents and larviciding. Administration staff viewed webinars regarding the Affordable Care Act, records management, disaster preparedness, and preventing fraud. Stacy Welch attended the Epicor Insights (accounting software) conference.

Jorge Santiago attended a two-week course at the Honeywell Aerospace Academy on operation and maintenance of the TPE331 engine training used on our Skyvan aircraft. Peter Brake attended a two-week maintenance training course at MD Helicopters in Mesa, Arizona.

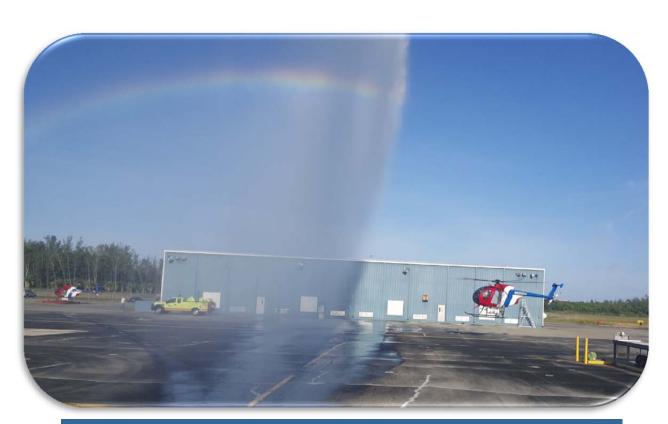
Pilots Chris Laidlaw-Bell, Patrick Linn, Dennis Jones and Nick Klein attended recurrent flight course training in Mesa Arizona at MD Helicopters for the 500D/E helicopter. This training provided a flight review, proficiency checks and other checks whose purpose was to review rule, maneuvers and procedures to demonstrate a pilot's existing skills. Ground school included review of airworthiness directives and notices, helicopter systems, pilot flight

manual review and preflight inspection of the aircraft.



Ken Bouck – Receiving \$5,000 Safety
Training Grant from PGIT

We are pleased that others have recognized the quality of the effort CMCD dedicates to employee training and safety. Thanks to the information provided by Ken Bouck, CMCD was awarded a \$5,000 grant from PGIT (Preferred Governmental Insurance Trust) for our safety training system. Thanks much Ken!



A rainbow guiding Chuck Roderick home after his final flight