City of Jonesboro, Arkansas

RFP 2026:11 Mosquito Control Services

Provided to:
City of Jonesboro, AR
Tracey Cooper, Contract Coordinator
300 South Church Street, Room 330
Jonesboro, AR 72401

Provided by:
Vector Disease Control International, LLC (VDCI)
2221 North Church Street
Jonesboro, AR 72401

Proposal Date:
March 18, 2026 2:00 pm

The following is a response to the Request for Proposals issued by City of Jonesboro (RFP 2006:11 Mosquito Management Services) to provide a comprehensive program of mosquito abatement for the City of Jonesboro, on a year-round (12 month) basis. It is offered by Vector Disease Control International (VDCI) to provide a program of integrated pest management of mosquitoes as guided by the industry standard publications produced by the American Mosquito Control Association, the Florida Public Health Pest Control Manual and the Mosquito Control Operations Manual produced by the Louisiana Mosquito Control Association.

The program described is designed to utilize scientific and environmentally sound techniques of an Integrated Mosquito Management (IMM) program, including:

- Routine Larval and Adulticiding Surveillance
- Ground Larviciding Control
- Ground/Aerial Adulticiding Control
- Arboviral Disease Surveillance and Testing
- Public Education
- Comprehensive Reporting

The program is based upon our extensive experience gained both in the City of Jonesboro over the last thirty (30) years and in the Gulf South during the past thirty-five (35) years during which Vector Disease Control International and its affiliated companies have provided said services to City, County/Parish, municipal, federal government, and corporate clients.

We wish to thank the City of Jonesboro Administration and Council for the opportunity to respond to its Request for Proposals for a mosquito control program. This response begins with a proposal summary highlighting the capabilities and work performed by VDCI.

Sincerely,

Steven G. Pavlovich
Entomologist/ Director of Operations
Vector Disease Control International, LLC (VDCI)

FIRM OVERVIEW

Vector Disease Control International (VDCI) and its associated entities are committed to providing the best possible service to our customers. We strive to improve the quality of human life in communities through education, surveillance and the control of mosquitoes and other disease vectors using environmentally conscious and effective methods. We are also committed to research and the use and support of application technologies. VDCI is a company built on the foundations of public health, ethics, professionalism, and technical expertise. Many of our staff come from the field of public health and have experience with public mosquito control districts all over the country. At all times, we will conduct business through partnerships with our customers in a manner that protects the environment and the welfare of local residents.

VDCI has operations in 22+ states across the country. Established in Arkansas in 1992, VDCI started with the simple idea to provide government entities with the products and services needed to run effective mosquito control programs, VDCI and its associated entities now have over 35 years of experience. VDCI will strive to continue to provide the most efficacious and scientifically sound mosquito surveillance and integrated control programs possible within each program that we provide for our customers.

Because it is often impossible to eradicate all mosquitoes given their behavior patterns, resilient nature and enormous breeding potential, our goal is to manage mosquito populations within tolerable levels and simultaneously help prevent possible outbreaks of mosquito-borne diseases. To achieve this goal, we use a combination of the most effective methods of controlling mosquitoes including surveillance, biological control and the use of insecticides. Inspection of the treatment area coupled with collections from mechanical traps enable us to determine which species of mosquito are present, their population size and locations. This information is critical for determining when, where, and how often larvicides and adulticides need to be applied.

The employees of VDCI recognize and readily accept the special considerations that often surround the use of larviciding and adulticiding practices to abate mosquito populations during a mosquito control program. As a private entity working for you, VDCI looks forward to continue our close working relationship with all appropriate officials, and, as

such, will work with and support you in all surveillance and application decisions. With a fleet of over 350 trucks and 16 aircraft, we are able to provide fully integrated mosquito management programs with both aerial and ground applications in any situation nationwide.

We take great pride in the ability of our programs to protect the public's health from mosquitoes and the diseases they may transmit and to provide a quality-of-life improvement in the control area. As such, we have a long history of establishing fully integrated programs combining all aspects of the American Mosquito Control Association (AMCA) and Centers for Disease Control and Prevention (CDC) guidelines for a quality mosquito control program such as education, surveillance, efficacy testing, larval mosquito control and adult mosquito control.

From consulting to basic contingency aerial applications, to full service integrated mosquito management programs, VDCI's employees strive to create a true partnership with government agencies, communities, and citizens. We invite you to review our proposal for our full and comprehensive mosquito control services. We are confident that you will see that our qualifications, commitment to excellence and prior experience will allow for a successful and cost-effective continued partnership between our company and the City of Jonesboro AR.

PROPOSAL SUMMARY

Background: Vector Disease Control International and its associated company entities have more than 35 years concentrating exclusively on Mosquito Control and Public Health. VDCI is on the cutting edge of technology and expertise in the Mosquito Abatement Industry and operates a fleet of more than 350 fully equipped spray trucks and 16 twin-engine aircraft. Two Medical Entomologists, a Field Biologists, and a Laboratory Biologist are involved in the daily operations of each VDCI program.

Liability Insurance: Our program offers significant insurance coverage which shifts liability from the City of Jonesboro to VDCI. We carry more than 5 million dollars in General Liability Coverage, Excess Automobile Coverage, Contractors Pollution Coverage and 10 million in Aviation Liability.

Spray Equipment: Our proposal provides for the routine use of Six fully equipped spray trucks and at least two similarly equipped extra vehicles to remain in Jonesboro for use as a spare or in emergency response. The sprayers offered are equipped with on board computers, speed guided flow control, and GPS mapping of all relevant spray data. VDCI has access to significant amount of additional equipment and trained personnel if needed in Jonesboro. These assets could be relocated within hours and are often essential following severe weather events and/or encephalitis activity. VDCI offers truck based adulticiding treatment of a minimum of 5500 miles per year and the ground based larviciding of 20 million square feet per year.

Calibration and Droplet Testing: Since the size of the chemical droplets generated by sprayers is critical, we provide an AMES DCIII/ DCIV computer device that collects, measures, and reports important aspects of the chemical cloud to assure effectiveness of the spray on the mosquito population.

Aerial Application: VDCI can provide multiple twin-turbine aircraft equipped to deliver any EPA approved adulticide at ULV rates. We utilize two licensed pilots equipped with military grade night-vision goggles rather than just a pilot and an observer for every spray mission. These pilots have extensive experience in low altitude spraying over urban areas. Our proposal includes eight (8) night-time aerial-based adulticiding applications for the City of Jonesboro in response to extreme pest mosquito populations or for use in the suppression of confirmed mosquito borne disease activity.

Additional Services: Our program provides Jonesboro with two unique service, termed "Barrier Spraying" and "Woodland Fogging". VDCI offers the use of special truck mounted equipment to apply a "barrier" around festivals, sporting events, and other gatherings the day before the event to repel mosquitoes from the site. We also propose to use an ATV mounted ULV sprayer that is capable of targeting adult mosquitoes in adjacent woodlots and other sites inaccessible to road-based vehicles.

Virus Surveillance and Suppression: VDCI has had considerable first-hand experience in disease surveillance and suppression. In response to this, we provide a detailed encephalitis surveillance and suppression plan to the City of Jonesboro as part of our routine operations. This surveillance is part of a protocol examined and reviewed by two state Medical Entomologists and includes a detailed plan to counter virus activity. The protocol includes access to our own purpose built and one of the only privately operated laboratories devoted exclusively to the detection of West Nile encephalitis and other mosquito-borne viruses. This has allowed VDCI to process samples in one to two days compared to the near week required by state laboratories.

Public Education Programs: VDCI provides a means of informing the public of what it can do to reduce mosquito problems around the home and what is being done for them by the City of Jonesboro. The program provided herein includes such methods as radio announcements, printed literature, door to door education, and presentations at schools or civic organizations.

Efficacy Testing: One important aspect of any mosquito abatement program is the scientific monitoring of the chemical effectiveness on the local mosquito population. Accordingly, all pesticides as well as application techniques used in the Jonesboro program will be tested at least once annually. Tests include both laboratory and field trials using laboratory reared or wild captured mosquito larvae and adults to ensure effective control efforts.

Price and Value: Vector Disease Control International has always strived to bring true value to our clients through the services provided in our Mosquito Abatement Programs. Our combined company is able to perform mosquito abatement services at significantly lower rates than in-house/other programs due to our regional presence. VDCI's large footprint allows for greater purchasing power, the ability to spread fixed costs across several programs, and affords each of our operations access to additional equipment, vehicles and personnel if needed to respond to extreme mosquito populations or encephalitis emergencies. We are confident that the reader will find this to again be evident after review of the attached proposal.

Service Points of Contact

All dealings, contacts, etc. between VDCI and the City shall be directed to the City of Jonesboro's Designated Agent and by the City to the VDCI managers. The cell phone numbers of VDCI's managers are provided below. The local manager shall be available 24 hours per day, 7 days per week for emergency contact.

Contact Information is as follows:

Corporate Contact:	Steven Pavlovich, MS, BS Entomologist VDCI Director of Ground Operations (504) 366-0084 Office (504) 250-8515 Cell
Technical Contact:	Dr. Broox Boze VDCI Technical Director (956) 459-1593 Cell
Local Contact:	**James Stark** ***Contract Supervisor, 35+ Year Experience*** (870) 933-6939 Office (870) 930-4503 Cell
VDCI Arkansas Hotline:	(800) 413-4445 Toll Free

Office and Facilities

VDCI shall maintain an office, warehouse and chemical mixing facility for the servicing of the City of Jonesboro Contract. Said office is company owned and is situated at 2221 North Church Street, Jonesboro. It is the place to which all notices, directions, orders, requests and complaints shall be mailed, served or delivered. Normal working hours will be from 7:30 a.m. to 4:00 p.m. on Monday through Friday, excluding holidays as defined herein. If there is an excessive mosquito hatch, spray operations will be extended to weekends and holidays, if necessary. VDCI may elect to operate inspection and larviciding crews during the hours of 6:30 a.m. to 3:00 p.m. for increased larval control and the ability to perform surveillance activities during more optimal times.

Permits and Licenses Necessary to Implement Proposed Program

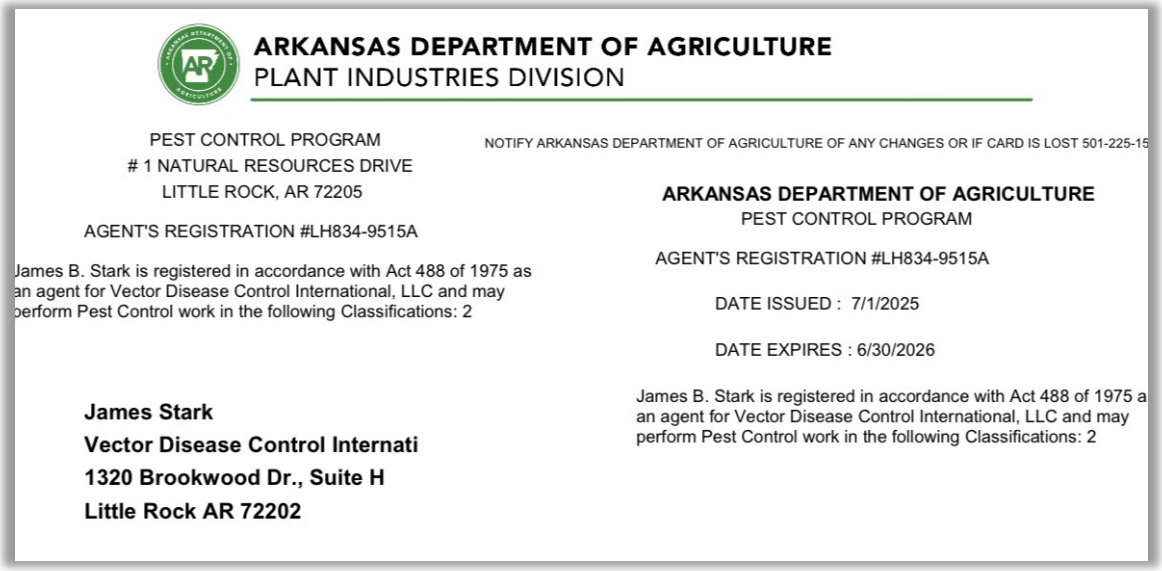
In order to operate an area-wide Mosquito Control Program such as the one proposed for Jonesboro, a company must obtain a "Firm Commercial Applicator" License issued by the Arkansas Department of Agriculture Plant Industries (ADAPI). If aerial mosquito control operations are performed or directed an "Aerial Authorization" issued by the ADAPI is also required. A "Agents Registration" License (Issued by ADAPI) is required when vector control agencies provide certain ground mosquito and public health operations defined herein. (Copies of the VDCI Corporate and Individual Licenses are detailed below)

Arkansas Department of Agriculture License

Arkansas Department of Agriculture Plant Industries
Division, Pesticide Section

Name: Vector Disease Control International LLC
License: Firm Commercial Applicator
License No.: 2208
Status: Active
Renewed: 1/2/2026
Expires: 12/31/2026

Arkansas Commercial Applicator Licenses



ARKANSAS DEPARTMENT OF AGRICULTURE
PLANT INDUSTRIES DIVISION

PEST CONTROL PROGRAM
1 NATURAL RESOURCES DRIVE
LITTLE ROCK, AR 72205

AGENT'S REGISTRATION #LH834-9515A

James B. Stark is registered in accordance with Act 488 of 1975 as an agent for Vector Disease Control International, LLC and may perform Pest Control work in the following Classifications: 2

James Stark
Vector Disease Control Internati
1320 Brookwood Dr., Suite H
Little Rock AR 72202

NOTIFY ARKANSAS DEPARTMENT OF AGRICULTURE OF ANY CHANGES OR IF CARD IS LOST 501-225-15

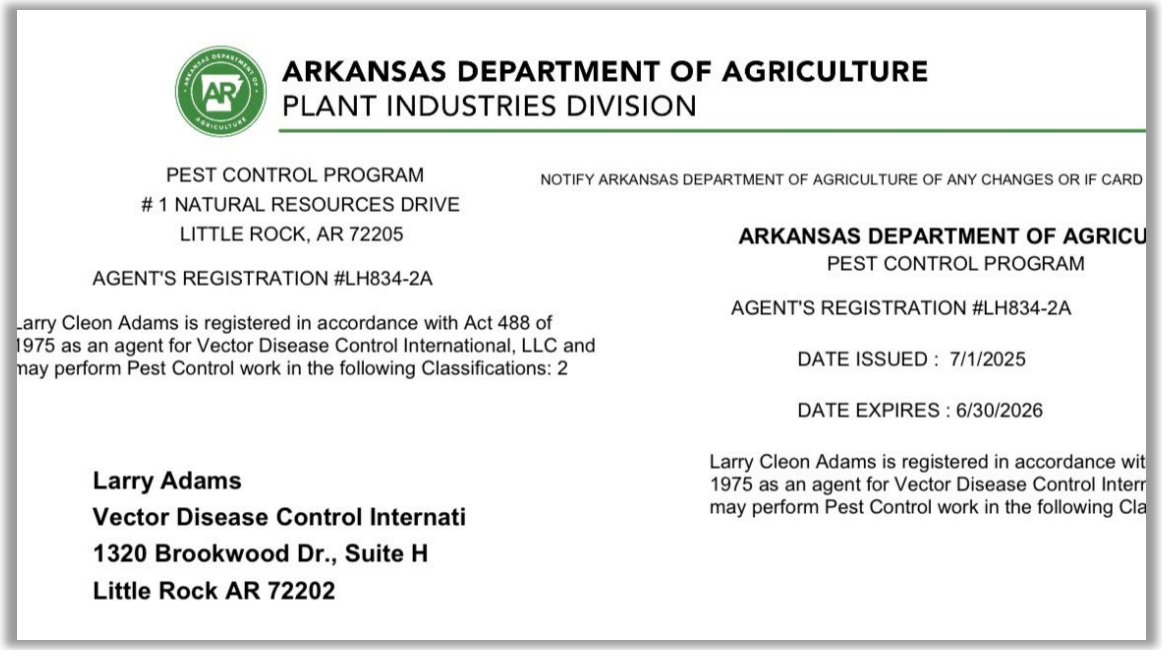
ARKANSAS DEPARTMENT OF AGRICULTURE
PEST CONTROL PROGRAM

AGENT'S REGISTRATION #LH834-9515A

DATE ISSUED : 7/1/2025

DATE EXPIRES : 6/30/2026

James B. Stark is registered in accordance with Act 488 of 1975 a an agent for Vector Disease Control International, LLC and may perform Pest Control work in the following Classifications: 2



ARKANSAS DEPARTMENT OF AGRICULTURE
PLANT INDUSTRIES DIVISION

PEST CONTROL PROGRAM
1 NATURAL RESOURCES DRIVE
LITTLE ROCK, AR 72205

AGENT'S REGISTRATION #LH834-2A

Larry Cleon Adams is registered in accordance with Act 488 of 1975 as an agent for Vector Disease Control International, LLC and may perform Pest Control work in the following Classifications: 2

Larry Adams
Vector Disease Control Internati
1320 Brookwood Dr., Suite H
Little Rock AR 72202

NOTIFY ARKANSAS DEPARTMENT OF AGRICULTURE OF ANY CHANGES OR IF CARD

ARKANSAS DEPARTMENT OF AGRICU
PEST CONTROL PROGRAM

AGENT'S REGISTRATION #LH834-2A

DATE ISSUED : 7/1/2025

DATE EXPIRES : 6/30/2026

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ARKANSAS DEPARTMENT OF AGRICULTURE
PLANT INDUSTRIES DIVISION

PEST CONTROL PROGRAM
1 NATURAL RESOURCES DRIVE
LITTLE ROCK, AR 72205

AGENT'S REGISTRATION #LH834-12A

Jerry Gene Popejoy is registered in accordance with Act 488 of 1975 as an agent for Vector Disease Control International, LLC and may perform Pest Control work in the following Classifications: 2

Jerry Popejoy
Vector Disease Control Internati
1320 Brookwood Dr., Suite H
Little Rock AR 72202

NOTIFY ARKANSAS DEPARTMENT OF AGRICULTURE OF ANY CHANGES OR IF CARD

ARKANSAS DEPARTMENT OF AGRICU
PEST CONTROL PROGRAM

AGENT'S REGISTRATION #LH834-12A

DATE ISSUED : 7/1/2025

DATE EXPIRES : 6/30/2026

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may perform Pest Control work in the following Cla

ARKANSAS DEPARTMENT OF AGRICULTURE
PLANT INDUSTRIES DIVISION

PEST CONTROL PROGRAM
1 NATURAL RESOURCES DRIVE
LITTLE ROCK, AR 72205

AGENT'S REGISTRATION #LH834-17A

Hansel Stephens is registered in accordance with Act 488 of 1975 as an agent for Vector Disease Control International, LLC and may perform Pest Control work in the following Classifications: 2

Hansel Stephens
Vector Disease Control Internati
1320 Brookwood Dr., Suite H
Little Rock AR 72202

NOTIFY ARKANSAS DEPARTMENT OF AGRICULTURE OF ANY CHANGES OR IF CARD

ARKANSAS DEPARTMENT OF AGRICU
PEST CONTROL PROGRAM

AGENT'S REGISTRATION #LH834-17A

DATE ISSUED : 7/1/2025

DATE EXPIRES : 6/30/2026

Hansel Stephens is registered in accordance with
as an agent for Vector Disease Control Internation
perform Pest Control work in the following Classifi

Pilot Certifications

Arkansas Department of Agriculture Plant Industries Division, Pesticide Section

Name: Michael Levi McGaha
License: Individual Commercial Applicator
License No.: 55420
Status: Active
Renewed: 1/2/2026
Expires: 12/31/2026

Arkansas Department of Agriculture Plant Industries Division, Pesticide Section

Name: Jamie Rene Lewis
License: Individual Commercial Applicator
License No.: 54131
Status: Active
Renewed: 1/2/2026
Expires: 12/31/2026

Arkansas Department of Agriculture Plant Industries Division, Pesticide Section

Name: Christopher Wade Jones
License: Individual Commercial Applicator
License No.: 55421
Status: Active
Renewed: 1/2/2026
Expires: 12/31/2026

Arkansas Department of Agriculture Plant Industries Division, Pesticide Section

Name: Tyler Edwards
License: Individual Commercial Applicator
License No.: 55422
Status: Active
Renewed: 1/2/2026
Expires: 12/31/2026

Arkansas Department of Agriculture Plant Industries Division, Pesticide Section

Name: Dylan Joseph Booker
License: Individual Commercial Applicator
License No.: 54847
Status: Active
Renewed: 1/30/2026
Expires: 12/31/2026

Arkansas Department of Agriculture Plant Industries Division, Pesticide Section

Name: Chandler Banning Ladner
License: Individual Commercial Applicator
License No.: 56697
Status: Active
Renewed: 1/2/2026
Expires: 12/31/2026

Applicator Licenses: (Copies and Expirations in Previous Section)

State of Arkansas Pesticide Contractor License –

Vector Disease Control International LLC - 2208

State of Arkansas Pesticide Applicators Licenses -

Technician Applicators

James Stark	Applicator-Classification 2	Lic. #LH834-9515A
Larry Adams	Applicator-Classification 2	Lic. #LH834-2A
Jerry Popejoy	Applicator-Classification 2	Lic. #LH834-12A
Hansel Stephens	Applicator-Classification 2	Lic. #LH834-17A
Steven Pavlovich	Applicator-Classification 2	Lic. # Aerial 51656

Aerial Applicators

Michael McGaha	License: Individual Commercial Applicator	Lic. # 55420
Jamie Lewis	License: Individual Commercial Applicator	Lic. # 54131
Christopher Jones	License: Individual Commercial Applicator	Lic. # 55421
Tyler Edwards	License: Individual Commercial Applicator	Lic. # 55422
Chandler Ladner	License: Individual Commercial Applicator	Lic. # 56697
Dylan Booker	License: Individual Commercial Applicator	Lic. # 54847

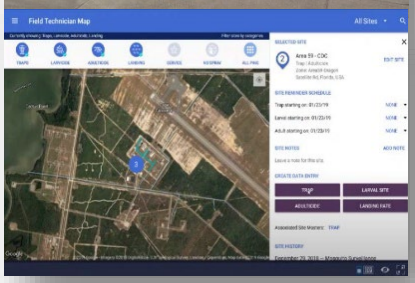
City of Jonesboro Mosquito Program Equipment List

VDCI will provide a minimum of Six (6) ¼ ton pick-up trucks for the application of larvicides and adulticides**.** All vehicles and equipment will be kept in good repair, have a clean appearance and be in a sanitary condition acceptable to the City at all times. Each vehicle shall have appropriate spill kits and safety equipment and will be clearly identified as a mosquito control vehicle.

Each vehicle will be equipped with a two-way radio or cellular telephone to ensure communications with VDCI's dispatcher. Spray vehicles used to apply adulticiding chemicals will have a map and tracking system to report time, location, speed, and direction of the vehicle as well as when the sprayer was actively spraying and when it was not spraying. All spray vehicles will be marked with a unique three inch by two-inch number for identification purposes. A detailed list of other equipment is given below:

EQUIPMENT LIST

Vehicles - **6 Toyota Tacoma or Chevy Colorado trucks** equipped with:
Proprietary VDCI Developed Tablet Computer with Onboard Flow Control monitoring and GPS tracking system,
Communication devices,
Rotating beacons,
Hold-down safety chains,
Chemical spill kits
1-Bobcat 3400 Side-By-Side ATV



Aircraft – A **Twin-Engine Aircraft** equipped with:
ULV spray system compatible with all chemicals approved by EPA for mosquito abatement,
Agnav Flightmaster GPS application
With flow control to assist spray system,
Night vision goggles

Sprayers - as noted below:
8 Truck mounted, Heavy Duty London Fog ULV sprayers –
Equipped with **TGSM flow control systems**
A-1 Octopus Wide Area Larvicide (WAL) Unit-
Electric larvicide sprayers - (3),
Back-pack sprayer, manual-(5),
Back-pack sprayer, power-(5).

Laboratory: Equipped as noted below:
West Nile test kits
Encephalitis Viruses test kits,
Mosquito rearing paraphernalia,
Insecticide efficacy testing equipment,
Autoclave Sterilizer,
Ultraviolet lighting equipment,
Laboratory grade pipettors,
Laboratory grade glass wear,
Miscellaneous laboratory equipment,
Computer w/laboratory software.

Special Equipment:

AMES DCIV Droplet Testing Machine
with associated operating computers

Miscellaneous:

Light traps, New Jersey type – (24),
Light traps, CDC type – (6-8),
Gravid Traps – (6-8),
Tanks, chemical storage and mixing,
Pumps, transfer type,
"A" frame hoist,
Mosquito Fish holding/breeding tank,
Microscopes two (2),
Microscope lamps,
Slide spinners, electric,
Personnel uniforms and IDs for easy identification by residents,
Personal safety equipment,
Computer systems, Office equipment – various

** Please note that in addition to the above equipment, VDCI maintains additional spray vehicles, equipment, and trained personnel located at our other Arkansas locations that are available if needed.*

Storage and Extra Equipment

Extra Surveillance Equipment for Repair and Extra Surveillance

Extra ULV Application Equipment

Multiple Polytanks, Backpacks, Handheld foggers, and other equipment

Chemicals and Mixing Tanks

Multiple Chemical Concentrates and Mixed Products

Mix Tanks and Heavy-Duty A-Frame for Filling and Servicing Machines

ULV Application Equipment

ULV Application Equipment

Drain Fogging Applicator for West Nile Potential Mosquitoes

London Fog ULV Application Equipment

Alternative Application Equipment

Airplanes for Adulticiding, Larviciding, and for Emergencies

Side-by-Side Bobcat with ULV and Larviciding Equipment

Barrier Treatment Application Equipment for Special Events and Larviciding Efforts

Extra Equipment, Vehicles, and Resources

Extra Fuel and Chemical for Emergencies and Supply

Extra Spray Application Equipment for Emergencies and Repair

Extra Trucks for Emergencies and Repair

Personnel Structure and Qualifications

Management Approach:

VDCI's senior staff consists of Medical Entomologists and Biologists with managerial experience ranging from ten (10) to thirty (30) years in conducting area-wide mosquito abatement. Entomologists, Biologists and Field Managers work under the direct guidance of the senior staff and discuss the mosquito situation on a daily basis. Field managers assign routine tasks to Inspectors/Technicians who gather surveillance data, environmental conditions and other information that allows the team to formulate the appropriate responses to mosquito problems when they arise.

Key Personnel:

Steven Pavlovich
Director of Field Operations / Entomologist
Louisiana Resident

Steven Pavlovich is the Director of Field Operations and a Medical Entomologist with over 30 years of experience in mosquito abatement and vector management. Holding a Master of Science degree in Medical Entomology, Steve brings both scientific expertise and operational leadership to large-scale public health programs. He coordinates abatement efforts across multiple regions, working closely with entomologists, biologists, and operations managers to ensure integrated, evidence-based strategies. Steve provides technical guidance on pesticide application, resistance management, and surveillance protocols, and supports aerial assignments and advanced treatment technologies. His role extends beyond field operations to include assistance with services, purchasing, and public relations, where he communicates program goals to municipal partners and the public with clarity and professionalism. Known for his ability to bridge science and operations, Steve ensures that programs remain compliant, efficient, and responsive to community needs. His decades of experience and broad expertise make him a trusted leader in delivering effective, environmentally responsible mosquito control solutions.

Jim Stark

Field Manager

Local Resident

Jim Stark serves as the Manager for Vector Disease Control International's Jonesboro program. He brings over three decades of experience in mosquito control, having worked with Jonesboro Mosquito Control since 1994. Jim's deep knowledge of local mosquito habitats, treatment strategies, and community needs ensures program delivery is continuous and effective. As manager, Jim oversees all aspects of field operations, including surveillance activities to monitor mosquito populations and disease risk. He directs treatment decisions based on surveillance data, ensuring compliance with product labels, regulatory requirements, and safety protocols. Jim also manages truck missions, coordinating routes and application schedules to maximize efficiency and coverage. His combination of technical expertise, operational leadership, and long-standing local experience makes him a trusted leader in safeguarding public health through integrated mosquito management.

Samuel Stines

Chief Biologist

Louisiana Resident

Sam Stines is a seasoned biologist with over 23 years of experience in mosquito abatement and integrated pest management. Holding a Bachelor of Science degree in Biology, Sam provides both scientific and managerial oversight for city-wide programs, ensuring that service strategies are implemented effectively and in compliance with public health standards. He supervises biological activities including surveillance, species identification, and resistance monitoring, while coordinating with operations teams to align field practices with scientific findings. Sam also assists directly in abatement applications, bringing hands-on expertise in pesticide deployment and efficacy testing to validate treatment outcomes. His ability to integrate biological data with operational planning ensures that programs remain efficient, evidence-based, and responsive to community needs. With two decades of experience, Sam is recognized for his leadership, technical proficiency, and commitment to advancing environmentally responsible mosquito control strategies.

Dr. Broox Boze
National Support
Louisiana Resident

Director of Technology, Innovation and Emergency Operations - Doctor of Philosophy- Biologist- Mosquito Abatement Experience- 12 years- (Curriculum Vitae attached) - Dr. Boze serves as the scientific liaison working with FEMA, CDC, and AMCA during each emergency response. Broox also works with each Regional Manager, Staff Supervisor, and Field Personnel to ensure that every operation is based upon the science of approved vector control practices.

Dr Peter Obenauer
National Support
VDCI Technical and Training Manager

Technical and Training Manger - Doctor of Philosophy in Entomologist. He is a retired Navy veteran Captain who served over 23 years. In 2015, he was seconded at the Centers for Disease Control and Prevention (CDC) serving the President's Malaria Initiative as the entomological representative. He concluded his military career at the Navy Environmental Preventive Medicine where he served as the Officer in Charge. He has authored and co-authored over 30 scientific publications. A member of the Entomological Society of America, the Society for Vector Ecology, and the American Mosquito Control Association. Peter has a master's degree in Entomology from the University of Tennessee-Knoxville and a Doctor of Philosophy Degree in Entomology from the University of Florida.

Michael McGaha
National Support
VDCI Chief Pilot

Chief Pilot and Manager of Aerial Operations –VDCI's Aerial Division Manager. United States Marine Corp. - During his time in the industry, Michael has accumulated 1000's of hours of flight time completing aerial applications to manage mosquito populations and control fires. His organization skills, training protocols, and attention to safety are second to none. Mike works with the FAA to obtain proper registration and ensures the safe operation of mosquito planes.

Jamie Lewis
National Support
VDCI Assistant Chief Pilot

Assistant Chief Pilot and Assistant Manager of Aerial Operations. Safety Manager and Trainer. During her time in the industry, Jamie has accumulated thousands of hours of flight time completing aerial applications to manage mosquito populations. Ms. Lewis works with the FAA to obtain proper registration and ensures the safe operation of mosquito planes.

Personnel who will perform the Business Administration of the contract:

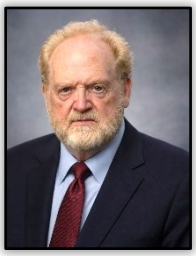
Cheryl Weathers
Administrator
Local Jonesboro Resident

Administrator – 9 Years of Mosquito Abatement Experience. Cheryl brings exceptional organizational knowledge and operational continuity to the program. She has detailed knowledge of city spray zones and exclusion areas, ensuring precise coordination of treatment activities. Cheryl manages citizen service requests through both phone and web platforms, articulating program goals with clarity and professionalism. Her meticulous attention to detail and commitment to responsive service enables daily operations to run smoothly and effectively, making her an indispensable member of the team.

Erica Weathers
Administrator
Local Jonesboro Resident

Administrator – 4 Years of Mosquito Abatement Experience. Performs administrative activities and ensures regulatory compliance for the business and employees. Quality control with residential inquiries and complaints. Formulates monthly, and annual reports. Monitors truck tracking and updates website. She also maintains the GIS mapping system for exclusion zones and oversees database management, producing accurate reports that support compliance and performance tracking.

Personnel who will perform the Daily Control/Surveillance aspects of the contract:



Hansel Stephens
Technician/Mechanic/Aerial Support
Local Resident

Inspector/Applicator/Mechanic – Mosquito Control work for **18 years** Robert brings valuable local knowledge and hands-on expertise to the program, supporting daily field activities with precision and reliability. His responsibilities include conducting surveillance, assisting with pesticide applications, maintaining equipment, and ensuring compliance with operational protocols which include equipment calibration.

Jerry Popejoy
Technician
Local Resident

Inspector/Applicator – Mosquito Control work for **12 years** – Performs the extensive survey and larviciding of mosquito breeding areas (including tire piles), maintaining a variety of traps, and collecting samples for disease testing. Jerry Geotags breeding spots to create data used in GIS applications, light traps, and Gravid traps for use in truck-based laptop computer applications.

Tony Holmes
Technician/Aerial Support/Truck Sprayer
Local Resident

Inspector/Applicator – Mosquito Control work for **3 years** – Larviciding of mosquito breeding areas, collecting mosquito samples from surveillance traps. Performs service requests to help solve residential mosquito problems and provide education to help citizens protect themselves and help neighbors. Assists the aerial division in preparations for applications. Also performs night truck applications are implemented when needed.

Kylan Shelton
Technician/Aerial Support/Truck Sprayer
Local Resident

Inspector/Applicator – Mosquito Control work for **2 years** – conducting surveillance work including trap placement and checks, gravid trap monitoring, tire pile inspections, larviciding, and service request responses. Supports nighttime truck spraying when needed and assists with loading adulticiding aircraft.

Spray Truck Drivers:

In addition to the staff above, VDCI employs colleagues that are our evening spray truck drivers. Each of these individuals meets our organization's and insurer's driving standards, as well as, has completed our extensive driving training. Most of these colleagues have been driving for us for more than 2 years. They have extensive knowledge on the City roads and familiarity with the spray zones.

Rex Christian
Spray Truck Driver/Technician
Local Resident

Mosquito Control work for **16 years** – Extensive local knowledge of Jonesboro. Adulticide Truck Applicator and instructor for new drivers. Knowledge and experience performing surveillance, control applications over large cities and difficult areas. GIS field and database entry experience.

Larry Adams
Spray Truck Driver/Aerial Support
Local Resident

Mosquito Control work for **11 years** – conducts nighttime mosquito control operations using specialized ultra-low volume (ULV) spray equipment. The role involves safely applying approved insecticides, following precise routes and application guidelines, and ensuring equipment is calibrated and functioning properly. Assists in safely loading aircraft for aerial treatments.

April Sutton
Spray Truck Driver
Local Resident

Mosquito Control work for **12 years** – Performs nighttime mosquito control activities using specialized ultra-low-volume (ULV) spray equipment. Safe application of approved insecticides while following designated routes and established operational guidelines. Responsibilities also include maintaining and calibrating equipment to ensure effective and accurate mosquito control treatments.

Jaylon Allison
Spray Truck Driver
Local Resident

Mosquito Control work for **3 years** – Conducts nighttime mosquito control treatments using truck-mounted spray equipment. Follows assigned routes, applying approved materials safely, and adheres to operational protocols. Equipment operation, inspection, and basic maintenance are also key responsibilities to ensure effective mosquito control.

Aidan Orrick
Spray Truck Driver
Local Resident

Mosquito Control work for **4 years** – Operates truck-mounted ULV mosquito control equipment during evening operations to support community mosquito management efforts. Follows predetermined routes and treatment procedures while applying approved insecticides in accordance with safety guidelines. Also performs monitoring and maintaining spray equipment to ensure accurate and effective applications.

Richard Walden

Spray Truck Driver
Local Resident

Mosquito Control work for **2years** -Conducts nighttime mosquito control treatments using truck-mounted spray equipment. Follows assigned routes, applying approved materials safely, and adheres to operational protocols. Equipment operation, inspection, and basic maintenance are key responsibilities to ensure effective mosquito control.

Employees Dedicated to the Jonesboro Program (8)

The following list of colleagues are those individuals that are dedicated to the City of Jonesboro Operations. All of the local residents above work out of our Jonesboro office location and participate in the City of Jonesboro Services as well as these individuals. A total of thirteen (13) total Jonesboro based colleagues are routinely involved in the services provided to the City.
James Stark
Hansel Stevens
Larry Adams
Jerry Popjoy
Tony Holmes
Aidan Orrick
Erika Weathers
Rex Christian
Richard Walden

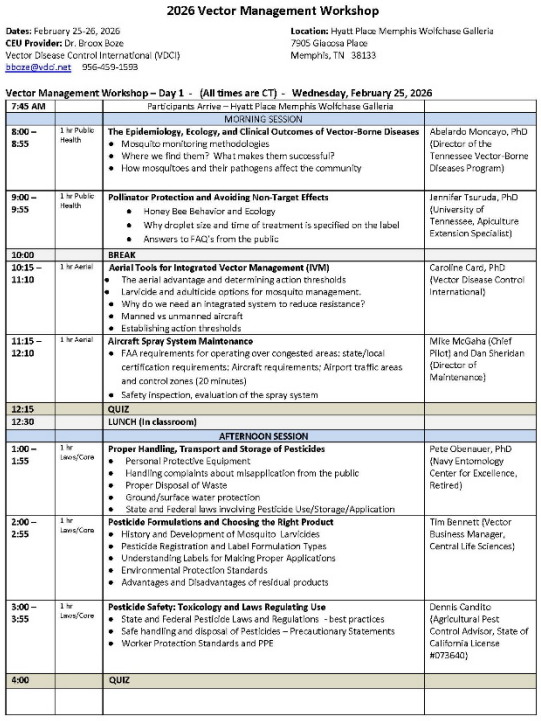
Regional 10 Employees that support the Jonesboro Program

Michael McGaha – Chief Pilot
Jamie Lewis- Assistant Chief Pilot
Christopher Jones – Pilot
Chandler Ladner- Pilot
Tyler Edwards- Pilot
Dylan Booker- Pilot
Steven Pavlovich- Director of Field Operations
Sam Stines- Chief Biologist
Dr Broox Boox- Technical Director
Dr. Peter Obeneaur- Technical Training Manager

Employee Training:

Employee training is an integral part of VDCI's philosophy. Management personnel spend considerable time with field and laboratory staff to ensure that mosquito biology, control options and company policy is well understood. After completion of our training program, all inspectors are sent to the state for examination and certification. Inspectors are routinely sent to attend area conferences on mosquito abatement in order to keep their skills and certification current. Spray-truck drivers are given more than 25 hours of training in proper spray techniques, equipment

operation, and reaction to emergency situations. Annually VDCI hosts a State of Arkansas approved continuing education meeting that all certified applicators. In February 2026, this meeting was in Memphis. Our Jonesboro team attended this two-day meeting either in person or as part of a virtual meeting. The agenda to this meeting as well as the approval of the Arkansas Department of Agriculture is provided below.



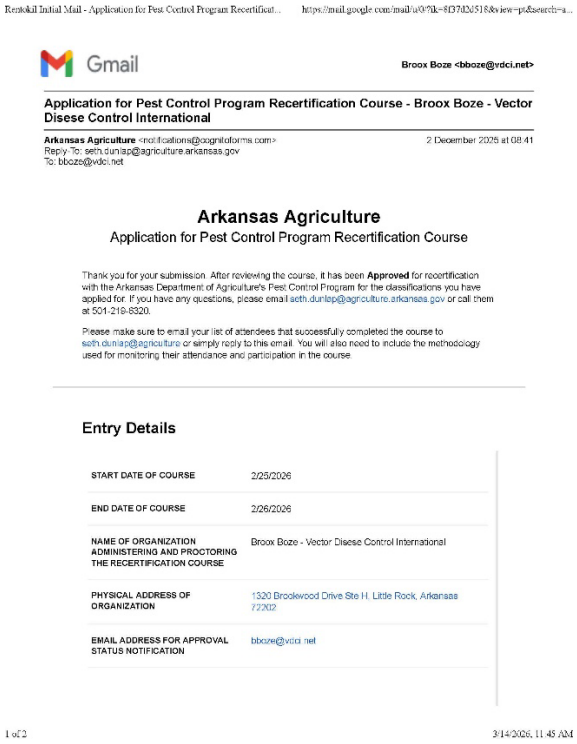
2026 Vector Management Workshop

Dates: February 25-26, 2026
CEU Provider: Dr. Broox Boze
Vector Disease Control International (VDCI)
bboze@vdci.net 956-459-1593

Location: Hyatt Place Memphis Wolfchase Galleria
7905 Glacosa Place
Memphis, TN 38133

Vector Management Workshop – Day 1 - (All times are CT) - Wednesday, February 25, 2026

7:45 AM		Participants Arrive – Hyatt Place Memphis Wolfchase Galleria	
		MORNING SESSION	
8:00 – 8:55	1 hr Public Health	**The Epidemiology, Ecology, and Clinical Outcomes of Vector-Borne Diseases** • Mosquito monitoring methodologies • Where we find them? What makes them successful? • How mosquitoes and their pathogens affect the community	Abelardo Moncayo, PhD (Director of the Tennessee Vector-Borne Diseases Program)
9:00 – 9:55	1 hr Public Health	**Pollinator Protection and Avoiding Non-Target Effects** • Honey Bee Behavior and Ecology • Why droplet size and time of treatment is specified on the label • Answers to FAQ's from the public	Jennifer Tsuruda, PhD (University of Tennessee, Apiculture Extension Specialist)
10:00		**BREAK**	
10:15 – 11:10	1 hr Aerial	**Aerial Tools for Integrated Vector Management (IVM)** • The aerial advantage and determining action thresholds • Larvicide and adulticide options for mosquito management. • Why do we need an integrated system to reduce resistance? • Manned vs unmanned aircraft • Establishing action thresholds	Caroline Caro, PhD (Vector Disease Control International)
11:15 – 12:10	1 hr Aerial	**Aircraft Spray System Maintenance** • FAA requirements for operating over congested areas: state/local certification requirements; Aircraft requirements; Airport traffic areas and control zones (20 minutes) • Safety inspection, evaluation of the spray system	Mike McGaha (Chief Pilot) and Dan Sheridan (Director of Maintenance)
12:15		**QUIZ**	
12:30		**LUNCH (In classroom)**	
		AFTERNOON SESSION	
1:00 – 1:55	1 hr Laws/Core	**Proper Handling, Transport and Storage of Pesticides** • Personal Protective Equipment • Handling complaints about misapplication from the public • Proper Disposal of Waste • Ground/surface water protection • State and Federal laws involving Pesticide Use/Storage/Application	Pete Obenauer, PhD (Navy Entomology Center for Excellence, Retired)
2:00 – 2:55	1 hr Laws/Core	**Pesticide Formulations and Choosing the Right Product** • History and Development of Mosquito Larvicides • Pesticide Registration and Label Formulation Types • Understanding Labels for Making Proper Applications • Environmental Protection Standards • Advantages and Disadvantages of residual products	Tim Bennett (Vector Business Manager, Central Life Sciences)
3:00 – 3:55	1 hr Laws/Core	**Pesticide Safety: Toxicology and Laws Regulating Use** • State and Federal Pesticide Laws and Regulations - best practices • Safe handling and disposal of Pesticides – Precautionary Statements • Worker Protection Standards and PPE	Dennis Candito (Agricultural Pest Control Advisor, State of California License #073640)
4:00		**QUIZ**	



Rentokil Initial Mail - Application for Pest Control Program Recertificat... https://mail.google.com/mail/u/0/?ik=8f37d2d518&view=pt&search=a...

Gmail Broox Boze <bboze@vdci.net>

Application for Pest Control Program Recertification Course - Broox Boze - Vector Disese Control International

Arkansas Agriculture <notifications@cognitoforms.com> 2 December 2025 at 08:41
Reply-To: seth.dunlap@agriculture.arkansas.gov
To: bboze@vdci.net

Arkansas Agriculture
Application for Pest Control Program Recertification Course

Thank you for your submission. After reviewing the course, it has been **Approved** for recertification with the Arkansas Department of Agriculture's Pest Control Program for the classifications you have applied for. If you have any questions, please email seth.dunlap@agriculture.arkansas.gov or call them at 501-219-8320.

Please make sure to email your list of attendees that successfully completed the course to seth.dunlap@agriculture or simply reply to this email. You will also need to include the methodology used for monitoring their attendance and participation in the course.

Entry Details

START DATE OF COURSE	2/25/2026
END DATE OF COURSE	2/26/2026
NAME OF ORGANIZATION ADMINISTERING AND PROCTORING THE RECERTIFICATION COURSE	Broox Boze - Vector Disese Control International
PHYSICAL ADDRESS OF ORGANIZATION	1320 Brookwood Drive Ste H, Little Rock, Arkansas 72202
EMAIL ADDRESS FOR APPROVAL STATUS NOTIFICATION	bboze@vdci.net

1 of 2 3/14/2026, 11:45 AM

Economic Impact to the City of Jonesboro (Confidential)

VDCI estimates based on previous experience that the cost of labor attributed to the local Jonesboro colleagues being roughly $225K to $245K. An additional economic impact to the businesses of the City of Jonesboro for utilities, supplies, fuel, vehicle and equipment purchased is estimated at $95K to $110K annually. These numbers are exclusive of the purchase of specialized mosquito control products and application equipment that are only available from out-of-state vendors.

Program Scope of Services

Our programs use scientific guidance in our operations before any chemical applications, and we rely on several industry-standard surveillance traps and methods to obtain this data. Since different mosquito species are attracted to different trap types, using a variety of traps helps ensure we capture the full diversity of mosquito species in and around Jonesboro. Below is a description of

our Surveillance Strategy, Control Methodologies and the rationale behind our program phases that show how we determine when, what type, and the extent of abatement efforts are needed to reduce mosquito populations and help protect the citizens of Jonesboro.

Approach for Inspection and Surveillance
Larval Mosquito Surveillance

The purpose of inspection and surveillance in a mosquito control program is to define the problem in terms of type, extent, and location. Since the problem is biological, it is dynamic, and requires an almost constant input and analysis of data. This information gathering effort is directed to both mosquito larvae and adults, but while the techniques and objectives employed in tracking these life forms differ considerably, VDCI has the professional and technical expertise to perform these duties.

Mosquito Larvae

The object of our larval inspection program is to locate, map, and catalog active mosquito breeding sites. Although it is an ongoing process, the long-range goal of this program phase is the location and record of all major breeding sites in and around the City of Jonesboro. This information then makes it possible to quickly return to breeding sites following rainfall or other flooding event and effect control. It is, quite simply, a technique that makes the overall program more effective and efficient.

VDCI's larval surveillance efforts for the City of Jonesboro will be focused on the following potential breeding sites:

Permanent Water sites consist of habitat that remains inundated for an extended period of time.
Examples of these sites would be stagnant water, retention ponds, swampy lands, and at certain times agricultural fields, etc.
Permanent water sites will be inspected on a routine basis throughout the mosquito breeding season. These areas can produce large numbers of various species of mosquitoes such as *Culex spp., Anopheles quadramaculatus*, *An. crucians,* and *Coquilletidia perturbans and Psorophora columbiae.*

Temporary Floodwater is standing water that may exist for short periods of time after high water or rainfall. Examples of this type of habitat would include woodland pools,

swales (low areas), irrigated pastures, drainage ditches, tire ruts, and sub-water. Large numbers of mosquitoes can be produced in a short period of time from these sites. These areas will be inspected for the presence of larvae as soon as possible after every substantial rainfall. Mosquitoes expected to be found at these sites include *Aedes vexans, Ae. canadensis, Psorophora columbiae, Ps. howardii, Ps. ciliata, Ps. ferox.*

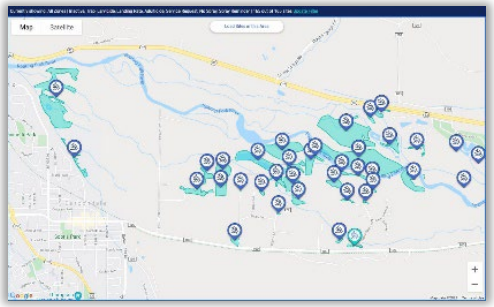
Artificial Containers/Tree Holes are considered one of the most troublesome problems faced by mosquito control operation. Artificial containers may occur throughout the control area and produce mosquitoes in every backyard. Anything that holds water can produce artificial container species. Old tires, cans, bottles, buckets, cups, pet water bowls, birdbaths, gutters, and swimming pools are some of the more common artificial containers. From this type of habitat comes some of the most troublesome pest species. Some species that occur in artificial containers include *Aedes albopictus, Ae. Aegypti, Cx. restuans, Cx. erraticus, Ochlerotatus triseriatus, Orthopodomyia signifera, and Toxorhynchites rutilus septentrionalis.* As private and public properties are inspected, container habitats will be checked and removed/emptied as needed.

Septic Water Habitats occur when water holding areas become polluted with high levels of organic matter. Examples of this type of habitat would include oxidation ponds, ditches with sewage discharge or run off from decaying plant or animal life and waste- water treatment plants. Septic water can often produce the largest number of mosquitoes per unit of area. *Culex quinquefasciatus* and *Cx. restuans* are often the most common species found in this habitat and are also the primary vector for West Nile virus in the United States. Routine management of this habitat type enhances the control of arboviral vectors and is vital to the public's health.

Storm Drains and Catch Basins occur throughout urban areas and are capable of breeding numerous mosquito species. Of primary concern in these habitats is *Cx. quinquefasciatus* and *Cx. restuans*, the primary vectors of West Nile virus. Although all catch basins may hold water at some point in time, not all catch basins are sites of prolific mosquito breeding. Improper drainage, poor design, and amount of rainfall can all contribute to the number of mosquitoes produced in catch basins. Storm drains and catch basins will be visually assessed for mosquito breeding and where appropriate treated.

Identify Sites

The inspection for and mapping of mosquito breeding sites will be aided by Global Positioning System (GPS) and GIS technology. Hand-held Field and Truck Mounted Tablet Computers will allow crews to precisely record breeding locations and will guide the return visit and re-inspection of the site. These systems will be used in combination to create a database of mosquito breeding sites. VDCI employs six to



eight of these devices in Jonesboro to record and identify sites. The resulting data is then used in determining larvicide and adulticide needs as well as in evaluation of said treatments.

Site Inspections

Inspection of mosquito breeding sites will be conducted weekly to monthly addressing all known or suspected locations on a routine basis as directed by rainfall, flooding events, and mosquito activity trends.
Inspections will be conducted using standard mosquito survey techniques. Representative samples will be collected and identified to genus; fourth instar larvae will be identified to species whenever possible. Records of these inspections will show larvae density as a series of ranges per dip. Additional data such as water depth, water type, larval genus, developmental stage and treatment type will also be recorded when pertinent. Resulting data will be used in determining needed larviciding and adulticiding response.

Since rainfall is a major factor in hatching floodwater mosquito eggs, data on rainfall events is very important. This information, used to guide Inspectors to mosquito breeding areas most likely to be flooded, will be collected each week from various rain gauges located in representative sites throughout the city.

Supplemental larval surveillance direction may be provided by observing plant type as an indicator of both positive and potential mosquito breeding locations.

Adult Surveillance / Inspection

The New Jersey Light Trap, an industry standard surveillance tool will be utilized by VDCI to monitor the adult mosquito population in Jonesboro. VDCI will employ 22 New Jersey traps installed in representative locations. These traps will be operated one to two times each week throughout the mosquito season. The traps will remain in the same or similar locations from one year to another to preserve the resultant historical data. Mosquitoes collected by said traps will be identified to species and reported as to the number of males/females of each pest species per trap location per trap night. A trap night is defined as the period from approximately dusk to dawn when a light trap operates.

Data on adult mosquitoes will also be collected by Landing Rate Counts, a technique that records the number of mosquitoes attracted to an Inspector within a specified time interval. Observations will be made near light trap locations when light trap samples are collected. Data on this technique will illustrate the landing rate of mosquitoes per minute, and their identity to species. This method is particularly useful when dealing with rice fields and other flood water mosquito species that can

be very common in the low-lying around Jonesboro. Data collected using this technique will be used to supplement the information gathered by the light traps and aid in determining optimum spray responses for that specific mosquito species.

Six CDC (Center for Disease Control) Light Traps will be employed to supplement available adult mosquito surveillance data. These traps are portable, battery powered sampling devices that can be baited with Carbon Dioxide and used in areas where electricity is not available, or when information is needed from specific sites not already sampled by New Jersey Light Traps. These CDC traps can also be used to supplement the use of Gravid Traps (West Nile Traps) in collecting mosquitoes for encephalitis and other disease testing.

Vector Disease Control International will continue to test and utilize new technologies when advantageous to the program. Currently, Dr. Broox Boze, the Director of Technology for VDCI, is testing the efficacy and working with companies on new products. VDCI has been testing the Biogent's Wi-Fi surveillance traps for several years. This trap attracts mosquitoes, particularly container breeding mosquitoes and indicates when the mosquito enters the trap. Although the results are not completely accurate, we will continue to test this and other technologies and apply them to routine operations when applicable.

Expanded Encephalitis Surveillance

VDCI will provide surveillance for the mosquito borne viruses of West Nile virus, St Louis Encephalitis and other mosquito borne diseases as may be needed. Samples of adult mosquitoes will be collected with use of Gravid Traps and CDC Traps once to twice a week based on environmental conditions and vector mosquito populations. Based on VDCI's experience in Jonesboro, we will routinely use 6 to 8 Gravid Traps one to two times per week for mosquito-borne disease surveillance. Resultant samples, taken from representative areas of the City, will be tested for the presence of virus activity by an Animal Disease Diagnostic Laboratory capable of mosquito borne disease testing. When necessary, samples may be tested in VDCI's Jonesboro location or overnighted to our state-of -the-

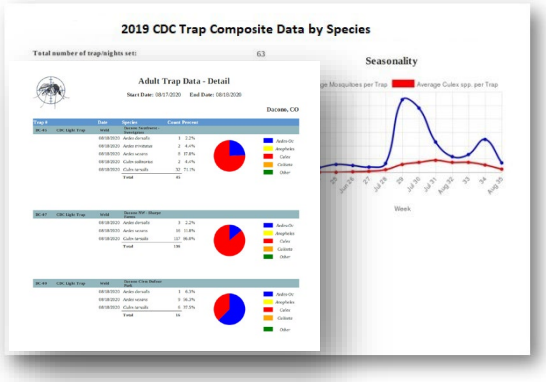
art Louisiana Lab using the RAMP or VecTOR testing system to provide follow-up data or when an immediate test result is required.

The plan submitted herein is in keeping with long standing virus monitoring efforts and contains provisions for a multi-level approach to surveillance of suspected vectors. Since SLE and WNV are the two viruses likely to cause the greatest problems, particular attention will be paid to the prime vector, *Culex quinquefasciatus* (the Southern House Mosquito), and the potential vector, *Aedes albopictus* (the Asian Tiger).

Mosquito Identification Experience & Equipment

VDCI and its affiliated companies have had considerable first-hand experience in disease surveillance and suppression over the past three decades in providing encephalitis surveillance and suppression for our clients, VDCI has routinely detected several types of mosquito-borne diseases routinely across the gulf. In response to this, we provide surveillance for multiple encephalitis types in each of our southern programs including West Nile Virus, Eastern Equine Encephalitis, and St. Louis Encephalitis during the mosquito season.

Mosquito Identification is a standard process in VDCI's Integrated Mosquito Management (IMM) programs. These reports depict standard reporting that will be provided to the City that will include not only the total count of each trap, but also an identification overview of the specific mosquito species.



Our trained entomologists can decipher incredibly useful data by speciation from the trap collections and field inspections described above, such as: breeding habitat, preferred blood source, peak activity time, migration pattern and range, disease-capability, chemical susceptibility, among other things. On a daily basis, we think through all these factors and only then assign adulticide truck spray routes that we believe will allow us to effectively address the pestiferous and disease-capable vectors at the exact location and time and with the appropriate chemical.

Methodology for Subsampling Large Mosquito Catches

VDCI biologists typically identify each of the specimens collected in adult mosquito trapping program individually and to species. If, however, a collection for a unique site is extremely large and contains more than an estimated 500 individuals, then the taxonomist will calculate the amount and make of the collection using a sub-sample. This will be done by dividing the collection into four equal parts, counting and identifying each of the individuals in one of the four parts and then multiplying the resultant data obtained from the individual part by four to estimate the species composition and density in the collection. This is a more accurate method than what is recommended by scientific research (Jaworski et al., 2019; Comparative analysis of subsampling).

Chemical Control
Approach to Adulticide Program

Control measures directed against adult mosquitoes will include spraying by both ground equipment and aircraft. A dual level approach can be considered essential, due to problems presented by residential expansion into prolific mosquito breeding areas and response to emergency situations resulting from severe storms or mosquito borne disease activity. Ground and aerial adulticiding applications will be made during the peak adult mosquito activity period consisting of just prior to dusk to approximately 3 (three) hours after dusk.

The primary means of applying EPA-Approved chemicals from ground level to control adult mosquitoes will be via vehicle mounted ultra-low volume (ULV) sprayers. **Six (6) Vehicles each outfitted with Gas powered Heavy-Duty ULV sprayers** with flow control systems that use speed sensors to adjust the chemical flow rate to the vehicle speed with pre-programmed rates will be used.

Except for ATV's and off-road vehicles, sprayers will be fitted with GPS control devices that will be linked to an onboard, in cab, computer system for operation and data recording. Each spray vehicle will be equipped with a map and tracking system to report time, location, speed and vehicle direction, as well as indicating when the sprayer was actively spraying and when it was not spraying.

Records generated will be available for inspection by the City of Jonesboro during normal business hours. These vehicles will also be outfitted with a communication system, so the driver may contact the Night Supervisor and/or Program Manager. All spray vehicles will be marked for identification.

When directed by the City of Jonesboro, VDCI will provide spray operations for certain holiday celebrations or gatherings to knock down adult populations. The exact area to be sprayed from the ground for control of adult mosquitoes must be determined by the extent and duration of the problem encountered, as indicated by the surveillance phase of this program, and the necessity to reduce the mosquito population to acceptable levels. The Operations Manager will be responsible for scheduling and communicating with the staff assigned to operate the adulticide night trucks. Based on surveillance data and best practices, we will initiate truck-mounted ULV applications 5 to 6 times weekly during the mosquito season, weather permitting and cover a minimum of 5,500 spray miles each mosquito season. All chemical applications will be applied in accordance with the label and thereby the law. The pesticides used will be limited to those approved by Federal Environmental Protection Agency (EPA) and include products such as Permanone 30-30, Mosquito Mist, Anvil and Fyafanon, and in the case of Barrier Treatments; Talstar, Suspend, and Bifenthrin.

VDCI has divided the City of Jonesboro into up to eleven spray treatment zones to optimize coverage and control. These zones have been created so that one truck can spray an entire zone in one night. This is done to improve the efficacy of the spray application; the larger the spray area, the larger the spray cloud, allowing more chemical to impinge on and kill more mosquitoes. When surveillance data shows that multiple zones bordering each other have met the action threshold for adulticide treatment, those zones will be sprayed the same night to increase efficacy of the application.

Ground Spray Reporting

VDCI has been on the forefront in using technology and has developed a proprietary database that is built on the foundations of an IPM program. Our database is for exclusive use in VDCI programs and partner agencies. It allows our users to quickly and effortlessly gain access to assess mosquito surveillance and spray control activities within a given area. This database produces reports that provide both detailed and summary level information for all program activities. An example of an adulticide application report is below:

Droplet and Calibration Testing

ULV truck mounted sprayers will be checked before each use for correct chemical application rate, and recalibrated if necessary. This will be accomplished by pre- and post-product weight comparisons, as well as onboard computer analysis. In addition, a Droplet Spectrum Analysis will be performed routinely during the mosquito season to monitor droplet size generation. The analysis will be performed by an Ames DC-III/ DC-IV unit, a computer driven device developed by the U.S. Army to calculate droplet spectrums rapidly and accurately. All of our adulticide trucks operate using ULV sprayers, which are calibrated and droplet tested routinely to ensure optimal and accurate chemical applications. Only EPA-approved chemicals are dispersed at well below the allowed rate

established by the EPA. Additionally, we conduct annual efficacy testing to monitor the effectiveness of our pesticide products and avoid chemical resistance.

Exclusion Zones

In addition to the previously described factors that guide when and where our adulticide trucks spray, there are a few other considerations for protection of the environment and accommodation of public wishes.

Should any citizen not want to have their property sprayed, we can provide a spray buffer zone where no adulticide chemical will be applied. The request can be made by the property owner for consideration of beehives, organic gardens, protection of pollinators, chemical sensitivity, personal preference, or without any given reason at all.

Exclusion zones are logged into our GPS system which provides night truck drivers visual and audio alerts, as well as physical maps to ensure these areas are addressed or protected. The truck routes are reviewed the following morning to confirm the accuracy and effectiveness of the spray. In the presence of mosquito-borne disease activity, VDCI and of many governmental agencies will notify exclusion sites of their intention to treat the area until the concern of disease transmission has passed.

NPDES Compliance Plan

VDCI has extensive experience dealing with National Pollution Discharge Elimination System Compliance and have written NPDES management plans for each of our programs in Arkansas, and the Gulf South. VDCI intends to use this past plan development experience combined with information from our assessment survey of The City of Jonesboro to update our current Pesticide Discharge Management Plan (PDMP). As with our previous compliance strategies, the Jonesboro plan outlines a best practices approach that establishes action thresholds for pest mosquito trapping levels, disease and vector abundance, and resident requests for service that effectively suppresses the mosquito population while mitigating environmental and non-target impact. VDCI uses a strict adherence to all insecticide label requirements and a product rotation regiment to further governmental compliance. We keep extensive records on all ground and aerial insecticide applications. All records are in compliance with the standards set forth by the EPA Federal guidelines, i.e. Federal Insecticide Fungicide Rodenticide Act (FIFRA) sections 11 and 26(c). All VDCI reports are retained for a minimum of three years and made available to Regulatory Officials upon request.

Special Event Barrier Spraying

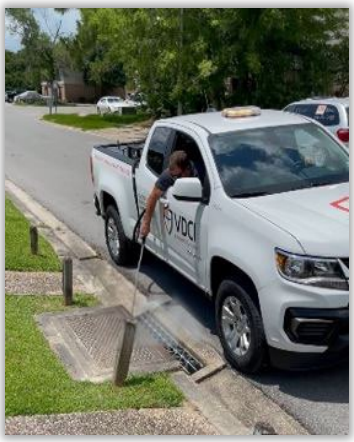
Adult mosquito problems associated with large gatherings of people such as festivals and fairs can be addressed with a technique known as a **Barrier Treatment**. When feasible to use, this method allows us to spray an area with a repellent/insecticide several days prior to the special event when people are not present. We use a specifically designed, truck-mounted, cage blower machine with a Rotary spray nozzle for this purpose. We have tested and used this technique extensively and achieved excellent results. This effort can also be supplemented by using ATV mounted equipment and motorized backpack blowers for those areas that are inaccessible to vehicles.

Woodland and Field Spraying

Woodland and field area can often be large production areas for mosquitoes after heavy rains or seasonal induced flooding. All-terrain vehicles and 4x4 trucks have been modified to larvicide and/or adulticide these areas to help prevent mosquito encroachment into populated areas and to help protect the health and comfort of residents. VDCI will continue to offer this service when surveillance warrants and when reasonable.

Drain and Catch Basin Fogging

Adult mosquitoes often hide-out in difficult to reach sites such in catch-basins, drains and other voids. These inaccessible areas can be addressed with a unique truck mounted machine called a **"Tunnel-Rat".** This highly modified spray unit employs a remote Ultra Low Volume (ULV) nozzle on a four-foot wand to quickly and effectively "Fog" sewer drains and catch basins. These sites are of particular concern since they often harbor the adult Southern House Mosquito, *Cx. quinquefasciatus* other vectors of Encephalitis diseases. VDCI has used this method in several of our programs to aid in reducing vector mosquito numbers. When necessary VDCI send this unit to Jonesboro and use this technique as a supplement to ground based adulticiding in areas of disease activity or high vector populations.



Aerial Capabilities

Vector Disease Control International (VDCI) has 35+ years of experience conducting aerial response mosquito control missions on the ground and in the air across the country and abroad. ***VDCI maintains the largest fleet of aircraft in the world that is dedicated exclusively to mosquito control operations. Treating between 4 and 5 million acres per season, VDCI is the largest aerial applicator in the United States.*** Our team helps communities create an aerial response contingency plan for mosquito control efforts after a hurricane, major flood event, or increased disease activity. The VDCI team has helped countless municipalities through every step of a responsible mosquito control plan. This preparation provides more time for the community to focus on the unexpected and natural results of a disaster that cannot be planned for in advance. Our team assists with local, state, and government coordination as well as assists with other challenging aspects of emergency response mosquito control - such as navigating FEMA funding or preparing for community and media questions. A detailed list of Aerial Resources and Equipment and the specific capabilities of the aircraft and pilots are described in the Certifications, Maintenance, Calibration & Characterization, MicronAir utilization, Pilot Experience & Safety, and Use of Night Vision Goggles section.

AERIAL MOSQUITO CONTROL ACTIVITIES

Chemical control of adult mosquitoes can be used whenever and wherever it is determined that mosquito populations have reached unacceptable levels. Surveillance, source reduction, larviciding, and public education will all be used to reduce the amount, frequency, and areas that adulticides are needed. However, the end result of organized mosquito management is often the application of adulticides. Chemical adulticides should be as safe and as environmentally friendly as possible. Additionally, caution should be used to avoid developing resistance to pesticides in local mosquito populations. VDCI will apply only EPA and Arkansas registered public health pesticides labeled for mosquito control. At times, aerial mosquito control chemical applications have proven to be the most effective way to control mosquito populations. Partnering with VDCI gives the City the ability to quickly request aerial application.

VDCI's aerial adulticide fleet is second to none. Our fixed-wing aircraft are capable of applying any registered adulticide over congested areas as required by the FAA. Our experience and success in mosquito spraying with aircraft is unsurpassed in the industry. VDCI provides the necessary ground support personnel for pesticide handling and loading. All ground support personnel are trained to meet or exceed safety requirements for transferring product(s) in compliance with Federal Environmental Protection Agency (EPA), State and local agencies as well as the ability to proactively contain any challenges associated with product spills.

The exact area to be sprayed from the air for control of adult mosquitoes must be determined by the extent and duration of the problem encountered as indicated by the surveillance phase of this program and the necessity to reduce their population to acceptable levels. As warranted by the mosquito population, VDCI will make eight (8) aerial applications over the City of Jonesboro each mosquito season using twin engine aircraft equipped with Ultra Low Volume Sprayers.

Certifications/Aircraft Make and Model.

VDCI shall utilize FAA approved aircraft, equipped with systems for the dispersal of adulticides over rural and/or congested areas, in fulfilling the terms of the contract. No herbicides have been/will have been applied through any equipment VDCI will utilize for the execution of this contract. VDCI shall provide all labor, equipment, fuel, supplies, insurance, and any other requirements to complete the terms of the contract. The aircraft used within the contract shall be certified by the Federal Aviation Administration (FAA), and comply with all requirements of FAR Part 137, Agricultural Operation. An approved FAA Congested Area Plan will be provided prior to commencement of operations. All logbooks will be made available for review by the City at any time. Copies of daily flight records will also be provided to the City.

Aircraft Maintenance.

VDCI has an accomplished, in-house maintenance staff continually performing routine and emergency maintenance on all our aircraft. All maintenance crewmen are FAA certified IA mechanics. All of our aircraft are in compliance with FAR 137. Prior to the start of the project, as defined by the ordering agency, VDCI will complete all flight tests and approvals required by the FAA and allow for inspection of all aircraft and equipment used in this

project. VDCI will maintain an accurate daily flight record and furnish the Development Management with a copy upon request.

Spray System.

All aircraft used within the contract shall have a spray system able to produce droplets of pesticide within the specifications stated on the label, while applying at a label-approved rate. These leak resistant spray systems are constructed so that all insecticide can be completely drained.

Operation Monitoring and Surveillance.

All aircraft will have the capability to produce a digital GIS map capable of "replaying" the aerial mission as it was flown using the flight recording software. Our GIS Specialist will also graphically display the flight path, spray switch status, air speed, date, time, positional GPS coordinates, meteorological variables, and spray cloud drift prediction data for each application. The AIMMS-20 weather system and Agnav Flightmaster application systems allow us to not only apply the proper amount of product in the proper treatment area, but they also allow us to depict precisely where the product has drifted. Consequently, pesticide application is maximized in the target area and the risk to adjacent, non-target areas is greatly minimized.

Spray System Calibration and Characterization.

VDCI implements an active quality assurance system to ensure that all our work is performed to the highest possible standards of operational safety and efficacy. VDCI has a very stringent policy on maintaining the aircraft and equipment to the highest level. Throughout the season we routinely inspect and calibrate all application equipment. We have an understanding of the NPDES reporting requirements and keep records accordingly.

Support Equipment.

VDCI will be responsible for assisting in the loading and unloading of the aircraft. VDCI shall provide sufficient personnel with capabilities that meet or exceed safety requirements for transferring product(s) in compliance with the US EPA, state, and local agencies as well as the ability to proactively contain any challenges associated with product spills.

Loading personnel will follow all pesticide mixing and loading procedures as directed on the product label and ensure proper use of Personal Protective Equipment (PPE). Prior to operations each day, all connections and fittings will be checked to ensure they are properly secured. Spill kits will be on hand and available for use. All aircraft valves will set in the proper position and ready for loading.

A support truck and trailer will be available for each aerial mission. Equipment included on the support trailer shall include all equipment and supplies required to fully and efficiently allow for the successful loading, and possible clean-up, of all pesticides used during the aerial operation. All empty pesticide containers will be returned to the manufacturer by VDCI.

GPS Navigation System.

Each aircraft will utilize a Sat-Loc or equivalent for GPS navigation during the application flight. Each system will:

a) Be capable of GPS (Global Positioning Satellite) guidance with gridline capabilities. The system shall have an accuracy of zero (0) to ten (10) feet and be used on *all* aerial spray missions.
b) Will process onboard meteorology accurate within less than one (1) knot; a two (2) degree vector and less than one (1) degree in temperature to be used for optimization in real-time and detection of a temperature inversion.

VDCI will have each spray block's report available within 24 (twenty-four) hours of completion, our reports will include:

- Post-spray GPS maps of treated area. Our records will include:
    - Flight direction
    - Spray on and spray off
    - Flight path
    - Offset
    - Wind speed and direction
    - Altitude
    - Air speed of the aircraft
- The volume of pesticide applied (in OZ and or pounds per acre)
- The date and time of application
- The name of the pesticide applied
- Model and tail number of aircraft used for application
- Name of pilot(s) and State licenses number

Aircraft Communication.

VDCI aircraft have Nav/Com radios capable of direct communication to Air Traffic Control (ATC), ground crews, and VDCI control support during every VDCI aerial application mission.

Approach to Larvicide Program

VDCI and its affiliated companies conduct comprehensive and dynamic Integrated Pest Management (IPM) programs that rely on scientific evidence and justification for all chemical applications. This ensures we are acting conscientiously to protect human health and quality of life while minimizing any unnecessary harm to the environment and non-target organisms. Using the mentioned surveillance data, citizen requests, and extensive knowledge of the region we can then implement the following actions to manage mosquitoes in their aquatic, juvenile stages.

VDCI performs random Quality Control field checks of previously inspected and/or treated larval sites. Quality Control inspections will be conducted regularly to ensure technician performance and pesticide efficacy. The Operations Manager or designated Quality Control Technician will also review data sheet entries to verify that sites are being inspected in accordance with site status and that larval control products are being applied according to habitat and water source information. Operational maps will be ground-verified to ensure accuracy and data collection will be screened prior to final submittal, in order to eliminate input error.

The preferred and first line of defense in our program is larviciding. Using predictors such as rainfall, temperature, species seasonality, etc., our inspectors search for and proficiently find breeding habitats. After accessing multiple factors, such as, mosquito life cycle stage, organic composition of the breeding site, and most importantly the ecosystem and non-target organisms which could be impacted by our course of action, we select the most appropriate control method. These methods are described below. VDCI will treat the active and accessible breeding sites within the City limits and up to a half mile outside the City as warranted. Although the exact amount of larviciding will be determined by the mosquito problem encountered in the City of Jonesboro, VDCI will treat a minimum of 20 million square feet of breeding water each mosquito season.

Catch Basin Treatment Approach

Actively breeding catch basins are treated with a 30-day residual granule or briquets during the mosquito season. For each basin that is treated, a GPS point will be recorded via a handheld Garmin or using the VDCI proprietary tablets database.

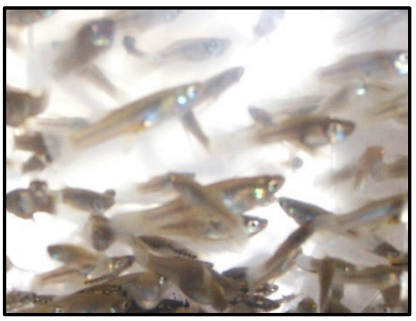
Residual Control Agents Methoprene or Altosid is an insect growth regulator which prevents the larvae of mosquitoes from becoming adults by imitating the insects' natural juvenile hormone.

Methoprene can provide extended control in permanent water, as well as temporary breeding pools and is also low in toxicity to non-target organisms. VDCI plans to utilize Methoprene products in breeding sites, such as catch basins, septic sites and permanent water sites suited to its use.

Biological Control Approach

In environmentally sensitive areas of the City where chemical larvicides may not be the most appropriate method, VDCI can utilize a number of biological control initiatives. They include the following:

Mosquitofish



Mosquitofish, *Gambusia affinis* and *G. holbrooki*, have been used as a biological control agent for over 100 years and remain one of the best biological control agents for mosquitoes. Both species are native to the Southeast and have been introduced throughout 60 countries for mosquito control. Mosquitofish culture is commonly carried out in pond culture in outdoor earthen ponds or commercial aquaculture operations.

Mosquitofish are ideal for controlling mosquitoes especially in drainage ditches, small ponds, and seasonally flooded wetlands. Minnows will be maintained in a custom-built holding/breeding tank for introducing as needed into suitable mosquito breeding sites where they can continue to multiply and affect control without the use of chemicals. .

Bacillus thuringiensis israelensis (Bti) **and** *Bacillus sphaericus*

In areas where the use of mosquitofish is not advisable, but where larviciding is practical, application of naturally occurring bacteria such as *Bacillus thuringiensis israelensis* (*Bti*), *Bacillus sphaericus* (BS H5a5b) may be used. *Bacillus thuringiensis israelensis* (*Bti*) was discovered in 1976 in a riverbed pond in Israel. This grampositive, spore-forming aerobic bacterium produces toxins during sporulation. Once ingested by the mosquito larva, these toxins bind to the midgut (stomach) lining, destroying it and leading to mosquito death within 24 -48 hrs. *Bacillus sphaericus* is very similar to *Bti*, however can provide better residual activity in organically enriched habitats compared to its cousin.

Source Reduction and Physical Control

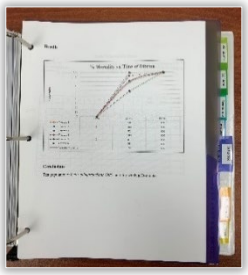
Each Member of the VDCI field staff takes an active role in the education of residents about the reduction of breeding sites surrounding their homes and business while in the field and during inspections. Often our technicians will physically empty or remove containers in addition to making recommendations to residents, In locations that have a municipal tire drop off, our staff will collect small batches of tires and deliver them to these disposal sites. Our managers also work with Public Works Department of municipalities to notify them of mosquito breeding sites caused by such problems as clogged ditches, improper drainage conditions, and broken sewer lines, so that the City may consider repair or other permanent source reduction interventions. Additionally, VDCI inspectors will perform physical control by emptying and/or removing breeding containers, if feasible, when found during encephalitis response inspections.

Efficacy Testing

Efficacy testing will be performed through the use of Caged Adult Mosquito Field Trials and/or pre- and post-spray evaluations of the adult mosquito populations through the use of CDC Traps, Gravid Traps (West Nile Traps), New Jersey Light Traps and/or Landing Rate Counts. Tests can be conducted using laboratory reared or field captured adult mosquitoes subjected to acceptable testing techniques that generate a susceptibility base-line as a reference point for further testing.

These tests may also be performed using the **Center for Disease Control (CDC) Bottle Bioassay Protocol.** Efficacy testing will be conducted one to two times each calendar year on every chemical routinely used in the city to control mosquitoes (early spring, late summer).

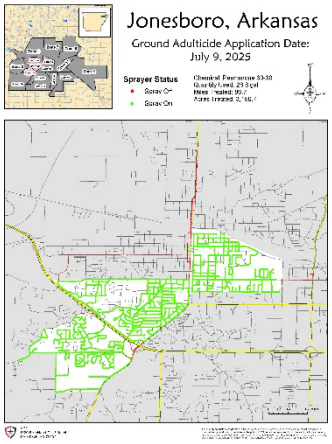
Product Rotation



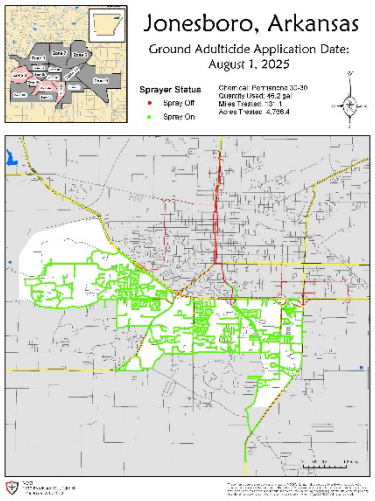
Our insecticide testing program in our state-of-the-art laboratory examines each mosquito control product in our inventory and how well it is working with the local mosquito population. This data is used to guide the rotation of insecticides throughout the year as well as for treatments in response to the detection of encephalitis activity. VDCI will often change adulticiding products in a season to preclude insect tolerance. As part of our virus response procedure, VDCI implements a change from the routine insecticide product to address potential disease transmitting mosquitoes from a different angle.

Application Tracking and Records

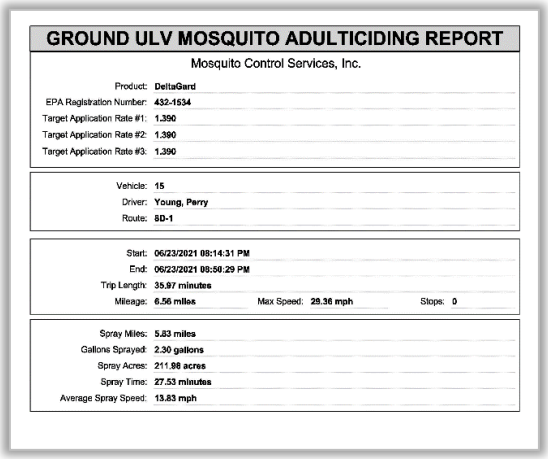
VDCI keeps extensive records on all ground and aerial insecticide applications. All records are in compliance with the standards set forth by the EPA Federal guidelines, i.e. Federal Insecticide Fungicide Rodenticide Act (FIFRA) sections 11 and 26(c). All VDCI reports are retained for a minimum of three years and made available to Regulatory Officials upon request.



Ground Application Records:



Application records are completed by the assigned inspector/applicator and the VDCI self-designed tablet-based spray truck tracking system during treatment. After treatment, the VDCI GPS tracking information is uploaded and databased. These two systematic reports ensure an accurate account for the spray mileage, amount of chemical applied and the exact location of the application.



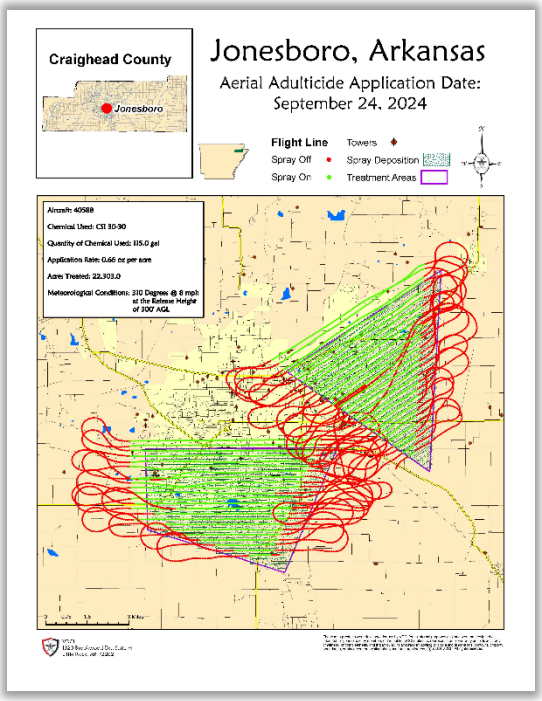
GROUND ULV MOSQUITO ADULTICIDING REPORT

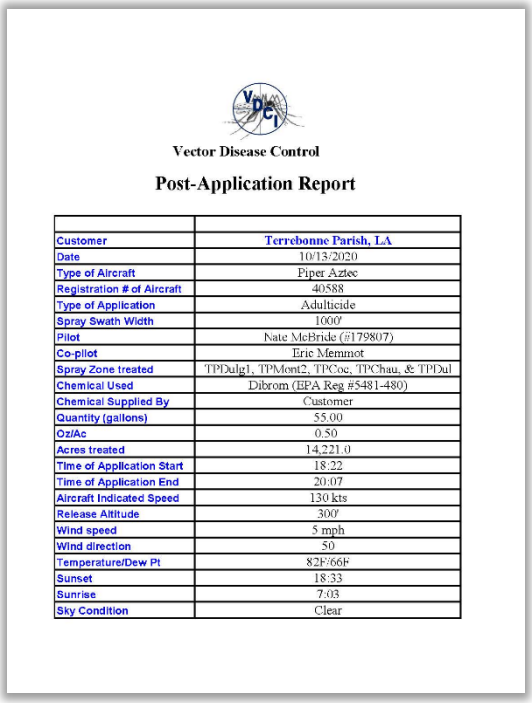
Mosquito Control Services, Inc.

Product:	DeltaGard
EPA Registration Number:	432-1534
Target Application Rate #1:	1.390
Target Application Rate #2:	1.390
Target Application Rate #3:	1.390
Vehicle:	15
Driver:	Young, Perry
Route:	SD-1
Start:	06/23/2021 08:14:31 PM
End:	06/23/2021 09:50:29 PM
Trip Length:	35.97 minutes
Mileage:	6.56 miles
Max Speed:	29.36 mph
Stops:	0
Spray Miles:	5.83 miles
Gallons Sprayed:	2.30 gallons
Spray Acres:	211.86 acres
Spray Time:	27.53 minutes
Average Spray Speed:	13.83 mph

Aerial Application Records

Aerial application records use the Agnav Flightmaster Navigation system integrated with a data management system. Agnav allows for precision applications that incorporates weather and compensates for droplet drift accordingly. The reports are developed after each aerial application and are included as part of our client reports.





Vector Disease Control

Post-Application Report

Customer	Terrebonne Parish, LA
Date	10/13/2020
Type of Aircraft	Piper Aztec
Registration # of Aircraft	40588
Type of Application	Adulticide
Spray Swath Width	1000'
Pilot	Nate McBride (#179807)
Co-pilot	Eric Memmot
Spray Zone treated	TPDulg1, TPMont2, TPCoc, TPChau, & TPDul
Chemical Used	Dibrom (EPA Reg #5481-480)
Chemical Supplied By	Customer
Quantity (gallons)	55.00
Oz/Ac	0.50
Acres treated	14,221.0
Time of Application Start	18:22
Time of Application End	20:07
Aircraft Indicated Speed	130 kts
Release Altitude	300'
Wind speed	5 mph
Wind direction	50
Temperature/Dew Pt	82F/66F
Sunset	18:33
Sunrise	7:03
Sky Condition	Clear

Mosquito Surveillance Reporting

All reports will be submitted in the manner described below:

Monthly Reports:

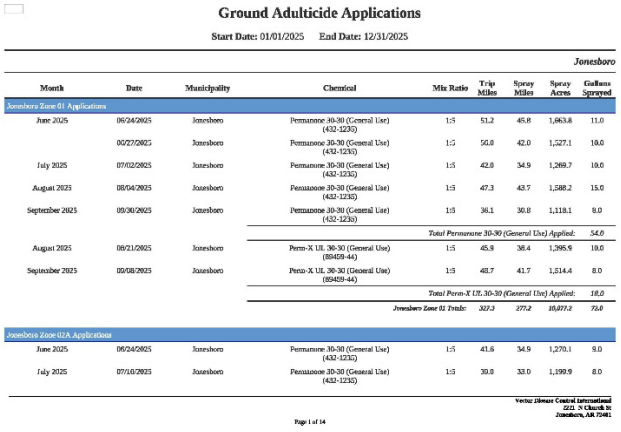
VDCI will submit monthly reports detailing the following abatement activities: Trap data will include location, species and number of females collected for each species, and a comparison to the previous months collection of female adult mosquitoes. Report will include the location, number of trap nights, weekly totals, and average number of mosquitoes.

The monthly activity report will also include information on adulticide and larvicide activities, with month to date and year to date totals, encephalitis monitoring results, light trap/landing rate data, and citizen complaints. Ground adulticiding data will include the areas sprayed, total number of miles treated and/ or acres covered, and name of chemical used. Aerial application data will include the treatment site and the number of acres treated. Larviciding data reported will include the mosquito breeding areas sprayed expressed as square feet of surface water and the name of the biochemical used. Service request/citizen complaint report will show the numbers of each type of request (adulticide, larvicide, Inspections, etc) as well as a list of requests received and their response.

VDCI agrees to present and discuss the monthly activities and reports on a mutually agreed upon schedule as requested by the City of Jonesboro.

Annual Reports:

VDCI will submit an annual report summarizing the conditions, data collected and control operations performed during the year. Some examples of our reports are shown below:



Ground Adulticide Applications

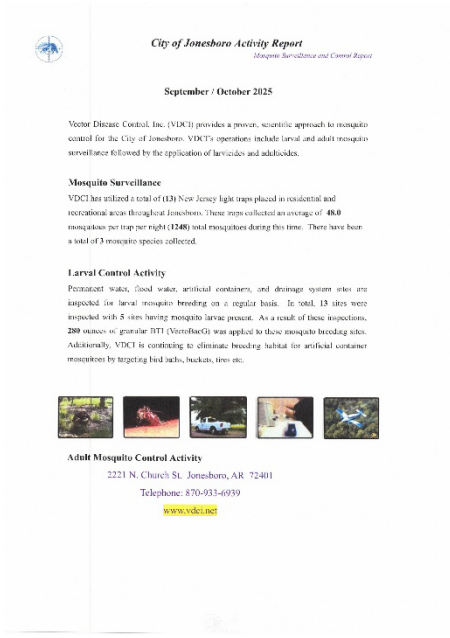
Start Date: 01/01/2025 **End Date:** 12/31/2025

Jonesboro

Month	Date	Municipality	Chemical	Mix Ratio	Trip Miles	Spray Miles	Spray Acres	Gallons Sprayed
Jonesboro Zone 01 Applications								
June 2025	06/24/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	51.2	45.8	1,663.8	11.0
	06/27/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	50.8	42.0	1,527.1	10.0
July 2025	07/02/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	42.8	34.9	1,269.7	10.0
August 2025	08/04/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	47.3	43.7	1,588.2	15.0
September 2025	09/30/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	36.1	30.8	1,118.1	8.0
				Total Permanone 30-30 (General Use) Applied:				*54.0*
August 2025	08/21/2025	Jonesboro	Perm-X UL 30-30 (General Use) (89459-44)	1:5	45.9	38.4	1,395.9	10.0
September 2025	09/08/2025	Jonesboro	Perm-X UL 30-30 (General Use) (89459-44)	1:5	48.7	41.7	1,514.4	8.0
				Total Perm-X UL 30-30 (General Use) Applied:				*18.0*
				Jonesboro Zone 01 Totals:	*327.3*	*277.2*	*10,077.2*	*73.0*
Jonesboro Zone 02A Applications								
June 2025	06/24/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	41.6	34.9	1,270.1	9.0
July 2025	07/10/2025	Jonesboro	Permanone 30-30 (General Use) (432-1236)	1:5	39.8	33.0	1,199.9	8.0

Vector Disease Control International
2221 N Church St
Jonesboro, AR 72401

Page 1 of 14



City of Jonesboro Activity Report

Mosquito Surveillance and Control Report

September / October 2025

Vector Disease Control, Inc. (VDCI) provides a proven, scientific approach to mosquito control for the City of Jonesboro. VDCI's operations include larval and adult mosquito surveillance followed by the application of larvicides and adulticides.

Mosquito Surveillance

VDCI has utilized a total of (13) New Jersey light traps placed in residential and recreational areas throughout Jonesboro. These traps collected an average of **48.0** mosquitoes per trap per night (**1248**) total mosquitoes during this time. There have been a total of 3 mosquito species collected.

Larval Control Activity

Permanent water, flood water, artificial containers, and drainage system sites are inspected for larval mosquito breeding on a regular basis. In total, 13 sites were inspected with 5 sites having mosquito larvae present. As a result of these inspections, **289** ounces of granular BTI (VectoBacG) was applied to these mosquito breeding sites. Additionally, VDCI is continuing to eliminate breeding habitat for artificial container mosquitoes by targeting bird baths, buckets, tires etc.

Adult Mosquito Control Activity

2221 N. Church St. Jonesboro, AR 72401

Telephone: 870-933-6939

www.vdci.net

Public Education

Our program provides a means of informing the public of what it can do to reduce mosquito problems around the home and what is being done for them by Mosquito Control. The program provided herein includes such methods as radio announcements, printed literature, door to door education, and presentations at schools or civic organizations. In an effort to provide high quality outreach, VDCI has employed a Biologist with a Master's in Education to facilitate and oversee our public education program; design lesson plans, develop materials, and train other company biologists to properly conduct presentations.

Many of the mosquito problems encountered within the City of Jonesboro, as elsewhere, are the result of man-made mosquito breeding sites. Often these problems can be corrected with minimal effort by residents simply emptying standing water from flowerpots, boats, rain gutters, trash, etc. This is particularly true in the control of the Southern House Mosquito (*Culex quinquefasciatus)*, an important disease vector, and the Asian Tiger Mosquito (*Aedes albopictus)*, which breeds readily in almost any water holding container. Through the use of several interactive PowerPoint presentations developed by our educational outreach team with the help of a public relations firm, VDCI has been able to effectively convey material to schools, civic associations, network television/radio, and general meetings. VDCI utilizes several group specific presentations to increase public awareness of mosquitoes, their breeding sites, and the diseases they transmit. At the request of the City of Jonesboro, VDCI will conduct presentations at fairs, festivals, civic groups, public/private schools, and homeowners' associations.

VDCI presentations utilize foam masks. The idea is to turn the students into mosquitoes by helping them get into "character" and send them off to find mosquito breeding sites on their family and relative's properties. Hopefully, they will recruit their friends and family to help, educating them in the process!

Agricultural, Town Hall and other Industry meetings may also be attended by a VDCI biologist and/or other mosquito control industry experts. Techniques, product, and equipment options can be discussed to help teach farmers and landowners ways of controlling mosquitoes on their property.

Standard Materials at Community Events Include:

- Printed literature
- Poster boards with information about the mosquito lifecycle, potential breeding habitats, public health concerns, proactive personal protection measures, descriptions of Mosquito Control activities, and resources available for more information
- Live mosquito larvae in emergence chambers educate not only adults, but importantly children, on how to identify breeding habitats in their community to reinforce concepts such as "Tip n Toss"
- Microscopes for observation of adult mosquitoes under slides caught in our local traps
- Mosquito mask decorating for the kids, so we can engage them in a fun way while sharing information like proper insect repellant applications and also letting parents know when and how Mosquito Control can be reached for service requests, etc.

Standard Materials at Presentations Include:

Printed literature.

Tailored PowerPoint Presentations and posterboards specific to the age/organization demographics.

- Biology and ecosystem workbooks with rotating interactive stations for mask decorating, live bugs in emergence chambers for lessons on identification, an outdoor scavenger hunt to identify and dump out common breeding containers.
- Surveillance traps, larvicide equipment, and spray truck demonstrations.

VDCI also prepares, on an as-needed basis, press releases, flyers and other written public information materials to be disseminated via distribution to media, civic associations, schools and/or inserts in City water bills. Cost of printing and postage will be covered by City.

We shall also prepare Public Service Announcements and/or represent the City of Jonesboro's mosquito control program on radio/television broadcasts and contract the use of commercial radio. We shall produce and record 30-second and/or 60-second radio "spots" informing the public of such things as avoidance of mosquito borne viruses, elimination of mosquito breeding on their property and/or other mosquito related announcements. These spots are aired in July and/or August over commercial radio stations transmitting across the area.

iHeart RADIO

(Gnats- ominous-attention getting music)

The threat is real- Mosquitoes can carry Zika or West Nile virus…

Don't harbor this enemy! - Remove standing water from around your home…especially after every rain and wear repellent and cover up at dusk and dawn.

Website and Social Media

VDCI has redesigned their website to provide an abundance of information to the residents of the municipalities that we serve. Beyond the explanation of the services that we offer, the site provides the ability for residents to enter service/information requests and link to educational materials or recent blog/social media materials. VDCI can link their social media/blog entries to City's Facebook and other media outlets where reminders of residential mosquito abatement and personal protective techniques, contact information, encephalitis alerts, aerial activities, and mosquito education can be released.

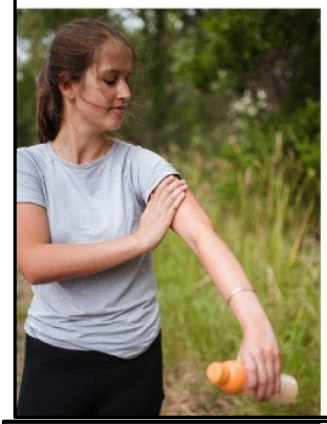
The VDCI Website provides information on all mosquito abatement activities and includes a form to request information or service for the residents.

New content is always being supplied to our blog which can be pushed to Jonesboro's Facebook and other social media outlets.

It is important to educate and inform the residents of the City's efforts to help protect them and make their quality of life better.

Each year, more than a million people, pets, and wildlife are affected by mosquito-borne diseases, including West Nile, Zika, Dengue, Yellow Fever, and Malaria. This is why effective mosquito management is so crucial to helping protect the health of our communities.

Public participation is an important component of any successful mosquito management program. Every member of a community can do their part to help limit the spread of disease by protecting themselves and removing mosquito habitats on their property.



At VDCI, Education is Part of Our Promise to Protect Public Health

Public education is a key element in the fight against deadly mosquitoes. VDCI is committed to providing information and resources that support community mosquito management efforts and empower individuals to exercise preventative measures.

We're committed to protecting public health through excellence in vector control.

VDCI
A Rentokil Company

800.413.4445 | vdci.net

VDCI
A Rentokil Company

4 Tips
to Protect Yourself from Mosquito-Borne Diseases

Remember the 4 "Ds" to Help Reduce Bites and Breeding

Preventing the transmission of mosquito-borne diseases starts with the basics:

Larvicide and adulticide treatments require rigorous execution to ensure applications are safe and effective. All application efforts are unique and rely on customized strategies to meet the desired objectives.

1. DEFEND

Protect yourself by using an EPA-approved repellent.

- For the safe and effective use of any product, always read the label and follow manufacturer guidelines.
- Repellents containing 10-30% DEET (N,N Diethyl-meta-toluamide) are highly safe and the most effective.
- Protect pets with preventative heartworm medication.

To find the product that's right for you, visit: www.epa.gov/insect-repellents/find-repellent-right-you

2. DRESS

Wear light-colored clothing, closed toe shoes, long sleeves, and long pants when spending time outside.

- Light colors are less attractive to mosquitoes than dark.
- Loose-fitting clothes make it more difficult for them to bite you.
- Bare skin on hands, ankles, or face should be protected with repellent or covered when possible.

3. DRAIN

Mosquitoes need water to complete their life cycle and even something as small as a bottle cap can hold dozens of mosquito larvae.

- Empty or cover all containers that can hold water for more than three days, such as tires, birdbaths, flowerpots, children's toys, abandoned pools, tarps, boats, and many other outdoor items.
- Restore drainage in gutters, cover rain barrels, fill in low-lying ground or unnecessary ditches, fix stormwater pipes, and other outdoor structures.

4. DUSK & DAWN

Stay indoors during these times of day when mosquitoes are most active. Do not let pets out within these timeframes.

- Most mosquito species are susceptible to dehydration when in direct sunlight.
- During daylight times, mosquitoes often seek refuge in cool, sheltered places like bushes, thick weeds, and hollow logs.

Understand Existing Mosquito Management Efforts in Your Community

Supporting Local IMM Programs

Do you know if your community has an established IMM program? There are many strong Integrated Mosquito Management (IMM) programs across the United States!

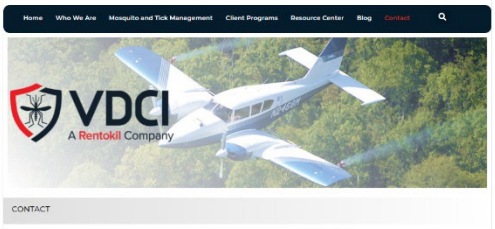
Check with your local government to learn more about the efforts taking place in your community and see what you can do to support them. Program managers can provide information about local mosquito species and any diseases that may have been identified in your area.

800.413.4445 | vdci.net

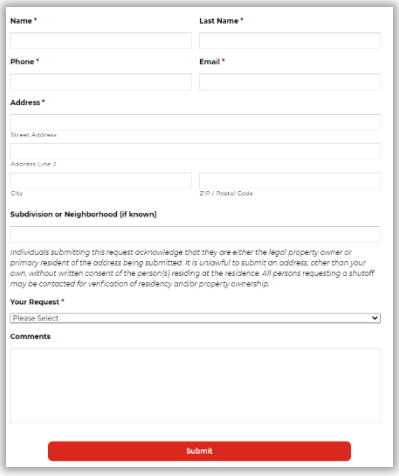
VDCI
A Rentokil Company

- VDCI will maintain a toll-free Mosquito Hotline telephone number, that will accept residents' phone calls regarding mosquito annoyance complaints, service requests and information requests.
- VDCI will respond appropriately to all calls within 24-hours and will provide information, educational materials or on-site inspections on a case-by-case basis.
- VDCI will work with local news media regarding the mosquito control program and general mosquito and vector control issues, as approved by the City. VDCI will advertise our MosquitoLine "Hot-Line" number when requested by the City of Jonesboro.

Intake & Response to Service Questions/Complaints



The VDCI companies employ many different methods to provide great customer service to the residents of the City of Joneboro. The first approach is to provide a friendly, informative response to resident inquiries and requests for service. ***Residents are able to communicate with us through a local phone number, a dedicated 1-800 number, by email, or through our easy-to-use website.***



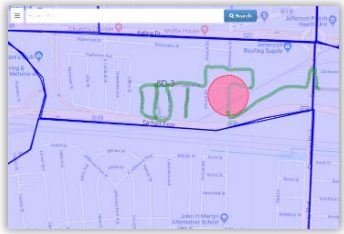
The VDCI companies are proud to have reduced the burden to the City by receiving and responding to the resident's needs. Through our experience in Arkansas and the Gulf Coast, ***we have implemented a system to allow administrative staff from neighboring programs to help respond to high volumes of requests. This is particularly helpful after natural disasters such as hurricanes and large rain events.*** Local Areas with trained administrators are Jonesboro, West Memphis, Mcghee, Blytheville and Little Rock.

All complaints are tracked and data-based recording the nature of the complaint, our response, and a map of the problem location. Additionally, a list of complaints can be provided as part of the weekly or monthly reports submitted to the City.

Because of our convenient and responsive service, it is not uncommon for residents to make requests more frequently. These residents help the program by providing feedback and alerting us to potential problems.

Handling "No-Spray" Requests and Designated Areas

VDCI also takes the necessary precautions to protect the interests of the residents with possible exclusion areas for beekeepers, chemically sensitive persons, organic gardens, and personal preference for no spray. Before entering a sensitive area, these individuals are personally contacted before spraying. We are also active in beekeeper meetings as well as updating our records annually by personally contacting our previous year registered hive owners to ensure information is up to date and accurate. ***VDCI employs a tablet-based control system for the ULV application equipment that will automatically shut off in geofenced exclusion zones.***



Screenshot of Truck Spray Tracking with No-Spray Geofence.

Prompt Service

Multiple times each week, Inspectors will visit sampling traps positioned throughout the City. The collections are returned to our office laboratory where they are identified to species, counted and evaluated with respect to pest/vector potential. Thus, we have information updated in real-time on the mosquito population in terms of species and number per location. This data along with Landing Rate Counts taken at each trap is evaluated and a decision made as to the level of response and type of response required to combat the problem. In addition, portable Gravid (West Nile) Traps and CDC traps are positioned in various sites to monitor the vector population. All of this information along with telephone requests for additional service allows VDCI to promptly respond to a mosquito problem. Please note that a telephone request for additional service is handled in a manner that responds to a specific problem because not all complaints are solved by simply assigning a spray-truck to the area. It is often necessary to dispatch an Inspector to the site to resolve certain difficulties. Such a response ensures customer satisfaction, and we have often been told by City representatives that they appreciate our prompt attention to mosquito problems.

VDCI's Response to Extreme Mosquito Populations and Disease Outbreaks

Mosquitoes are important pest and potential disease vectors throughout the State of Arkansas. The awareness of vector-borne disease outbreaks throughout the state has established a need for routine monitoring and control of the mosquito population to protect the public. Currently, there are 60+ species and subspecies of mosquitoes in Arkansas. Some of these species have been

introduced in the last twenty years. Consistent mosquito surveillance remains paramount for early population and disease detection in order to effective employ mosquito abatement measures.

The VDCI team has helped countless municipalities through every step of a responsible mosquito control plan. This preparation provides more time for the community to focus on the unexpected and natural results of a disaster that cannot be planned for in advance. Our team assists with local, state, and government coordination as well as assists with other challenging aspects of emergency response mosquito control - such as navigating FEMA funding or preparing for community and media questions. VDCI has a long history of conducting emergency aerial and ground applications in response to disease outbreaks or natural disasters. Below is a summary of acres treated in natural disaster situations.

Year	Acres Treated	State	Event
2023	~1 Millon	CA	Emergency Flooding
2022	~1.1 Millon	FL	Hurricane Ian
2021	~1.6 Million	LA	Hurricane Ida
2020	~2 Million	LA	Hurricane Laura & Delta
2018	~1 Million	NC	Hurricane Florence
2018	~.6 Million	FL	Hurricane Michael
2017	~2 Million	FL	Hurricane Irma
2017	~2 Million	TX	Hurricane Harvey
2014	~.5 Million	TX	West Nile Virus Outbreak
2012	~1 Million	FL	Tropical Storm Debby
2012	~.5 Million	LA	Hurricane Isaac
2011	~.5 Million	NC/PA	Hurricane Irene
2008	~2 Million	Multiple	Hurricane Ike
2008	~1.5 Million	Multiple	Hurricane Gustav
2005	~2 Million	Multiple	Hurricane Katrina
2005	~1 Million	Multiple	Hurricane Rita
2004	~5 Million	FL	Multiple Hurricanes

Mosquito Borne Virus Response

VDCI will activate our expanded disease protocol upon notification of a human mosquito borne disease case within the City of Jonesboro, a domestic animal case (horse/donkey/emu), a positive mosquito sample or a sentinel chicken positive for viral antibodies. We will notify the City immediately and, upon authorization from the City, shall enact a viral transmission suppression plan. Every disease case is unique and depending on whether the virus is endemic or exotic will require specific procedures, however the basic protocol will be as follows. The vicinity of a human

case, trapping site, or animal, or chicken coop location will serve as the epicenter from which inspection, sampling, and control efforts will radiate.
Personnel will be assigned to inspect the immediate area surrounding the epicenter and to continue outward for an approximate one to five city block area depending upon the geographic location, the topography, and the surrounding conditions. The purpose of the search will be to locate vector mosquito (*Culex quinquefasciatus*, the Southern House Mosquito, *Aedes aegypti*, the Yellow Fever Mosquito and/or *Aedes albopictus*, the Asian Tiger) breeding sites. Source reduction will be performed by dumping out water from any containers. If water cannot be eliminated, then water with larvae or standing water that can allow breeding will be treated with larvicide or by releasing mosquito fish. While the exact address of the infected person, trapping site, or animal location will not be divulged, residents in the area will be made aware that there is a heightened potential for infection in their neighborhood, and that personal protection and yard sanitation is required. This will be done by distributing door hangers or other informative literature within an approximate five city block radius of the epicenter. During the evening hours, truck mounted sprayers will be assigned to spray the area radiating from the epicenter in an effort to reduce the vector population below the critical level as noted in the expanded surveillance portion this proposal. The efficacy of this operation will be determined using Gravid Traps and/or other suitable trapping methods. Specimens collected will be submitted to a Animal Disease Diagnostic Lab and/or tested in-house. Elevated control efforts will continue until follow-up samples test negative and vector mosquitoes are below threshold population levels.

Licensing

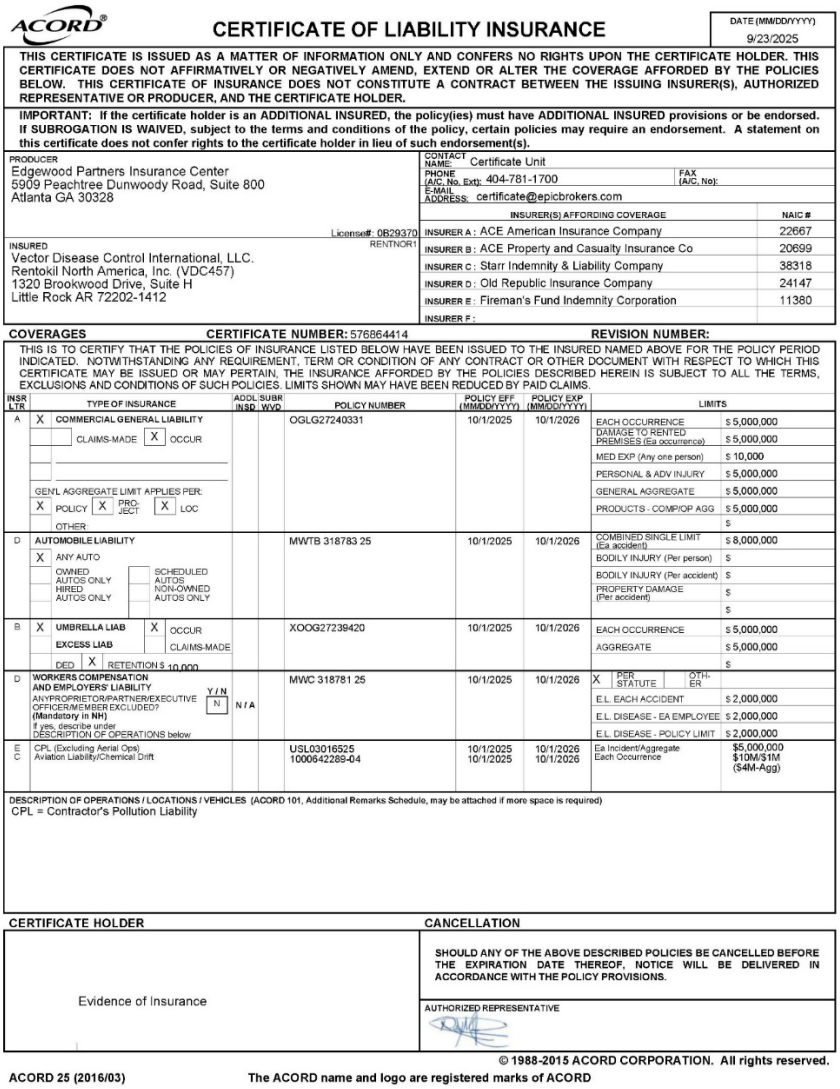
VDCI shall at all times during the term of this agreement maintain all such necessary state and/or federal licenses and/or permits required for the storage and/or use and/or application of pesticides and/or other chemicals and/or substances regulated by any agency of the state and/or federal government.

INSURANCE

VDCI shall provide the following types of insurance within the limits specified below during the contract period.

Workers Compensation	Statutory
Employer's Liability	$1,000,000
Automobile Liability and	
Bodily Injury and Property Damage Combined	$1,000,000 each occurrence
Excess Auto and Employer's Liability	**$5,000,000**
Commercial General Liability	**$5,000,000**

Contractor's Pollution	**$5,000,000**
Aviation Liability	**$10,000,000**



ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): 9/23/2025

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
Edgewood Partners Insurance Center
5909 Peachtree Dunwoody Road, Suite 800
Atlanta GA 30328
License#: 0B29370

CONTACT NAME: Certificate Unit
PHONE (A/C, No, Ext): 404-781-1700 FAX (A/C, No):
E-MAIL ADDRESS: certificate@epicbrokers.com

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : ACE American Insurance Company	22667
INSURER B : ACE Property and Casualty Insurance Co	20699
INSURER C : Starr Indemnity & Liability Company	38318
INSURER D : Old Republic Insurance Company	24147
INSURER E : Fireman's Fund Indemnity Corporation	11380
INSURER F :	

INSURED
Vector Disease Control International, LLC.
Rentokil North America, Inc. (VDC457)
1320 Brookwood Drive, Suite H
Little Rock AR 72202-1412
RENTNOR1

COVERAGES **CERTIFICATE NUMBER:** 576864414 **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	X COMMERCIAL GENERAL LIABILITY			OGLG27240331	10/1/2025	10/1/2026	EACH OCCURRENCE	$ 5,000,000
	CLAIMS-MADE X OCCUR						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ 5,000,000
							MED EXP (Any one person)	$ 10,000
							PERSONAL & ADV INJURY	$ 5,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 5,000,000
	X POLICY X PRO-JECT X LOC						PRODUCTS - COMP/OP AGG	$ 5,000,000
	OTHER:							$
D	AUTOMOBILE LIABILITY			MWTB 318783 25	10/1/2025	10/1/2026	COMBINED SINGLE LIMIT (Ea accident)	$ 8,000,000
	X ANY AUTO						BODILY INJURY (Per person)	$
	OWNED AUTOS ONLY / SCHEDULED AUTOS						BODILY INJURY (Per accident)	$
	HIRED AUTOS ONLY / NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	$
								$
B	X UMBRELLA LIAB X OCCUR			XOOG27239420	10/1/2025	10/1/2026	EACH OCCURRENCE	$ 5,000,000
	EXCESS LIAB CLAIMS-MADE						AGGREGATE	$ 5,000,000
	DED X RETENTION $ 10,000							$
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N			MWC 318781 25	10/1/2025	10/1/2026	X PER STATUTE / OTH-ER	
	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? N	N / A					E.L. EACH ACCIDENT	$ 2,000,000
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 2,000,000
							E.L. DISEASE - POLICY LIMIT	$ 2,000,000
E C	CPL (Excluding Aerial Ops) Aviation Liability/Chemical Drift			USL03016525 1000642289-04	10/1/2025 10/1/2025	10/1/2026 10/1/2026	Ea Incident/Aggregate Each Occurrence	$5,000,000 $10M/$1M ($4M-Agg)

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)
CPL = Contractor's Pollution Liability

CERTIFICATE HOLDER

Evidence of Insurance

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03) The ACORD name and logo are registered marks of ACORD

COMPENSATION FOR SERVICES

- VDCI shall provide the services described under this agreement for the annual fee defined in the table below subject to such adjustments as specified in this agreement. This amount shall be paid to VDCI in twelve equal monthly installments for the first Contract Year period. Following the completion of the first year of services, the monthly payment shall increase or decrease pursuant to fluctuations in the Consumer Price Index (CPI) as noted below and any other adjustments. VDCI shall submit to the City of Jonesboro a monthly statement for its services for the previous month together with any adjustments. Statements

shall be mailed and/or delivered to the City by the end of each month and shall be payable by the City within 15 days after month end.

• **Full Service Integrated Mosquito Management Program with the Additional of Routine Aerial Based Adulticide Applications**
Program Establishment and Administration
GIS/GPS Mapping
Database Development, Management, and NPDES Reporting
Larval Mosquito Surveillance Daily Inspections of all Habitat types with GIS Mapping
Adult Mosquito Surveillance CDC Miniature Light Traps New Jersey Light Traps Gravid Traps Landing Rate Counts
Disease Monitoring Routine West Nile Virus Testing of Mosquito Samples
Larval Mosquito Control Source Reduction Granular and Liquid Applications Biological Control
Service Requests from the Public Receiving and Responding to Nuisance Mosquito Problems
Public Education Develop Presentations, Radio Ads, and Fact Sheets for Residents
Adult Ground Mosquito Control ATV ULV Applications Truck ULV Applications covering 5,500 miles per year
Adult Aerial Mosquito Control Aircraft Based ULV Treatments- 8 per season included Additional treatments can be made per acre
TOTAL ANNUAL PROGRAM COST $479,127

Itemized Costs of Specific Services within the Annual Program Cost

- **Aerial applications** **S 169,400**
- **Ground-based adulticiding and larviciding** **$ 264,600**
- **Special event coverage** **included**
- **Emergency or public-requested applications** **included**
- **Other Services (Surveillance, Efficacy Testing, GIS Mapping/ Database, Public Education etc)** **$ 45,127**

- **Treatment of high-risk areas in the city, including rice fields south of city limits- Aerial Application in addition to the amount included in the costs and proposal above (per application)** **$ 19,925**

The monthly installment amount for the second and subsequent Contract Years shall be adjusted upward or downward at the beginning of said years to reflect changes in the cost of doing business during the previous year as measured by the fluctuations during the previous Contract Year by the Consumer Price Index (CPI), U.S. City Average, "All Urban Consumers," published by the U.S. Department of Labor, Bureau of Labor Statistics. The monthly installment shall increase or decrease by a percentage amount equal to the twelve-month percent change in the CPI for the month prior to the contract anniversary date or five percent (5%) whichever is less. In the event that the federal government phases out the CPI, a substitute index that reflects the described fluctuations in the cost of doing business will be used provided it is acceptable by both parties. VDCI shall make the computation required and provide a copy of its computation. However, the failure to include the recomputed monthly installment or to correctly re-compute the monthly installment amount shall not constitute a waiver of the amount owed to VDCI and VDCI shall always have the right to demand full payment for its services.

TERM OF CONTRACT

It is proposed that a professional service contract as agreed upon be in effect for a three (3) year period commencing on a notice to proceed issued by the city for the term Jan 1, 2026 to Dec. 31, 2029. At the end of this initial period, the contract may be extended in its current form or altered as agreed by both the City and VDCI; for additional periods of three (3) years.

Summary

This proposal is offered to the City of Jonesboro for consideration as the framework for a professional service contract. We agree to abide by all specifications outlined in the RFP- 2026-11 Mosquito Management Services. Our proposal is not intended to be restrictive in any manner and is subject to alteration in drafting a final agreement. We appreciate the interest in our company's services and welcome the opportunity to continue to be of service to the residents of the City of Jonesboro.

Respectfully submitted,

Steven G. Pavlovich
Entomologist
Director of Field Operations
Vector Disease Control International