

**ADAMS COUNTY
PROFESSIONAL SERVICE AGREEMENT
FOR MOSQUITO CONTROL SERVICES**

THIS AGREEMENT ("Agreement") is made this 11 day of JUN 2019, by and between the Adams County Board of County Commissioners, located at 4430 South Adams County Parkway, Brighton, Colorado 80601, hereinafter referred to as the "County," and Vector Disease Control International, LLC, located at 7000 Broadway Suite 108, Denver, Colorado 80221, hereinafter referred to as the "Contractor." The County and the Contractor may be collectively referred to herein as the "Parties."

The County and the Contractor, for the consideration herein set forth, agree as follows:

1. SERVICES OF THE CONTRACTOR:

- 1.1. All work shall be in accordance with the attached IFB-SPH-2019.602 and the Contractor's response to the IFB-SPH-2019.602 attached hereto as Exhibit A, and incorporated herein by reference. Should there be any discrepancy between Exhibit A and this Agreement the terms and conditions of this Agreement shall prevail.
- 1.2. Emergency Services: In the event the Adams County Board of County Commissioners declares an emergency, the County may request additional services (of the type described in this Agreement or otherwise within the expertise of the Contractor) to be performed by the Contractor. If the County requests such additional services, the Contractor shall provide such services in a timely fashion given the nature of the emergency, pursuant to the terms of this Agreement. Unless otherwise agreed to in writing by the parties, the Contractor shall bill for such services at the rates provided for in this Agreement.

2. RESPONSIBILITIES OF THE COUNTY: The County shall provide information as necessary or requested by the Contractor to enable the Contractor's performance under this Agreement.

3. TERM:

- 3.1. Term of Agreement: The Term of this Agreement shall be for three years from June 4, 2019 through June 3, 2022.
- 3.2. Renewal Option: The County, at its sole option, may offer to renew this Agreement as necessary for up to one, two-year renewal providing satisfactory service is given and all terms and conditions of this Agreement have been fulfilled. Such renewals must be mutually agreed upon in writing by the County and the Contractor.

4. PAYMENT AND FEE SCHEDULE: The County shall pay the Contractor for services furnished under this Agreement, and the Contractor shall accept payment following the below schedule, a contract total of \$691,137.00:

Year One - \$225,832.00, Year Two - \$230,349.00, Year Three - \$234,956.00

- 4.1. Payment pursuant to this Agreement, whether in full or in part, is subject to and contingent upon the continuing availability of County funds for the purposes hereof. In the event that funds become unavailable, as determined by the County, the County may immediately terminate this Agreement or amend it accordingly.
5. **INDEPENDENT CONTRACTOR:** In providing services under this Agreement, the Contractor acts as an independent contractor and not as an employee of the County. The Contractor shall be solely and entirely responsible for his/her acts and the acts of his/her employees, agents, servants, and subcontractors during the term and performance of this Agreement. No employee, agent, servant, or subcontractor of the Contractor shall be deemed to be an employee, agent, or servant of the County because of the performance of any services or work under this Agreement. The Contractor, at its expense, shall procure and maintain workers' compensation insurance as required by law. **Pursuant to the Workers' Compensation Act § 8-40-202(2)(b)(IV), C.R.S., as amended, the Contractor understands that it and its employees and servants are not entitled to workers' compensation benefits from the County. The Contractor further understands that it is solely obligated for the payment of federal and state income tax on any moneys earned pursuant to this Agreement.**
6. **NONDISCRIMINATION:**
- 6.1. **The Contractor shall not discriminate against any employee or qualified applicant for employment because of age, race, color, religion, marital status, disability, sex, or national origin. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices provided by the local public agency setting forth the provisions of this nondiscrimination clause. Adams County is an equal opportunity employer.**
- 6.1.1. The Contractor will cause the foregoing provisions to be inserted in all subcontracts for any work covered by this Agreement so that such provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.
7. **INDEMNIFICATION:** The Contractor agrees to indemnify and hold harmless the County, its officers, agents, and employees for, from, and against any and all claims, suits, expenses, damages, or other liabilities, including reasonable attorney fees and court costs, arising out of damage or injury to persons, entities, or property, caused or sustained by any person(s) as a result of the Contractor's performance or failure to perform pursuant to the terms of this Agreement or as a result of any subcontractors' performance or failure to perform pursuant to the terms of this Agreement.
8. **INSURANCE:** The Contractor agrees to maintain insurance of the following types and amounts:

- 8.1. Commercial General Liability Insurance: to include products liability, completed operations, contractual, broad form property damage and personal injury.
- 8.1.1. Each Occurrence: \$1,000,000
- 8.1.2. General Aggregate: \$2,000,000
- 8.2. Comprehensive Automobile Liability Insurance: to include all motor vehicles owned, hired, leased, or borrowed.
- 8.2.1. Bodily Injury/Property Damage: \$1,000,000 (each accident)
- 8.2.2. Personal Injury Protection: Per Colorado Statutes
- 8.3. Workers' Compensation Insurance: Per Colorado Statutes
- 8.4. Professional Liability Insurance: to include coverage for damages or claims for damages arising out of the rendering, or failure to render, any professional services, as applicable.
- 8.4.1. Each Occurrence: \$1,000,000
- 8.4.2. This insurance requirement applies only to the Contractors who are performing services under this Agreement as professionals licensed under the laws of the State of Colorado, such as physicians, lawyers, engineers, nurses, mental health providers, and any other licensed professionals.
- 8.5. Adams County as "Additional Insured": The Contractor's commercial general liability, and comprehensive automobile liability, insurance policies and/or certificates of insurance shall be issued to include Adams County as an "additional insured" and shall include the following provisions:
- 8.5.1. Underwriters shall have no right of recovery or subrogation against the County, it being the intent of the parties that the insurance policies so affected shall protect both parties and be primary coverage for any and all losses resulting from the actions or negligence of the Contractor.
- 8.5.2. The insurance companies issuing the policy or policies shall have no recourse against the County for payment of any premiums due or for any assessments under any form of any policy.
- 8.5.3. Any and all deductibles contained in any insurance policy shall be assumed by and at the sole risk of the Contractor.
- 8.6. Licensed Insurers: All insurers of the Contractor must be licensed or approved to do business in the State of Colorado. Upon failure of the Contractor to furnish, deliver and/or maintain such insurance as provided herein, this Agreement, at the election of the County, may be immediately declared suspended, discontinued, or terminated. Failure of the Contractor in obtaining and/or maintaining any required insurance shall not relieve the Contractor from

any liability under this Agreement, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification.

- 8.7. Endorsement: Each insurance policy herein required shall be endorsed to state that coverage shall not be suspended, voided, or canceled without thirty (30) days prior written notice by certified mail, return receipt requested, to the County.
- 8.8. Proof of Insurance: At any time during the term of this Agreement, the County may require the Contractor to provide proof of the insurance coverage or policies required under this Agreement.

9. DAMAGES ARISING FROM BREACH OF PERFORMANCE OBLIGATIONS

- 9.1. Notwithstanding anything else set forth in this Agreement, if Contractor fails to comply with all terms of this contract, including but not limited to, its obligation to perform its work in a workmanlike manner in accordance with all codes, plans, specifications and industry standards, Contractor shall be liable to County for all damages arising from the breach, including but not limited to, all attorney fees, costs and other damages.

10. WARRANTY:

- 10.1. The Contractor warrants and guarantees to the County that all work, equipment, and materials furnished under the Agreement are free from defects in workmanship and materials for a period of one year after final acceptance by the County. The Contractor further warrants and guarantees that the plans and specifications incorporated herein are free of fault and defect sufficient for Contractor to warrant the finished product after completion date. Should the Contractor fail to proceed promptly in accordance with this guarantee, the County may have such work performed at the expense of the Contractor. This section does not relieve the Contractor from liability for defects that become known after one year.

11. TERMINATION:

- 11.1. For Cause: If, through any cause, the Contractor fails to fulfill its obligations under this Agreement in a timely and proper manner, or if the Contractor violates any of the covenants, conditions, or stipulations of this Agreement, the County shall thereupon have the right to immediately terminate this Agreement, upon giving written notice to the Contractor of such termination and specifying the effective date thereof.
- 11.2. For Convenience: The County may terminate this Agreement at any time by giving written notice as specified herein to the other party, which notice shall be given at least thirty (30) days prior to the effective date of the termination. If this Agreement is terminated by the County, the Contractor will be paid an amount that bears the same ratio to the total compensation as the services actually performed bear to the total services the Contractor was to perform under this

Agreement, less payments previously made to the Contractor under this Agreement.

12. MUTUAL UNDERSTANDINGS:

- 12.1. Jurisdiction and Venue: The laws of the State of Colorado shall govern as to the interpretation, validity, and effect of this Agreement. The parties agree that jurisdiction and venue for any disputes arising under this Agreement shall be with Adams County, Colorado.
- 12.2. Compliance with Laws: During the performance of this Agreement, the Contractor agrees to strictly adhere to all applicable federal, state, and local laws, rules and regulations, including all licensing and permit requirements. The parties hereto aver that they are familiar with § 18-8-301, et seq., C.R.S. (Bribery and Corrupt Influences), as amended, and § 18-8-401, et seq., C.R.S. (Abuse of Public Office), as amended, , the Clean Air Act (42 U.S.C. 7401-7671q), and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended, and that no violation of such provisions are present. The Contractor warrants that it is in compliance with the residency requirements in §§ 8-17.5-101, et seq., C.R.S. Without limiting the generality of the foregoing, the Contractor expressly agrees to comply with the privacy and security requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).
- 12.3. OSHA: The Contractor shall comply with the requirements of the Occupational Safety and Health Act (OSHA) and shall review and comply with the County's safety regulations while on any County property. Failure to comply with any applicable federal, state or local law, rule, or regulation shall give the County the right to terminate this agreement for cause.
- 12.4. Record Retention: The Contractor shall maintain records and documentation of the services provided under this Agreement, including fiscal records, and shall retain the records for a period of three (3) years from the date this Agreement is terminated. Said records and documents shall be subject at all reasonable times to inspection, review, or audit by authorized Federal, State, or County personnel.
- 12.5. Assignability: Neither this Agreement, nor any rights hereunder, in whole or in part, shall be assignable or otherwise transferable by the Contractor without the prior written consent of the County.
- 12.6. Waiver: Waiver of strict performance or the breach of any provision of this Agreement shall not be deemed a waiver, nor shall it prejudice the waiving party's right to require strict performance of the same provision, or any other provision in the future, unless such waiver has rendered future performance commercially impossible.
- 12.7. Force Majeure: Neither party shall be liable for any delay or failure to perform its obligations hereunder to the extent that such delay or failure is caused by a force or event beyond the control of such party including, without limitation, war,

embargoes, strikes, governmental restrictions, riots, fires, floods, earthquakes, or other acts of God.

12.8. Notice: Any notices given under this Agreement are deemed to have been received and to be effective:

1) Three (3) days after the same shall have been mailed by certified mail, return receipt requested;

2) Immediately upon hand delivery; or

3) Immediately upon receipt of confirmation that an E-mail was received. For the purposes of this Agreement, any and all notices shall be addressed to the contacts listed below:

Department: **Adams County Community & Economic Development Department**
Contact: Jen Rutter
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6841
E-mail: Jrutter@adcogov.org

Department: Adams County Purchasing
Contact: Shawn Hartmann
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6279
E-mail: Shartmann@adcogov.org

Department: Adams County Attorney's Office
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6116

Contractor: Vector Disease Control International, LLC
Contact: Rob Kozar
Address: 7000 Broadway Suite 108
City, State, Zip: Denver, Colorado 80221
Phone: 303.428.5908
E-mail: Rkozar@vdcnet

12.9. Integration of Understanding: This Agreement contains the entire understanding of the parties hereto and neither it, nor the rights and obligations hereunder, may be changed, modified, or waived except by an instrument in writing that is signed by the parties hereto.

12.10. Severability: If any provision of this Agreement is determined to be unenforceable or invalid for any reason, the remainder of this Agreement shall remain in effect, unless otherwise terminated in accordance with the terms contained herein.

- 12.11. Authorization: Each party represents and warrants that it has the power and ability to enter into this Agreement, to grant the rights granted herein, and to perform the duties and obligations herein described.
- 12.12. Confidentiality: All documentation related to this Agreement will become the property of Adams County. All documentation maintained or kept by Adams County shall be subject to the Colorado Open Records Act, C.R.S. 24-72-201 *et seq.* ("CORA"). The County does not guarantee the confidentiality of any records.

13. AMENDMENTS, CHANGE ORDERS OR EXTENSIONS:

- 13.1. Amendments or Change Orders: The County may, from time to time, require changes in the scope of the services of the Contractor to be performed herein including, but not limited to, additional instructions, additional work, and the omission of work previously ordered. The Contractor shall be compensated for all authorized changes in services, pursuant to the applicable provision in the Solicitation, or, if no provision exists, pursuant to the terms of the Amendment or Change Order.
- 13.2. Extensions: The County may, upon mutual written agreement by the parties, extend the time of completion of services to be performed by the Contractor.

14. COMPLIANCE WITH C.R.S. § 8-17.5-101, ET. SEQ. AS AMENDED 5/13/08:
Pursuant to Colorado Revised Statute (C.R.S.), § 8-17.5-101, *et. seq.*, as amended May 13, 2008, the Contractor shall meet the following requirements prior to signing this Agreement (public contract for service) and for the duration thereof:

- 14.1. The Contractor shall certify participation in the E-Verify Program (the electronic employment verification program that is authorized in 8 U.S.C. § 1324a and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or its successor program) or the Department Program (the employment verification program established by the Colorado Department of Labor and Employment pursuant to C.R.S. § 8-17.5-102(5)) on the attached certification.
- 14.2. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- 14.3. The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- 14.4. At the time of signing this public contract for services, the Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or the Department Program.

- 14.5. The Contractor shall not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this public contract for services is being performed.
- 14.6. If the Contractor obtains actual knowledge that a subcontractor performing work under this public contract for services knowingly employs or contracts with an illegal alien, the Contractor shall: notify the subcontractor and the County within three (3) days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the previous paragraph, the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
- 14.7. Contractor shall comply with any reasonable requests by the Department of Labor and Employment (the Department) made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
- 14.8. If Contractor violates this Section, of this Agreement, the County may terminate this Agreement for breach of contract. If the Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the County.

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IN WITNESS WHEREOF, the Parties have caused their names to be affixed hereto:

Board of County Commissioners

[Signature] 6-11-19
Chair Date

Vector Disease Control International, LLC

David C Fisher 6-5-19
Signature Date

DAVID C FISHER SENIOR VICE PRESIDENT
Printed Name Title

Attest:

Josh Zygielbaum, Clerk and Recorder
Ethannak
Deputy Clerk

Approved as to Form: *[Signature]*
Adams County Attorney's Office

NOTARIZATION OF CONTRACTOR'S SIGNATURE:

COUNTY OF Pulaski

STATE OF Arkansas)SS.

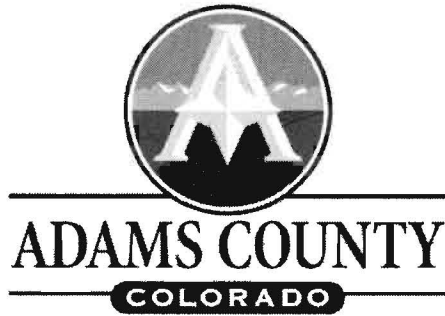
Signed and sworn to before me this 5th day of June, 2019,

by David Fisher

[Signature]
Notary Public



My commission expires on: 2-26-23



Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

**INVITATION FOR BID (IFB)
COVER SHEET**

IFB Issue Date: MARCH 8, 2019

IFB Number: IFB-SPH-2019.602

IFB Title: **MOSQUITO CONTROL SERVICES**

IFB Questions Due: MARCH 20, 2019 by 3:30P.M., MT

Bid Due Date: APRIL 5, 2019, 2:00 P.M. MT, Our Clock

Bid will be received at: 4430 South Adams County Parkway, Front Lobby
Brighton, CO 80601

For additional information please contact: Shawn Hartmann, Contract Specialist II
720.523.6279

Email Address: Shartmann@adcogov.org

Documents included in this package:

- Bid Instructions
- General Terms and Conditions
- Specifications/ Scope of Work
- Pricing Form
- Submission Check List
- Statement of No Bid
- Contractor's Certificate of Compliance
- Contractor's Statement
- Reference Form
- Attachment A – Sample Agreement
- Attachment B – 2018 Annual Mosquito Report



ADAMS COUNTY
COLORADO

Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID
BID INSTRUCTIONS

1. **PURPOSE/BACKGROUND:** The purpose of this IFB is to purchase Services as specified herein from a source(s) of supply that will give prompt and efficient service to the County for Mosquito Control Services.

2. **SUBMISSION OF BIDS:** The bid must be received before the due date and time as specified in this solicitation. The Contractor is responsible for addressing the envelope as indicated below. If the submittal arrives late, it may be returned unopened. Address the envelope as follows:

Mailing Address:
Adams County Government Center
Purchasing Division
4430 South Adams County Parkway
Brighton, CO 80601

Hand Deliveries accepted:
Adams County Government Center
First Floor Central Lobby Receptionist
4430 South Adams County Parkway
Brighton, CO 80601

ATTN: Shawn Hartmann
Contract Specialist II,
IFB-SPH-2019.602

ATTN: Shawn Hartmann
Contract Specialist II,
IFB-SPH-2019.602

3. The Adams County Board of County Commissioners by and through its Purchasing Division of the Finance Department is accepting bids for Mosquito Control.

4. All documents related to this IFB will be posted on the Rocky Mountain Bid System (BidNet) at: <https://www.bidnetdirect.com/colorado/adams-county>

4.1. Interested parties must register with this service to receive these documents.

5. **TERM OF AGREEMENT:** This is a three (3) year agreement with the option of two one-year renewals, beginning June 4, 2019. Continuation of the Agreement beyond the initial period is a County prerogative and not a right of the Contractor. This prerogative will be exercised only when such continuation is clearly in the best interest of the County and upon budget approval.

6. CONTRACTUAL OBLIGATIONS

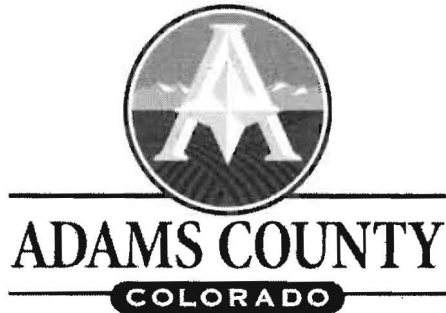
6.1. The successful Contractor will be required to sign an Agreement substantially similar to the Agreement form in Appendix A. The County reserves the right to add or delete provisions to the form prior to Agreement execution.

- 6.2. Issuance of this solicitation does not commit the County to award any Agreement or to procure or Agreement for any equipment, materials or services.
- 6.3. If a formal Agreement is required, the Contractor agrees and understands that a Notice of Award does not constitute an Agreement or create a property interest of any nature until an Agreement is signed by the Awardee and the Board of County Commissioners and/or their authorized designee.
- 6.4. Contractor is responsible for reviewing the form Agreement and understanding the terms and conditions contained therein, including, but not limited to, insurance requirements, indemnification, illegal aliens, equal opportunity, non-appropriation, and termination.
- 6.5. Contractor's Response must state its willingness to enter into the form Agreement or Contractor shall identify and include any proposed revisions they have for the form Agreement. Any proposed revisions made by the Contractor after the County Notice of Intent to Award the Solicitation may be grounds for rescinding said Notice. The identification of willingness to enter into the standard Agreement is for general purposes at this time, but is part of the evaluation process and must be included. There may be negotiations on a project-by-project basis that provide further clarification.
- 6.6. Incorrect Pricing/Invoicing. As part of any award resulting from this process, Contractor(s) will discount all transactions as agreed. In the event the County discovers, through its Agreement monitoring process or formal audit process, that material or services were priced/invoiced incorrectly, Contractor(s) agree to promptly refund all overpayments and to pay all reasonable audit expenses incurred as a result of the non-compliance.
- 6.7. The County may, during the term of the Agreement and any extensions, request additional work at other locations throughout Adams County by the successful Contractor.
7. **METHOD OF AWARD** - It is the intent of the County to award an Agreement to the Contractor who provides lowest responsive and responsible bid.
8. Questions which arise during the Bid preparation period regarding issues around this Solicitation, purchasing and/or award should be directed, via e-mail, to Shawn Hartmann, Contract Specialist II, Purchasing Division, Adams County, Shartmann@adcogov.org. The Contractor submitting the question(s) shall be responsible for ensuring the question(s) is received by the County by the date listed above in the schedule of activities for submitting the question(s) regardless of the method of delivery.
9. Any official interpretation of this IFB must be made by an agent of the County's Purchasing Division who is authorized to act on behalf of the County. The County shall not be responsible for interpretations offered by employees of the County who are not agents of the County's Purchasing Division.
10. **COOPERATIVE PURCHASING:** Adams County encourages cooperative purchasing in an effort to assist other agencies to reduce their cost of bidding and to make better use of taxpayer dollars through volume purchasing. Contractor(s) may, at their discretion, agree to extend the prices and/or terms of the resulting award to other state or local government agencies, school districts, or political subdivisions in the event they would have a need for

the same product/service. Usage by any entity shall not have a negative impact on Adams County in the current term or in any future terms.

11. The Contractor(s) must deal directly with any governmental agency concerning the placement of purchase orders/agreements, freight/delivery charges, Contractual disputes, invoices, and payments. Adams County shall not be liable for any costs or damages incurred by any other entity.
12. BUDGET: Budget will not be disclosed.
13. DEBARMENT: By submitting this bid, the Contractor warrants and certifies they are eligible to submit a bid because their company and/or subcontractor(s) is/are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in a transaction by any Federal, State, or local department or agency.

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Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID
GENERAL TERMS AND CONDITIONS

14. **APPLICABILITY:** These General Terms and Conditions apply, but are not limited, to all bids, proposals, qualifications and quotations (hereinafter referred to as "Bid" or "Response") made to Adams County (hereinafter referred to as "County") by all prospective Contractors, bidders, firms, companies, publishers, consultants, or suppliers (herein after referred to as "Contractor" or "Contractors") in response, but not limited, to all Invitations to Bid, Requests for Proposals, Requests for Qualifications, and Requests for Quotations (hereinafter referred to as "Solicitation" or "Solicitations").

15. CONTENTS OF BIDS

15.1. **GENERAL CONDITIONS:** Contractors are required to submit their Bids in accordance with the following expressed conditions:

15.1.1. Contractors shall make all investigations necessary to thoroughly inform themselves regarding the plant and facilities affected by the delivery of materials and equipment as required by the conditions of the Solicitation. No plea of ignorance by the Contractor of conditions that exist or that may hereafter exist will be accepted as the basis for varying the requirements of the County or the compensation to the Contractor.

15.1.2. Contractors are advised that all County Solicitations and Agreements are subject to all requirements contained in the County's Purchasing Division's Policies and state and federal statutes. When conflicts occur, the highest authority will prevail.

15.1.3. Federally funded projects (in whole or in part) shall be handled within the laws, rules, and regulations as promulgated by the United States Government, which includes Public Law <http://uscode.house.gov>; Code of Federal Regulations (CFR) codification of the general and permanent rules and regulations <https://www.ecfr.gov>, but is not limited to: Title 2: Grants and Agreements: Part 200 Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards Subpart F Appendix II and Uniform Grant Guidance as amended.

15.1.4. Contractors are required to state exactly what they intend to furnish to the County in their Bid and must indicate any variances to the terms, conditions, and specifications of this Solicitation no matter how slight. If variations are not stated in a Contractor's Bid, it shall be construed that the Contractor's Bid fully complies with all conditions identified in this Solicitation.

16. The County intends and expects that the Contracting processes of the County and its Contractors provide equal opportunity without regard to gender, race, ethnicity, religion, age or disability and that its Contractors make available equal opportunities to the extent third parties are engaged to provide goods and services to the County as Subcontractors, Contractors, or otherwise. Accordingly, the Contractor shall not discriminate on any of the foregoing grounds in the performance of any Agreement awarded to the Contractor, and shall make available equal opportunities to the extent third parties are engaged to provide goods and services in connection with performance of the Agreement. If submitting a joint venture bid, or a bid involving a partnership arrangement, articles of partnership stating each partner's responsibilities shall be furnished and submitted with the Bid Response.
17. All documentation submitted in response to this solicitation will become the property of Adams County. All documentation maintained or kept by Adams County shall be subject to the Colorado Open Records Act, C.R.S. 24-72-201 *et. seq.* ("CORA"). Accordingly, respondents are discouraged from providing information that they consider confidential, privileged, and/or trade secrets as part of a response to this solicitation. Any portions of submissions that are reasonably considered confidential should be clearly marked. The County does not guarantee the confidentiality of any records.

Careful consideration should be given before submitting confidential information to the County. The Colorado Open Records Act permits public scrutiny of most materials collected in this Solicitation process. Information that is reasonably considered proprietary should be clearly marked as confidential.

18. CLARIFICATION AND MODIFICATIONS IN TERMS AND CONDITIONS

18.1. Where there appears to be variances or conflicts between the General Terms and Conditions, any Special Terms and Conditions and the Scope of Work/Specifications outlined in this Solicitation, the Scope of Work/ Specifications, and then the Special Terms and Conditions, will prevail.

18.1.1. If any Contractor contemplating submitting a Bid under this Solicitation is in doubt as to the true meaning of the Specifications or any other portion of the Solicitation, the Contractor must submit a **written request** via email for clarification to the Point of Contact listed on the first page of this Solicitation. The Contractor submitting the request shall be responsible for ensuring that the request is received by the County prior to the deadline for submitting questions.

18.1.2. The County shall issue a written addendum if substantial changes which impact the technical submission of Bids are required. A copy of such addenda will be available at the Rocky Mountain E-Purchasing System (BIDNET) website. In the event of conflict with the original Solicitation documents, addenda shall supersede to the extent specified. Subsequent addenda shall supersede prior addenda only to the extent specified.

18.1.3. **ADDENDA: CONTRACTOR IS RESPONSIBLE FOR OBTAINING AND ACKNOWLEDGING ALL SUBSEQUENT ADDENDA VIA THE ROCKY MOUNTAIN E-PURCHASING SYSTEM (BIDNET). FAILURE TO SUBMIT ANY AND ALL SUBSEQUENT ADDENDUM/ADDENDA MAY DEEM THE CONTRACTOR NON-RESPONSIVE. EACH AND EVERY ADDENDUM TO BE SEPARATELY ACKNOWLEDGED.**

18.2. PRICES CONTAINED IN SUBMITTAL – DISCOUNTS, TAXES

- 18.2.1. Contractor agrees to hold submitted prices up to 120 days after bid due date.
- 18.2.2. Contractors may offer a cash discount for prompt payment. Discounts will be considered in determining the lowest net cost for the evaluation of Bids; discounts for periods of less than twenty days, however, will not be considered in making an award. If no prompt payment discount is being offered, the Contractor shall enter a zero (0) for the percentage discount to indicate net thirty days. If the Contractor does not enter a percentage discount, it is hereby understood and agreed that the payment terms shall be net thirty days, effective on the date that the County receives an accurate invoice or accepts the products, whichever is the later date. Payment is deemed to be made on the date of the mailing of the check.
- 18.2.3. Contractors shall not include federal, state, or local excise or sales taxes in prices offered, as the County is exempt from payment of such taxes.
 - 18.2.3.1. Federal Identification Number: 84-6000732
 - 18.2.3.2. State of Colorado Tax Exempt Number: 98-03569

19. SIGNING BID

- 19.1. Contractor, by affixing its signature to this Solicitation, certifies that its Bid is made without previous understanding, agreement, or connection either with any persons, firms or corporations making a Bid for the same items, or with the County. The Contractor also certifies that its Bid is in all respects fair, without outside control, collusion, fraud, or otherwise illegal action. To insure integrity of the County's public procurement process, all Contractors are hereby placed on notice that any and all Contractors who falsify the certifications required in conjunction with this section will be prosecuted to the fullest extent of the law.

20. PREPARATION AND SUBMISSION OF BID

20.1. PREPARATION

- 20.1.1. The Bid must be typed or legibly printed in ink. The use of erasable ink is not permitted. All corrections made by the Contractor must be initialed by the authorized agent of the Contractor.
- 20.1.2. Bids must contain a manual signature of an authorized agent of the Contractor in the space provided on the Contractor's Statement page. The Contractor's Statement page of this Solicitation must be included in Bid response. If the Contractor's authorized agent fails to sign and return the Contractor's Statement of the Solicitation, its Bid may be invalid and may not be considered.
- 20.1.3. The County logo is trademarked and property solely of the County. Contractors do not have permission to use the County's logo on any documentation or presentation materials and to do so would be a violation of the County's trademark.

- 20.1.4. Bids shall be provided by the Contractor on the Pricing Form. Prices that are not in accordance with the measurements and descriptions requested may be considered non-responsive. Where there is a discrepancy between the unit price and the extension of prices, the unit price shall prevail.
- 20.1.5. Alternate Bids will not be considered unless expressly permitted in the Specifications/Scope of Work.
- 20.1.6. The accuracy of the Bid is the sole responsibility of the Contractor. No changes in the Bid shall be allowed after the date and time that submission of the Bid is due.

20.2. SUBMISSION

- 20.2.1. The Bid shall be sealed in an envelope with the Contractor's name and the Solicitation number on the outside. The County's Pricing Form, which is attached to this Solicitation, must be used when the Contractor is submitting its Bid response. The Contractor shall not alter this form (e.g. add or modify categories for posting prices offered) unless expressly permitted in the Solicitation or in an addendum duly issued by the County. Only sealed Bids received by the Purchasing Division of the Finance Department will be accepted; Bids submitted telephone, email, or facsimile machines are not acceptable.
- 20.2.2. Each Bid must be submitted at the time and place, and number of copies as specified in this Solicitation. Failure to submit the required number of copies may deem the Contractor's Bid non-responsive.
- 20.2.3. Failure to provide any requested information may result in the rejection of the Bid as non-responsive.
- 20.2.4. Bid must be submitted in the format supplied and/or described by the County. Failure to submit in the format provided may be cause for rejection of the proposal. Bids must be furnished exclusive of taxes.
- 20.2.5. Contractor is responsible for ensuring their Bid is received by the Purchasing Division prior to the deadline outlined in the solicitation regardless of the method of delivery.
- 20.2.6. Contractors, which qualify their Bid by requiring alternate Contractual terms and conditions as a stipulation for Agreement award must include such, alternate terms and conditions in their Response. The County reserves the right to declare a Contractor's Bid as non-responsive if any of these alternate terms and conditions is in conflict with the County's terms and conditions, or if they are not in the best interests of the County.

21. LATE BIDS

- 21.1. Bids received after the date and time set for the opening shall be considered non-responsive and may be returned unopened to the Contractor.

- 21.2. The County assumes no responsibility for late deliveries of mail on behalf of the United States Post Office or any other delivery system.
- 21.3. The County assumes no responsibility for a Bid being either opened early or improperly routed if the envelope is not clearly marked on the outside: Mosquito Control and IFB-SPH-2019.602.
- 21.4. In the event of a situation severe enough to cause the Adams County Board of Commissioners to close the County offices for any reason, the Purchasing Manager has the prerogative of rescheduling the Bid opening time and date. No Bid will be considered above all other Bids by having met the Bid opening time and date requirements to the exclusion of those who were unable to present their Bid due to a situation severe enough to cause the Board of County Commissioners to close the County offices.

22. MODIFICATIONS/WITHDRAWAL OF BIDS

22.1. MODIFICATIONS TO BIDS. Bids may only be modified in the form of a written notice on Contractor letterhead and must be received prior to the time and date set for the Proposals to be opened. Each modification submitted to the County's Purchasing Division must have the Contractor's name and return address and the applicable Solicitation number and title clearly marked on the face of the sealed envelope. If more than one modification is submitted, the modification bearing the latest date of receipt by the County's Purchasing Division will be considered the valid modification.

22.2. WITHDRAWAL OF BIDS

22.2.1. Bids may be withdrawn in the form of a written notice on Contractor letterhead and must be received prior to the time and date set for the opening of Bids. Any withdrawal of a Bid submitted to Adams County Purchase Division must have the Contractor's name, return address, and the applicable Solicitation number and title clearly marked on the face of the envelope and on the withdrawal letter.

22.2.2. Bids may not be withdrawn after the time and date set for the opening for a period of ninety calendar days. If a Bid is withdrawn by the Contractor during this ninety-day period, the County may, at its option, suspend the Contractor and may not accept any Bid from the Contractor for a six-month period following the withdrawal.

23. REJECTION OF BIDS

23.1. REJECTION OF BIDS. The County may, at its sole and absolute discretion:

23.1.1. Reject any and all, or parts of any or all, Bids submitted by prospective Contractors;

23.1.2. Re-advertise this Solicitation;

23.1.3. Postpone or cancel the process;

23.1.4. Waive any irregularities in the Bids received in conjunction with this Solicitation; and/or

23.2. REJECTION OF A PARTICULAR BID. In addition to any reason identified above, the County may reject a Bid under any of the following conditions:

23.2.1. The Contractor misstates or conceals any material fact in its Bid Response;

23.2.2. The Contractor's Bid does not strictly conform to the law or the requirements of the Solicitation;

23.2.3. The Bid expressly requires or implies a conditional award that conflicts with the method of award stipulated in the Solicitation;

23.2.4. The Bid does not include documents, including, but not limited to, certificates, licenses, and/or samples, which are required for submission with the Bid in accordance with the Solicitation; and/or

23.2.5. The Bid has not been executed by the Contractor through an authorized signature on the Contractor's Statement.

23.3. The County reserves the right to waive any irregularities or informalities, and the right to accept or reject any and all bids.

24. ELIMINATION FROM CONSIDERATION

24.1. A Bid may not be accepted from, nor any Agreement be awarded to, any person or firm which is in arrears to the County upon any debt or Agreement or which is a defaulter as surety or otherwise upon any obligation to the County.

24.2. A Bid may not be accepted from, nor any Agreement awarded to, any person or firm who has failed to perform faithfully any previous Agreement with the County or other governmental entity, for a minimum period of three years after the previous Agreement was terminated for cause.

24.3. Any communications in regards to this Solicitation must go through the Adams County Purchasing Division only. Any contact with other County personnel or County Contractors may be cause for disqualification.

24.4. No damages shall be recoverable by any challenger as a result of the determinations listed in this Section or decisions by the County.

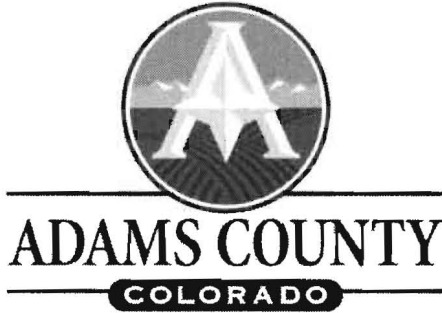
24.5. The Board of County Commissioners may rescind the award of any Bid within one week thereof or at its next regularly scheduled meeting; whichever is later, when the public interest will be served thereby.

25. QUALIFICATIONS OF CONTRACTOR: The County may make such investigations as deemed necessary to determine the ability of the Contractor to perform work, and the Contractor shall furnish all information and data for this purpose as the County requests. Such information includes, but is not limited to: current/maximum bonding capabilities,

current licensing information, audited financial statements, history of the firm on assessments of liquidated damages, Agreements cancelled prior to completion and/or lawsuits and/or pending lawsuits against the firm and/or its principals. The County reserves the right to reject any Bid if the evidence submitted by, or investigation of, such Contractor fails to satisfy the County that such Contractor is properly qualified to carry out the obligations of the Agreement and to complete the work contemplated therein. Conditional Bids will not be accepted.

26. AWARD OF SOLICITATION. The County may award this Solicitation to the successful Contractor through the issuance of a Notice of Intent to Award. All Contractors that participated in the Solicitation process will be notified of Contractor selection. No services or goods shall be provided, and no compensation shall be paid, until and unless an Agreement has been signed by an authorized representative of the County and the Contractor.

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Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID 2019.602
SPECIFICATIONS/SCOPE OF WORK

I. SPECIFICATIONS/SCOPE OF WORK

Adams County Government is seeking responses from qualified firms for a mosquito control contractor to provide various mosquito control services and related integrated pest management program services.

1. As a reference see the attached 2018 annual mosquito control report (Attachment B)
2. The Contractor will work closely with County staff to administer mosquito control services, perform data collection and reporting, and provide certain public relations functions. The program will service a geographic area including Adams County and an appropriate buffer area surrounding the County. The program area is expected to be approximately 195 square miles, generally west of Piccadilly Road; however, the size and scope of the program may be subject to change throughout the term of this agreement. The program will cover only the unincorporated areas of Adams County.
 - 2.1. In 2017, 792 sites were inspected and 23.3 acres were treated.
 - 2.2. In 2018, 731 sites were inspected and 10.5 acres were treated.
3. The Contractor must be licensed to provide Public Health Mosquito Control services in Colorado, and be able to demonstrate they have the capacity and experience to provide the request services as outlined below.
4. The Adams County will give preference to contractors that utilize an Integrated Pest Management approach to mosquito control. Usage of alternative fuel vehicles is strongly encouraged.
5. Contractor must be able to start immediately upon award and contract of services.
6. **Required Services**
 - 6.1. Survey land within the larval control area, approximately 195 square miles, to identify and map mosquito breeding sites.
 - 6.2. Develop and maintain mosquito control service related information in GIS format.
 - 6.3. Provide GIS maps indicating mosquito breeding sites and larval control activity.

7. Mosquito Breeding Site Inspection, Larviciding, and Adulticiding Services

- 7.1. Inspect mosquito breeding sites with appropriate frequency to determine the need to apply larvicide to control mosquitoes.
- 7.2. Apply larvicide as needed through the mosquito control season. Reference the attached 2018 Mosquito Control Annual Report regarding approximate acres within the larval control area that will require application of larvicide on an on-going basis throughout the mosquito control season. Larvicide treatments may be applied through a variety of appropriate methods.
- 7.3. Provide periodic quality control follow-up inspections of larvicide applications.
- 7.4. Provide adulticiding services for those locations where the trap counts warrant it or if deemed to be a public health concern by the Tri-County Health Department.
- 7.5. Provide adulticiding services for County events at the Riverdale Regional Park, including the Adams County Fair, as directed by the County Representative.
- 7.6. The site inspection and larviciding season will begin June 1st and will terminate on September 15th of each year, or as directed by the County Representative.

8. Adult Mosquito Surveillance Services.

- 8.1. Design and conduct an on-going mosquito surveillance program utilizing CDC Light Trapping and Reiter Gravid Trapping methods.
- 8.2. Provide laboratory species identification services.
- 8.3. Provide mosquito samples to the state and/or CDC for WNV testing, as necessary.
- 8.4. The surveillance season will begin June 1st and will terminate on September 15th of each year, or as directed by County Representative.
- 8.5. At a minimum, trap locations shall be along Piccadilly Road, east of Brighton; at East 112th Avenue and the South Platte River; at the Riverdale Regional Park; and at East 144th Avenue and Riverdale Road. Floater traps shall be placed in addition to the named location traps in response to complaints. Trap locations may be changed after consulting with Adams County and the Tri-County Health Department.
- 8.6. Contractor shall provide the County Representative and the Tri-County Health Department with trap counts each week, before the close of business on Thursday for that week.

9. Public Relations & Education Services

- 9.1. Accept calls from the general public regarding possible mosquito breeding site locations and mosquito control issues in general on an on-going basis.
- 9.2. Provide information to the news media regarding the mosquito control issues, as appropriate.
- 9.3. Provide a mosquito larva eating fish program as a non-pesticide larva control option for ornamental ponds.

10. Reports

10.1. Provide the County with on-going status reports including:

- 10.1.1. Weekly surveillance trap reports including trap counts;
- 10.1.2. Larviciding activity reports;
- 10.1.3. Telephone call log reports; and
- 10.1.4. Monthly summary reports.

10.2. Provide the County with an Annual Report summarizing the mosquito control program activity for the year at the conclusion of the mosquito control season.

11. Public Health Emergency Adulticiding Services

11.1. Demonstrate the capacity to provide public health emergency truck-based ULV adulticiding, in the event such services are required, as determined by the County.

12. Award will be made on an inclusive fixed yearly cost.

II. REQUIRED DOCUMENTATION

Failure to provide required information may deem your submittal non-responsive.

- Resumes for the person or persons in your firm that you propose to provide the actual services
- References (form below)
- Pricing (form below)

III. RESPONSE FORMAT

Failure to respond in the required format may deem your submittal non-responsive.

Failure to provide required information may deem your submittal non-responsive.

SUBMISSION OF BIDS: Two (2) hardcopies (to include one (1) ORIGINAL), and one (1) electronic (USB or CD PDF document) must be received at the time and place specified in this Solicitation. Submittals should be prepared simply and economically providing a straightforward, concise description of the Contractor's ability to perform the requirements of this solicitation. Failure to submit the required number of copies may deem the Contractor non-responsive.

Electronic copy shall be an EXACT reproduction of the original documents provided.
All sections shall be combined into a single PDF electronic document.

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ADAMS COUNTY
COLORADO

Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID 2019.602
PRICING FORM

COMPANY NAME: _____

Fixed Pricing – Year One

Cost per Trap/Night: \$ _____ Written: _____

Cost per Lineal Spray Route Mile: \$ _____ Written: _____

Include an hourly cost rate and a list of reimbursement rates that would be associated with the services (please attach on a separate form marked rates).

Fixed Pricing – Year Two

Cost per Trap/Night: \$ _____ Written: _____

Cost per Lineal Spray Route Mile: \$ _____ Written: _____

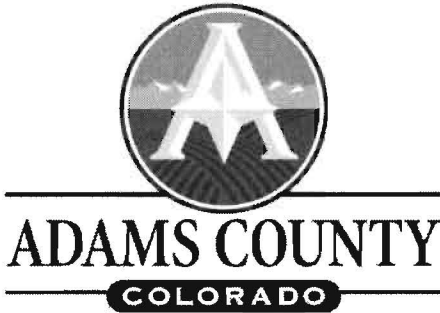
Include an hourly cost rate and a list of reimbursement rates that would be associated with the services (please attach on a separate form marked rates).

Fixed Pricing – Year Three

Cost per Trap/Night: \$ _____ Written: _____

Cost per Lineal Spray Route Mile: \$ _____ Written: _____

Include an hourly cost rate and a list of reimbursement rates that would be associated with the services (please attach on a separate form marked rates).



Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

**INVITATION FOR BID 2019.602
SUBMISSION CHECK LIST**

SUBMISSION: It is imperative you address your submittal envelope as noted in the Bid Instructions.

- | | | |
|--|------------|-----------|
| Does your Bid comply with all the terms and conditions of this Solicitation? | YES | NO |
| Requirements met and response included? | YES | NO |
| May any other governmental entity avail itself of this Agreement and purchase any and all items specified? | YES | NO |
| Have all Addendums been acknowledged, a duly authorized agent signature obtained, and enclosed on the Contractors Statement? | YES | NO |
| Original and the number of copies specified enclosed including electronic copy? | YES | NO |
| If applicable, have all necessary Bonds been included? | YES | NO |
| Contractor Certification of Compliance signed and enclosed? | YES | NO |



ADAMS COUNTY
COLORADO

Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID
CONTRACTOR'S CERTIFICATION
OF COMPLIANCE

Pursuant to Colorado Revised Statute, § 8-17.5-101, *et seq.*, as amended 5/13/08, as a prerequisite to entering into a Agreement for services with Adams County, Colorado, the undersigned Contractor hereby certifies that at the time of this certification, Contractor does not knowingly employ or Agreement with an illegal alien who will perform work under the attached Agreement for services and that the Contractor will participate in the E-Verify Program or Department program, as those terms are defined in C.R.S. § 8-17.5-101, *et. seq.* in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the attached Agreement for services.

Contractor Name

Printed or Typed Name

Signature

Title

Date

Note: Registration for the E-Verify Program can be completed at: <https://www.vis-dhs.com/employerregistration>. It is recommended that employers review the sample "memorandum of understanding" available at the website prior to registering.



ADAMS COUNTY
COLORADO

Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID 2019.602
CONTRACTOR'S STATEMENT

Pursuant to 2 C.F.R. Part 200 Subpart C 200.213, Contractor certifies that they are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency, and has read and fully understand all the conditions herein set forth in the foregoing paragraphs, and by my signature set forth hereunder, I hereby agree to comply with all said conditions as stated or implied. In consideration of the above statement, the following Bid is hereby submitted.

If any of the documents listed on the cover page are missing from this package, contact Adams County Purchasing. If you require additional information, call the Purchasing Division contact person.

The undersigned hereby affirms that (1) he/she is a duly authorized agent of the Contractor, (2) he/she has read all terms and conditions and technical specifications which were made available in conjunction with this solicitation and fully understands and accepts them unless specific variations have been expressly listed in his/her Bid, (3) the Bid is being submitted on behalf of the Contractor in accordance with any terms and conditions set forth in this Solicitation, and (4) the Contractor will accept any awards made to it as a result of the Bid submitted herein for a minimum of 120 calendar days following the date of submission.

WE, THE UNDERSIGNED, HEREBY ACKNOWLEDGE RECEIPT OF

Addenda (list all): _____

Contractor Name Date

Signature Printed Name

Title

Address

City, State, Zip Code County

Telephone Fax

Email



ADAMS COUNTY
COLORADO

Adams County Finance Department
Purchasing Division
4430 S Adams County Parkway
Brighton, Colorado 80601

INVITATION FOR BID
REFERENCE FORM

Contractors shall furnish the names, addresses and telephone numbers of a minimum of three (3) firms or government organizations for which the Contractor has provided similar projects:

Company Name _____

Address _____

Reference Name _____

Reference Email Address _____

Telephone Number _____

Project Name _____

Value \$ _____

Company Name _____

Address _____

Reference Name _____

Reference Email Address _____

Telephone Number _____

Project Name _____

Value \$ _____

Company Name _____

Address _____

Reference Name _____

Reference Email Address _____

Telephone Number _____

Project Name _____

Value \$ _____

**ADAMS COUNTY
PROFESSIONAL SERVICE AGREEMENT
FOR MOSQUITO CONTROL SERVICES**

THIS AGREEMENT ("Agreement") is made this ____ day of _____ 2019, by and between the Adams County Board of County Commissioners, located at 4430 South Adams County Parkway, Brighton, Colorado 80601, hereinafter referred to as the "County," and Company Name, located at Address123, hereinafter referred to as the "Contractor." The County and the Contractor may be collectively referred to herein as the "Parties."

The County and the Contractor, for the consideration herein set forth, agree as follows:

1. SERVICES OF THE CONTRACTOR:

1.1. All work shall be in accordance with the attached IFB-SPH-2019.602 and the Contractor's response to the IFB-SPH-2019.602 attached hereto as Exhibit A, and incorporated herein by reference. Should there be any discrepancy between Exhibit A and this Agreement the terms and conditions of this Agreement shall prevail.

1.2. Emergency Services: In the event the Adams County Board of County Commissioners declares an emergency, the County may request additional services (of the type described in this Agreement or otherwise within the expertise of the Contractor) to be performed by the Contractor. If the County requests such additional services, the Contractor shall provide such services in a timely fashion given the nature of the emergency, pursuant to the terms of this Agreement. Unless otherwise agreed to in writing by the parties, the Contractor shall bill for such services at the rates provided for in this Agreement.

2. RESPONSIBILITIES OF THE COUNTY: The County shall provide information as necessary or requested by the Contractor to enable the Contractor's performance under this Agreement.

3. TERM:

3.1. Term of Agreement: The Term of this Agreement shall be for three years from June 4, 2019 through June 3, 2022.

3.2. Renewal Option: The County, at its sole option, may offer to renew this Agreement as necessary for up to two, one year renewals providing satisfactory service is given and all terms and conditions of this Agreement have been fulfilled. Such renewals must be mutually agreed upon in writing by the County and the Contractor.

4. PAYMENT AND FEE SCHEDULE: The County shall pay the Contractor for services furnished under this Agreement, and the Contractor shall accept as full payment for those services, the sum of: \$\$\$

- 4.1. Payment pursuant to this Agreement, whether in full or in part, is subject to and contingent upon the continuing availability of County funds for the purposes hereof. In the event that funds become unavailable, as determined by the County, the County may immediately terminate this Agreement or amend it accordingly.
5. **INDEPENDENT CONTRACTOR:** In providing services under this Agreement, the Contractor acts as an independent contractor and not as an employee of the County. The Contractor shall be solely and entirely responsible for his/her acts and the acts of his/her employees, agents, servants, and subcontractors during the term and performance of this Agreement. No employee, agent, servant, or subcontractor of the Contractor shall be deemed to be an employee, agent, or servant of the County because of the performance of any services or work under this Agreement. The Contractor, at its expense, shall procure and maintain workers' compensation insurance as required by law. **Pursuant to the Workers' Compensation Act § 8-40-202(2)(b)(IV), C.R.S., as amended, the Contractor understands that it and its employees and servants are not entitled to workers' compensation benefits from the County. The Contractor further understands that it is solely obligated for the payment of federal and state income tax on any moneys earned pursuant to this Agreement.**
6. **NONDISCRIMINATION:**
- 6.1. **The Contractor shall not discriminate against any employee or qualified applicant for employment because of age, race, color, religion, marital status, disability, sex, or national origin. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices provided by the local public agency setting forth the provisions of this nondiscrimination clause. Adams County is an equal opportunity employer.**
- 6.1.1. The Contractor will cause the foregoing provisions to be inserted in all subcontracts for any work covered by this Agreement so that such provisions will be binding upon each subcontractor, provided that the foregoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.
7. **INDEMNIFICATION:** The Contractor agrees to indemnify and hold harmless the County, its officers, agents, and employees for, from, and against any and all claims, suits, expenses, damages, or other liabilities, including reasonable attorney fees and court costs, arising out of damage or injury to persons, entities, or property, caused or sustained by any person(s) as a result of the Contractor's performance or failure to perform pursuant to the terms of this Agreement or as a result of any subcontractors' performance or failure to perform pursuant to the terms of this Agreement.
8. **INSURANCE:** The Contractor agrees to maintain insurance of the following types and amounts:

- 8.1. Commercial General Liability Insurance: to include products liability, completed operations, contractual, broad form property damage and personal injury.
- 8.1.1. Each Occurrence: \$1,000,000
- 8.1.2. General Aggregate: \$2,000,000
- 8.2. Comprehensive Automobile Liability Insurance: to include all motor vehicles owned, hired, leased, or borrowed.
- 8.2.1. Bodily Injury/Property Damage: \$1,000,000 (each accident)
- 8.2.2. Personal Injury Protection: Per Colorado Statutes
- 8.3. Workers' Compensation Insurance: Per Colorado Statutes
- 8.4. Professional Liability Insurance: to include coverage for damages or claims for damages arising out of the rendering, or failure to render, any professional services, as applicable.
- 8.4.1. Each Occurrence: \$1,000,000
- 8.4.2. This insurance requirement applies only to the Contractors who are performing services under this Agreement as professionals licensed under the laws of the State of Colorado, such as physicians, lawyers, engineers, nurses, mental health providers, and any other licensed professionals.
- 8.5. Adams County as "Additional Insured": The Contractor's commercial general liability, and comprehensive automobile liability, insurance policies and/or certificates of insurance shall be issued to include Adams County as an "additional insured" and shall include the following provisions:
- 8.5.1. Underwriters shall have no right of recovery or subrogation against the County, it being the intent of the parties that the insurance policies so affected shall protect both parties and be primary coverage for any and all losses resulting from the actions or negligence of the Contractor.
- 8.5.2. The insurance companies issuing the policy or policies shall have no recourse against the County for payment of any premiums due or for any assessments under any form of any policy.
- 8.5.3. Any and all deductibles contained in any insurance policy shall be assumed by and at the sole risk of the Contractor.
- 8.6. Licensed Insurers: All insurers of the Contractor must be licensed or approved to do business in the State of Colorado. Upon failure of the Contractor to furnish, deliver and/or maintain such insurance as provided herein, this Agreement, at the election of the County, may be immediately declared suspended, discontinued, or terminated. Failure of the Contractor in obtaining and/or maintaining any required insurance shall not relieve the Contractor from

any liability under this Agreement, nor shall the insurance requirements be construed to conflict with the obligations of the Contractor concerning indemnification.

- 8.7. Endorsement: Each insurance policy herein required shall be endorsed to state that coverage shall not be suspended, voided, or canceled without thirty (30) days prior written notice by certified mail, return receipt requested, to the County.
- 8.8. Proof of Insurance: At any time during the term of this Agreement, the County may require the Contractor to provide proof of the insurance coverage or policies required under this Agreement.

9. DAMAGES ARISING FROM BREACH OF PERFORMANCE OBLIGATIONS

- 9.1. Notwithstanding anything else set forth in this Agreement, if Contractor fails to comply with all terms of this contract, including but not limited to, its obligation to perform its work in a workmanlike manner in accordance with all codes, plans, specifications and industry standards, Contractor shall be liable to County for all damages arising from the breach, including but not limited to, all attorney fees, costs and other damages.

10. WARRANTY:

- 10.1. The Contractor warrants and guarantees to the County that all work, equipment, and materials furnished under the Agreement are free from defects in workmanship and materials for a period of one year after final acceptance by the County. The Contractor further warrants and guarantees that the plans and specifications incorporated herein are free of fault and defect sufficient for Contractor to warrant the finished product after completion date. Should the Contractor fail to proceed promptly in accordance with this guarantee, the County may have such work performed at the expense of the Contractor. This section does not relieve the Contractor from liability for defects that become known after one year.

11. TERMINATION:

- 11.1. For Cause: If, through any cause, the Contractor fails to fulfill its obligations under this Agreement in a timely and proper manner, or if the Contractor violates any of the covenants, conditions, or stipulations of this Agreement, the County shall thereupon have the right to immediately terminate this Agreement, upon giving written notice to the Contractor of such termination and specifying the effective date thereof.
- 11.2. For Convenience: The County may terminate this Agreement at any time by giving written notice as specified herein to the other party, which notice shall be given at least thirty (30) days prior to the effective date of the termination. If this Agreement is terminated by the County, the Contractor will be paid an amount that bears the same ratio to the total compensation as the services actually performed bear to the total services the Contractor was to perform under this

Agreement, less payments previously made to the Contractor under this Agreement.

12. MUTUAL UNDERSTANDINGS:

- 12.1. Jurisdiction and Venue: The laws of the State of Colorado shall govern as to the interpretation, validity, and effect of this Agreement. The parties agree that jurisdiction and venue for any disputes arising under this Agreement shall be with Adams County, Colorado.
- 12.2. Compliance with Laws: During the performance of this Agreement, the Contractor agrees to strictly adhere to all applicable federal, state, and local laws, rules and regulations, including all licensing and permit requirements. The parties hereto aver that they are familiar with § 18-8-301, et seq., C.R.S. (Bribery and Corrupt Influences), as amended, and § 18-8-401, et seq., C.R.S. (Abuse of Public Office), as amended, , the Clean Air Act (42 U.S.C. 7401-7671q), and the Federal Water Pollution Control Act (33 U.S.C. 1251-1387), as amended, and that no violation of such provisions are present. The Contractor warrants that it is in compliance with the residency requirements in §§ 8-17.5-101, et seq., C.R.S. Without limiting the generality of the foregoing, the Contractor expressly agrees to comply with the privacy and security requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA).
- 12.3. OSHA: The Contractor shall comply with the requirements of the Occupational Safety and Health Act (OSHA) and shall review and comply with the County's safety regulations while on any County property. Failure to comply with any applicable federal, state or local law, rule, or regulation shall give the County the right to terminate this agreement for cause.
- 12.4. Record Retention: The Contractor shall maintain records and documentation of the services provided under this Agreement, including fiscal records, and shall retain the records for a period of three (3) years from the date this Agreement is terminated. Said records and documents shall be subject at all reasonable times to inspection, review, or audit by authorized Federal, State, or County personnel.
- 12.5. Assignability: Neither this Agreement, nor any rights hereunder, in whole or in part, shall be assignable or otherwise transferable by the Contractor without the prior written consent of the County.
- 12.6. Waiver: Waiver of strict performance or the breach of any provision of this Agreement shall not be deemed a waiver, nor shall it prejudice the waiving party's right to require strict performance of the same provision, or any other provision in the future, unless such waiver has rendered future performance commercially impossible.
- 12.7. Force Majeure: Neither party shall be liable for any delay or failure to perform its obligations hereunder to the extent that such delay or failure is caused by a force or event beyond the control of such party including, without limitation, war,

embargoes, strikes, governmental restrictions, riots, fires, floods, earthquakes, or other acts of God.

12.8. Notice: Any notices given under this Agreement are deemed to have been received and to be effective:

1) Three (3) days after the same shall have been mailed by certified mail, return receipt requested;

2) Immediately upon hand delivery; or

3) Immediately upon receipt of confirmation that an E-mail was received. For the purposes of this Agreement, any and all notices shall be addressed to the contacts listed below:

Department: **Adams County Community & Economic Development Department**
Contact: Doug Clark
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6986
E-mail: Dclark@adcogov.org

Department: Adams County Purchasing
Contact: Shawn Hartmann
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6279
E-mail: Shartmann@adcogov.org

Department: Adams County Attorney's Office
Address: 4430 South Adams County Parkway
City, State, Zip: Brighton, Colorado 80601
Phone: 720.523.6116

Contractor: Winner123
Contact:
Address:
City, State, Zip:
Phone:
E-mail:

12.9. Integration of Understanding: This Agreement contains the entire understanding of the parties hereto and neither it, nor the rights and obligations hereunder, may be changed, modified, or waived except by an instrument in writing that is signed by the parties hereto.

12.10. Severability: If any provision of this Agreement is determined to be unenforceable or invalid for any reason, the remainder of this Agreement shall remain in effect, unless otherwise terminated in accordance with the terms contained herein.

- 12.11. Authorization: Each party represents and warrants that it has the power and ability to enter into this Agreement, to grant the rights granted herein, and to perform the duties and obligations herein described.
- 12.12. Confidentiality: All documentation related to this Agreement will become the property of Adams County. All documentation maintained or kept by Adams County shall be subject to the Colorado Open Records Act, C.R.S. 24-72-201 *et seq.* ("CORA"). The County does not guarantee the confidentiality of any records.

13. AMENDMENTS, CHANGE ORDERS OR EXTENSIONS:

- 13.1. Amendments or Change Orders: The County may, from time to time, require changes in the scope of the services of the Contractor to be performed herein including, but not limited to, additional instructions, additional work, and the omission of work previously ordered. The Contractor shall be compensated for all authorized changes in services, pursuant to the applicable provision in the Solicitation, or, if no provision exists, pursuant to the terms of the Amendment or Change Order.
- 13.2. Extensions: The County may, upon mutual written agreement by the parties, extend the time of completion of services to be performed by the Contractor.

14. COMPLIANCE WITH C.R.S. § 8-17.5-101, ET. SEQ. AS AMENDED 5/13/08:
Pursuant to Colorado Revised Statute (C.R.S.), § 8-17.5-101, *et seq.*, as amended May 13, 2008, the Contractor shall meet the following requirements prior to signing this Agreement (public contract for service) and for the duration thereof:

- 14.1. The Contractor shall certify participation in the E-Verify Program (the electronic employment verification program that is authorized in 8 U.S.C. § 1324a and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or its successor program) or the Department Program (the employment verification program established by the Colorado Department of Labor and Employment pursuant to C.R.S. § 8-17.5-102(5)) on the attached certification.
- 14.2. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- 14.3. The Contractor shall not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
- 14.4. At the time of signing this public contract for services, the Contractor has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or the Department Program.

- 14.5. The Contractor shall not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this public contract for services is being performed.
- 14.6. If the Contractor obtains actual knowledge that a subcontractor performing work under this public contract for services knowingly employs or contracts with an illegal alien, the Contractor shall: notify the subcontractor and the County within three (3) days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the previous paragraph, the subcontractor does not stop employing or contracting with the illegal alien; except that the Contractor shall not terminate the contract with the subcontractor if during such three (3) days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
- 14.7. Contractor shall comply with any reasonable requests by the Department of Labor and Employment (the Department) made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
- 14.8. If Contractor violates this Section, of this Agreement, the County may terminate this Agreement for breach of contract. If the Agreement is so terminated, the Contractor shall be liable for actual and consequential damages to the County.

REMAINDER OF THIS PAGE LEFT BLANK INTENTIONALLY

IN WITNESS WHEREOF, the Parties have caused their names to be affixed hereto:

County Manager

Raymond H. Gonzales

Date

Contractor

Signature

Date

Printed Name

Title

Attest:

Josh Zygielbaum, Clerk and Recorder

Deputy Clerk

Approved as to Form:

Adams County Attorney's Office

NOTARIZATION OF CONTRACTOR'S SIGNATURE:

COUNTY OF _____)

STATE OF _____)SS.

Signed and sworn to before me this ____ day of _____, 2019,

by _____,

Notary Public

My commission expires on: _____



**2018 Annual
Report
Adams County
Mosquito
Control Program**



Official documents located at vdcnetdirect.com

Vector Disease Control International
7000 North Broadway Suite 108
Denver, CO 80221
Phone 303-428-5908
Website: www.vdci.net/Colorado

ADAMS COUNTY MOSQUITO CONTROL PROGRAM ANNUAL REPORT 2018

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THE ADAMS COUNTY MOSQUITO CONTROL PROGRAM MISSION STATEMENT

The need to protect residents and visitors from the health risks, severe annoyance, and discomfort associated with biting mosquitoes is a chronic annual problem. The primary objective of the Adams County Mosquito Control Program is to suppress the development of larval mosquitoes in wetland and other sites, to monitor and reduce numbers of adult mosquitoes thereby reducing overall mosquito populations to an acceptable low-biting "annoyance level", while reducing the threat of mosquito-borne disease transmission, all at the least possible cost, and with the least possible impact on people and the natural environment.

The focus of the Adams County Mosquito Management Program is to employ trained field technicians to suppress populations of larval mosquitoes in aquatic habitats. VDCI technicians utilize bacterial larvicides that reduce mosquitoes without harming non-target organisms. Additionally, monitoring of adult mosquito populations is an essential component of an Integrated Mosquito Management (IMM) program. Surveillance trapping performed provides data to assess West Nile Virus (WNV) infection rates, as well as the need for adult mosquito control measures. Data driven response can reduce the threat of disease transmission and annoyance associated with mosquitoes, while reducing the necessity for large amounts of products to be applied.

VDCI OBJECTIVES

The Adams County Mosquito Management Program, operated by VDCI, has developed into one of the foremost environmentally sensitive and technologically advanced IMM programs in the United States. Additionally, VDCI has fostered cooperative efforts for mosquito control and epizootic response between surrounding municipalities, counties and homeowners associations, as well as the Center for Disease Control Vector-Borne disease unit in Fort Collins (CDC), the Colorado Department of Public Health (CDPHE), the Tri-County Health Department and Colorado State University (CSU) to respond to mosquito-borne disease and annoyance. Data obtained from VDCI is utilized by these entities when evaluating disease risk, a public-private data sharing partnership in the interest of public health which is unrivaled elsewhere in the country.

CONTRACTOR COMMITMENT

Vector Disease Control International (VDCI) is a large-scale contractor specializing in complete integrated mosquito control services. VDCI utilizes an aggressive preemptive Integrated Pest Management (IPM) approach to controlling mosquito populations within contracted areas. VDCI, established in 1992, is the largest private company specializing in mosquito control in Colorado.



VDCI currently has programs throughout the state of Colorado including municipalities, counties, HOA's, Indian Reservations, and numerous others. Geographically, VDCI reaches from the Ute Mountain Ute Reservation in the southwest corner of the state to the northeast. VDCI has programs in several mountain areas including the Gunnison Valley, the I-70 corridor, and parts of the upper Colorado River valley.

With well over a decade of experience monitoring WNV in Colorado, it is clear that limiting mosquito exposure is the best way to reduce the risk of disease. A well-developed mosquito management program is only part of the picture, and VDCI also emphasizes the need for personal action and educational outreach programs. *Culex tarsalis*, our primary WNV vector in the state, is more abundant today than in the past, due to current land use practices. VDCI is committed to providing top quality service via data driven management and education outreach in an effort to minimize WNV and reduce mosquito annoyance in communities where we live and work.

VDCI, as the contractor for Adams County, uses demonstrated scientific IPM methods of survey, inspection, diagnosis, biological/biochemical controls, and limited low-toxicity pesticide applications to professionally accomplish desired control results. All of the methods and materials used by VDCI have been sanctioned and registered by the Environmental Protection Agency (EPA), the CDC, the Colorado Department of Agriculture (CDA), and the American Mosquito Association (AMA).

2018 SEASON PERSPECTIVE

At VDCI we have come to expect each Colorado summer to present a unique set of temperature, precipitation, irrigation, and human interactions that combine to create new and different challenges in both mosquito control and mosquito-borne disease proliferation and control.



According to the National Weather Service May 2018 was the 8th warmest May on record with below average precipitation. 1.86 inches of rain fell in May, which is 0.26 inches below the monthly average of 2.12. No snowfall was recorded. The average temperature for the month was 61.4 degrees, 4.3 degrees above normal. Four days reached or exceeded temperatures of 90 degrees or more, a new record for the month.

June witnessed below average rainfall and warmer than average temperatures. The month's average temperature was 72.4 degrees, 5.0 degrees above normal, with sixteen days reaching or exceeding 90 degrees, making June 2018 the 7th warmest June on record. 105 degrees was recorded on June 28th, which tied Denver metro's all time highest temperature. Precipitation for June was just 0.43 inches, 1.55 inches below the average of 1.98 inches. 0.25 inches of that total fell on June 17th.

July witnessed significant below average rainfall and slightly warmer than average temperatures. The month's average temperature was 75.3 degrees, 1.1 degrees above normal, with nineteen days reaching or exceeding 90 degrees. 99 degrees was recorded on the 3rd. Precipitation for July was just 1.03 inches, 1.13 inches below the monthly average of 2.16 inches. Most of that fell in the final seven to ten days of the month in the form of seasonal monsoonal precipitation. 0.43 inches of rain occurred on the 23rd alone.

August again witnessed below average rainfall and near normal temperatures. The month's average temperature was 72.4 degrees, 0.1 degrees below the normal of 72.5 degrees, with eleven days reaching or exceeding 90 degrees. 95 degrees was recorded on the 4th, the warmest day of the month. Precipitation for August was 0.93, 0.76 inches below the monthly average of 1.69 inches. 0.38 inches of rain fell on the 14th, the most for any single day of the month.

The 2018 season ended with a September that saw above average temperatures and below average precipitation. An average of 67.8 degrees was recorded for the month, 4.4 degrees above normal. Lows of 36 degrees was recorded on the 25th and 29th. 0.18 inches of rain fell, 0.78 inches below normal.

2018 Field Activities

Hiring of seasonal technicians began in March and continued into May. VDCI's Annual Field Technician Classroom Training Day took place on Monday May 21st with dozens of new and returning field technicians in attendance. Field training by VDCI management and veteran employees began afterwards and within a week VDCI was fully staffed and in the field. Larval operations began winding down as weekly traps counts diminished throughout August and ended altogether by mid-September.

Adams County saw a total of 731 site inspections in 2018 of which 463 or 63% were wet. Of those, 190 sites, or 41%, were subsequently treated for breeding. A total of 10.5 acres were treated in 2018.

WEST NILE VIRUS 2018

Background

West Nile Virus (WNV) was first identified in Uganda in 1937. Since that time, activity has been documented throughout Africa, Europe, West and Central Asia, and areas of the Middle East. The virus made its first appearance to North America in 1999 when it was documented in New York City. WNV comes from a family of viruses known as Flaviviridae and is closely related to other viruses which can have severe effects on both humans and animals such as Japanese Encephalitis and St. Louis encephalitis.

WNV has a wide range of symptoms which can range from mild flu like symptoms to death. Of humans affected, nearly 80% will show no symptoms at all. The majority of people who do show symptoms will usually suffer from flu like symptoms. However, approximately 1% of people will develop much more severe symptoms including meningitis (inflammation of the linings surrounding the brain and spinal cord), encephalitis (inflammation of the brain), or very rarely poliomyelitis which can cause paralysis in parts of the body.

Since the introduction of WNV to the United States in New York City in 1999, the virus has made a complete westward expansion to the West Coast. Starting in the Northeastern parts of the United States, the virus steadily progressed through the South, the Midwest, the Rocky Mountain region and the rest of the nation

Colorado first saw activity of the virus late in the summer of 2002. In 2003 Colorado was the hardest hit state in the country compiling 2,947 human cases and 63 deaths most of which occurred along the Front Range. Totals since then have differed from year to year with no single year surpassing 2003's totals thus far.

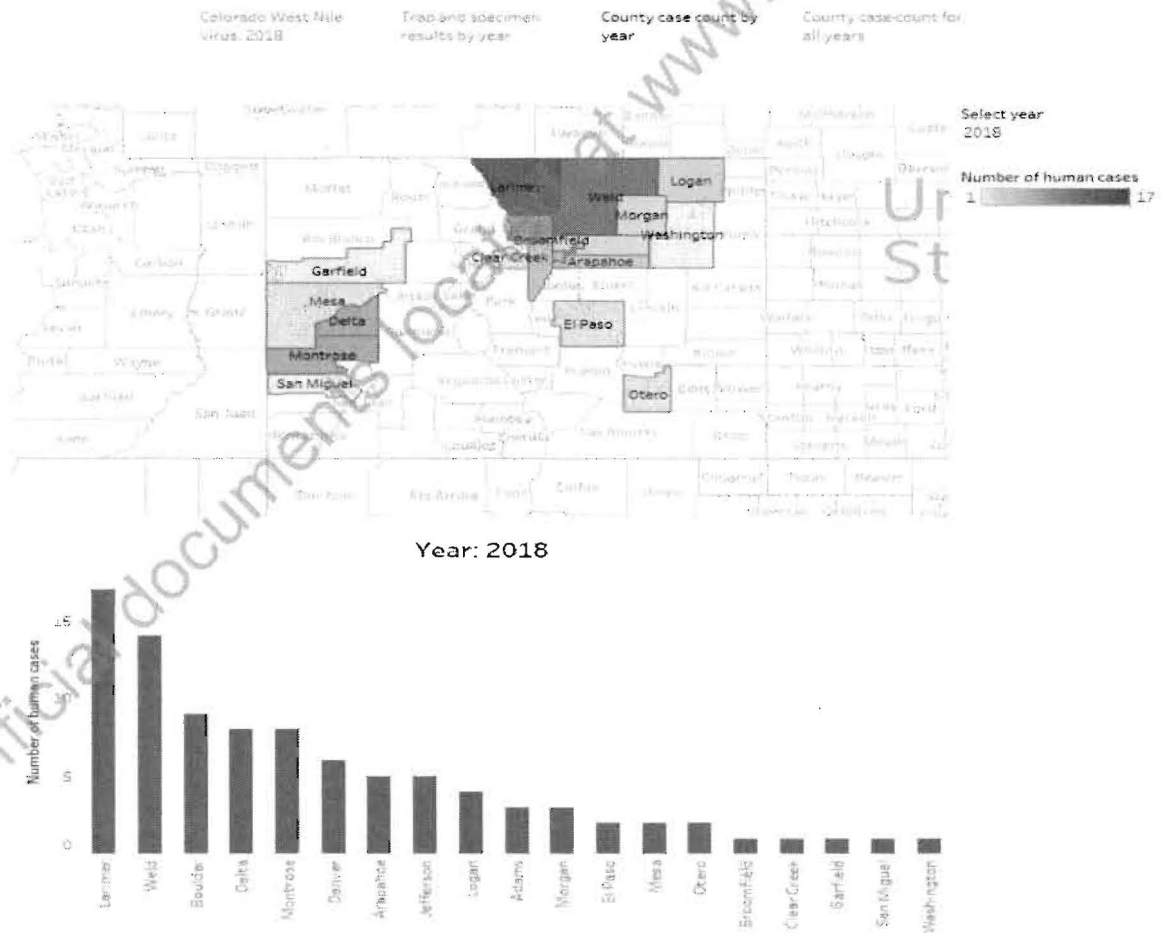
WNV Activity 2018

According to the latest report by the CDPHE there are 93 human WNV cases in Colorado as of this November 9th writing. At this time last year there were 66 cases. Larimer County and Weld County lead the state with seventeen and fourteen cases each respectively while Boulder County has nine. Adams County currently has three. There have been two fatalities related to WNV thus far statewide. Four were reported in 2017. By contrast Colorado had 149 human WNV cases in 2016, 101 in 2015, 118 in 2014 and 322 in 2013.

According to the CDC the U.S has approximately 2,200 human cases of this writing. 1,700 were reported this time in 2017. Nebraska has the highest number of human cases with 234 with North Dakota the second highest at 200 cases and South Dakota third at 168. 102 deaths have thus far been reported nationwide. Last year the country saw 2,149 human cases resulting in 106 deaths at this time.

Human Cases By Colorado County As Counted By The CDPHE

Colorado West Nile virus data

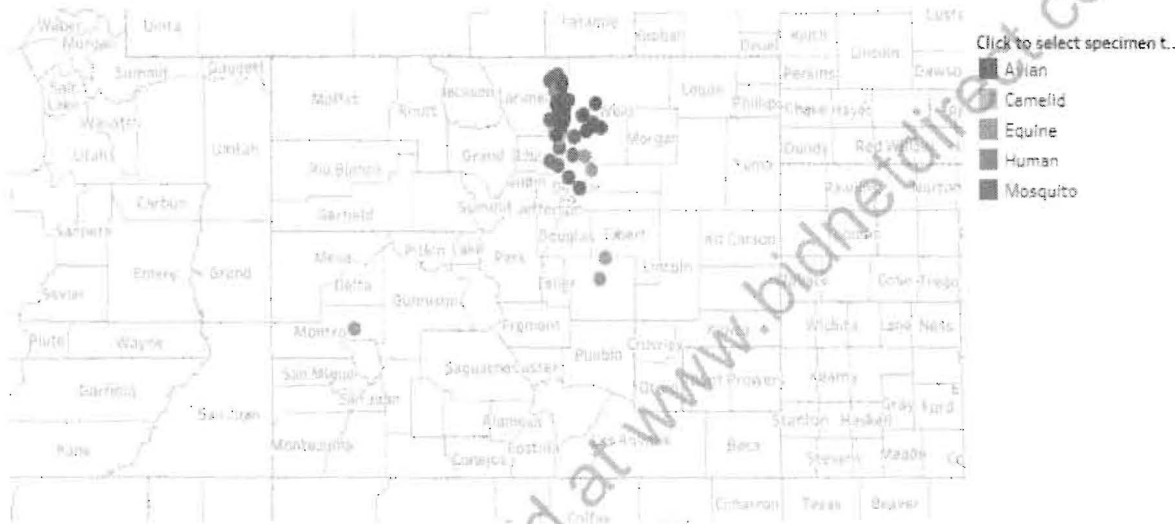


Colorado West Nile Virus Specimen and Incidence Data as of 11/08/2018 CDPHE

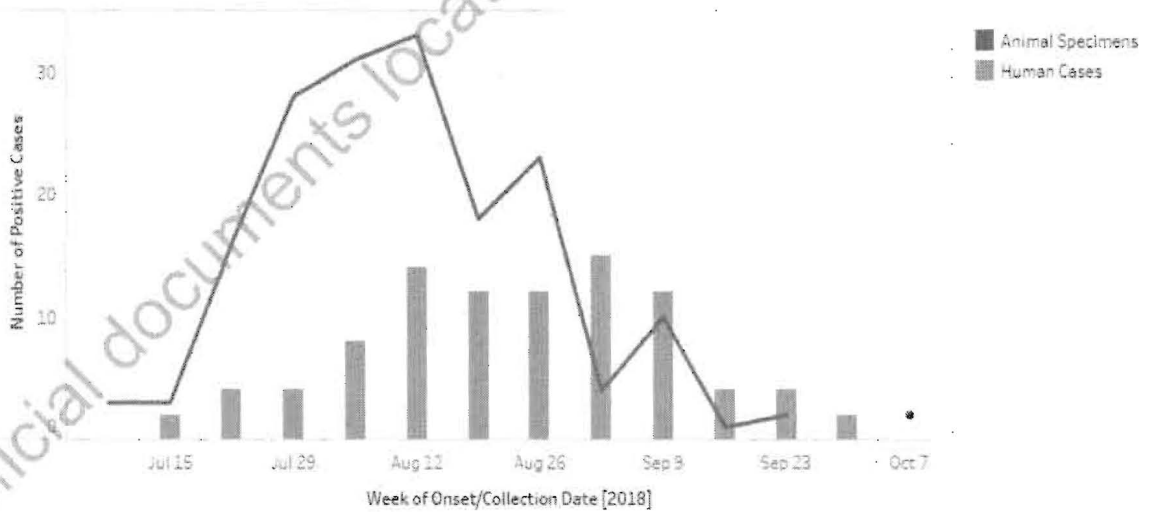
Colorado West Nile virus data

Colorado West Nile virus, 2018 Trap and specimen results by year County case count by year County case count for all years

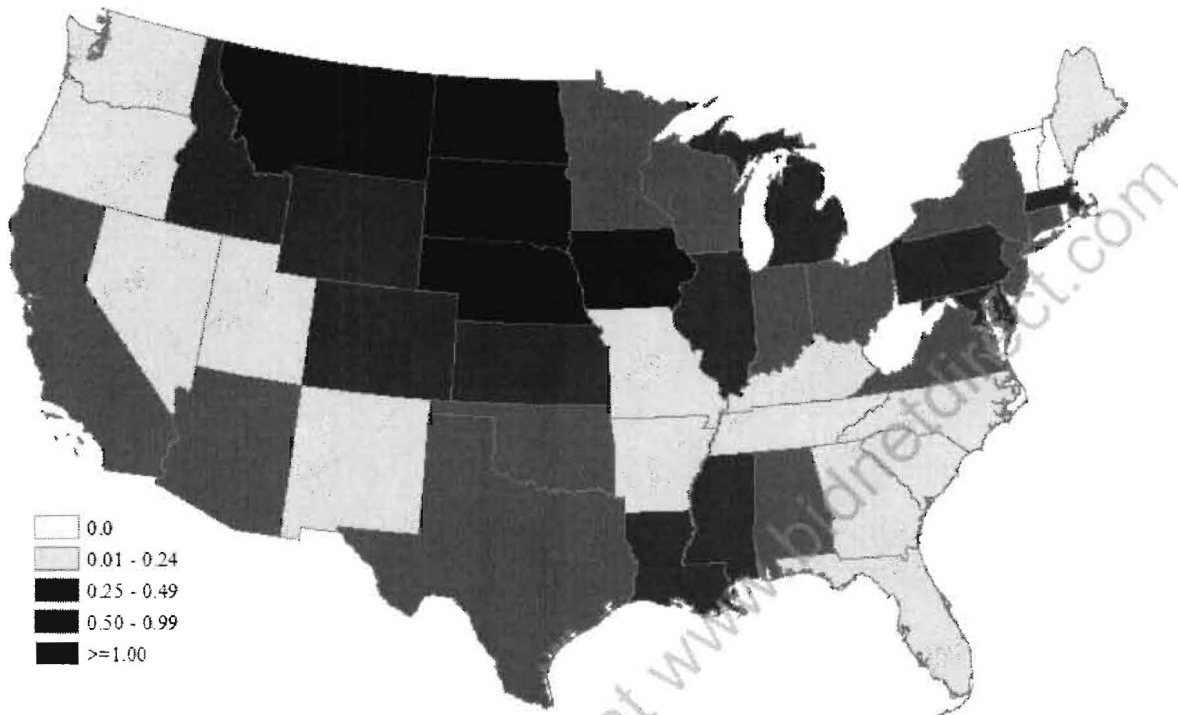
Positive animal and mosquito specimens



Year: 2018



West Nile Neuroinvasive Incidence by State as of 11/08/2018 CDC



LARVAL MOSQUITO CONTROL

Years of research and practical experience have shown that the most effective way to control mosquito populations is through an aggressive Integrated Pest Management (IPM) approach. This approach aims at using a variety of concepts, tools, and products to reduce a pest population to a tolerable level. Translating these ideas to mosquito control, VDCI has found the most environmentally and economically sound approach is through targeting the aquatic larval stage of the mosquito. Targeting this stage prevents the emergence of the adult mosquito and thus the inevitable result of disease and nuisance. Over 93% of VDCI's operational efforts are focused on larval control.

Larval mosquito control can be achieved in several ways including biological, biochemical, chemical, and mechanical means. Although there are a variety of methods of reducing larval populations some may have greater consequence than benefit. Mechanical or habitat modification is a technique which may be used, but the area to be modified and the extent to which the work will affect the surrounding area must be carefully reviewed. Permanent ecological damage may occur if extensive habitat change has taken place.



True biological controls may, too, have costs which outweigh the benefits or competency of their control capacity. Predatory fish serve as a good example of this.

The mosquito fish (*Gambusia affinis*), an introduced species, while an effective predator on mosquito larvae, may have much larger dangers to native fish of Colorado waters. A very aggressive eater and rapid reproducer, *Gambusia* often out-compete their native counterparts. Due to these factors the Colorado Division of Wildlife (CDOW) has placed restrictions on the stocking and use of the fish. However, this year VDCI obtained, stocked and distributed a supply of fathead minnows (*Pimephales promelas*), a native Colorado species. Fish were made available to residents for placement in irrigation or ornamental ponds. In general however, predatory fish and other biological controls such as bird and bats do not provide sufficient control of mosquito populations to be used as the sole mechanism. Other methods must be used to gain adequate larval mosquito population reductions.

VDCI's favored method of larval mosquito control is through bacterial bio-rational products. The main product used by VDCI is a variety of bacteria (*Bacillus thuringiensis var. israeliensis*). *Bti* as it is known has become the cornerstone of mosquito control programs throughout the world. The benefits include its efficacy and lack of environmental impacts. When used properly successful control without impact to aquatic invertebrates, birds, mammals, fish, amphibians, reptiles, or humans can be achieved.

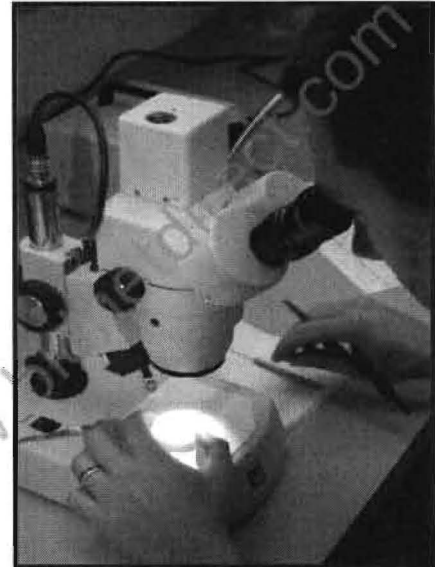
Another bacterial product closely related to *Bti* is *Bacillus sphaericus* (*Bs*). In addition to all of the benefits of *Bti*, *Bs* is by definition a true biological control agent in that it remains in the system through multiple broods, or generations, of mosquitoes. Unfortunately the residual benefit of the control comes at a cost in price of approximately three times that of *Bti*.

Other larval control products include a growth regulators (methoprene, in the form of the product Altosid), mineral oils (Bonide, BVA), and an organophosphate (Abate). Methoprene is a synthetic copy of a juvenile growth hormone in larval mosquitoes. The hormone prevents normal development of the adult mosquito in the pupal stage eventually causing death. While a good control product, the cost is prohibitive to be the predominant product in a large scale program. Abate, the one chemical larval control product VDCI uses, serves as an effective product, but label restrictions limit its use in many areas. VDCI limits the use of chemical larvicides to areas with little biodiversity, such as road side ditches, or areas which chronically produce large amounts of mosquitoes and use them only as a last resort when other solutions are not present. The benefits of these products are the availability of 30 and 150 day formulations. Mineral oil is the only product effective on the pupal stage and therefore is an essential tool when pupae are found.

VDCI constantly strives to improve its operations. We utilize "CMMS" (Computerized Mosquito Management System) utilizes historical data to analyze and identify areas and sites of particular importance. Targeted inspections then allow for resources to be allocated efficiently.

VDCI SURVEILLANCE LABORATORY

Information about mosquito abundance and species identity is critical to a successful mosquito control program. VDCI employs two kinds of traps to monitor mosquito populations. The most commonly used is the CDC light trap which uses carbon-dioxide from dry ice as bait to attract female mosquitoes seeking a blood meal from a breathing animal. Once attracted by the CO₂, the mosquitoes are lured by a small light to a fan that pulls them into a net for collection. The Gravid Trap uses a tub of highly-organic water as bait to attract female mosquitoes that are looking for a place to lay their eggs. A fan placed close to the water surface forces mosquitoes that come to the water into a collection net. Once back in the laboratory, the contents of the trap nets are counted and identified by technicians trained to recognize the Colorado mosquito species.



In 2018, VDCI monitored a statewide network of hundreds of weekly trap sites, collecting adult mosquitoes that were then counted and identified to species by the VDCI Surveillance Laboratory. While individual traps provide only limited information, trap data is interpreted in the context of historical records for the same trap site, going back in time more than a decade. Individual traps are also compared to other traps from around the region that were set on the same night and therefore exposed to similar weather conditions. Technicians working in the Surveillance Laboratory at VDCI are trained to provide accurate species-level identification of mosquito specimens, for both adults and larvae. More than 50 mosquito species are believed to occur in Colorado, with dozens identified from samples processed during the 2018 season from across the state.



Additionally, the VDCI Surveillance Laboratory conducts an intensive larval identification program with larval mosquito samples collected by I&L technicians prior to larviciding being identified to species. This information is now invaluable in targeting mosquito control efforts as we gain a greater understanding of the habitat types preferred by Colorado mosquito species and the seasonality of these habitats as sites for mosquito development.

Specimens and data collected from these traps and larval identification are used in:

- Determining effectiveness of larval control efforts. Each mosquito species prefers specific kinds of habitats for larval development. If a trap includes large numbers, it could indicate the presence of an unknown larval habitat and, based on the species identification and known habitat preference for that species, direct field technicians as to possible sources of the mosquitoes collected.
- Determining larval and adult mosquito species which helps illustrate the threat of mosquito-borne disease amplification and transmission.
- Determining where adult control efforts were necessary. While mosquito eradication is impossible, significant population reduction is achievable. In places where larval control was insufficient, especially in neighborhoods where adult mosquitoes migrated in from larval sources outside of the control area, it may be necessary to use adulticide methods such as ULV truck fogging or barrier sprays of nearby harborage areas. Trap counts that were in excess of an acceptable threshold for the area would trigger adult control measures.
- Surveillance for Mosquito-borne Disease. Historically, VDCI efforts were targeted primarily at controlling mosquito nuisance problems with limited disease surveillance. However, since the arrival of the West Nile Virus in Colorado in August of 2002, the paradigm has shifted toward disease prevention and control. Accurate species identification of the mosquitoes in the traps is important when monitoring species population trends. It also is necessary for evaluating whether a population spike represents an actual increase in disease transmission potential or only an increased nuisance level.

CDC Surveillance Light Trap Data Comparison

Traps in Adams County collected a total of 9,416 mosquitoes in 2018. The percent composition of mosquitoes collected included 45.0% (4,235) *Culex* spp., 53.7% (5,059) *Aedes/Ochlerotatus* spp., and 1.3% (120) *Culiseta* spp. mosquitoes.

2018 ADULT CONTROL

The goal of VDCI is to provide all residents with the best options for safe, effective, modern mosquito management. The primary emphasis of our mosquito management program is to control mosquitoes in the larval stage. This environmentally focused program maintains adulticiding as a final resort when adult mosquito populations surpass nuisance or risk thresholds. Mosquito surveillance results are used to make data driven decisions regarding areas that need to be sprayed for adult mosquito control. Such spraying is targeted to specific sectors determined by said data thereby reducing the size and frequency of spraying a given area.

VDCI uses all available data from CDC light traps, Mosquito Hotline annoyance calls, and field technician reports to focus adult mosquito control efforts on specific, very limited "targeted" areas. In parts of the community where high numbers of mosquito annoyance calls are received, "floater" CDC light traps are set to evaluate adult population levels and species make-up. In most cases, a direct correlation is evident between areas with high complaint calls and high trap counts. While this correlation allows us to focus adult control in these areas, the emphasis is placed on finding the source of breeding and continued larval control measures.

VDCI uses state of the art technology, calibrated application timing, and least-toxic products to minimize all non-target impact. All adult mosquito control is accomplished using calibrated Ultra Low Volume (ULV) equipment and performed after dusk. This type of equipment produces droplets averaging 12 microns in diameter and allows for a minimal amount of product to be put into the environment. These treatments take place in the evening when mosquitoes are flying in greater numbers and non-target activity is greatly reduced. Using this application technique, the overall goal of minimal environmental impact and effective adult control is achieved in the targeted area.

In 2018 VDCI utilized the water-based product AquaKontrol 30-30 for ULV adult mosquito control. This uses the highly effective pyrethroid Permethrin as their active ingredient, while the water-base provides a much more environmentally sound solution to traditional oil-based adulticides. Daytime backpack barrier applications using the product Talstar Pro and utilizing the pyrethroid Bifenthrin are also effective in controlling adult mosquitoes.

A total of 109.5 miles of adulticide applications took place in Adams County in 2018.

TECHNOLOGY

VDCI has strived to improve the programs offered to its customers with novel and progressive advancements, continually evaluating and implementing new products and new technologies, not only with regard to control efforts but also for data processing and information reporting. VDCI shares the belief that timely information should be accessible to customers and residents, so that the people who fund the programs can access the work that is being performed. VDCI also believes that the ability to access the data will improve both the resident's and municipality's ability to stay informed about West Nile Virus risk in their community.

VDCI WEBSITE

Our website, www.vdci.net/colorado, is the leading website in Colorado when it comes to providing up-to-date, factual, and comprehensive information on, and links to, mosquito biology and control, mosquito-borne diseases, pesticide toxicology information, and a wealth of topics relating to mosquitoes. Our website continues to be an integral tool for dissemination of operational data to the citizens we serve, minimizing the resources and time required by the city and its employees for answering for fielding public inquiries.



PUBLIC OUTREACH & DATA DISSEMINATION

VDCI strongly believes that strong Public Outreach programs, quality Data Dissemination and outstanding Customer Service standards are the keys to success in providing large-scale municipal mosquito control programs. Citizen feedback, inquiry, and satisfaction surveys aid in evaluating the effectiveness of our program. VDCI constantly looks for ways to better serve the communities we work with and appreciates the citizen involvement in improving the programs that we offer. We have clearly demonstrated this commitment by proactively incorporating numerous innovative programs, activities and services into our programs. No inquiries were reported from Adams County in 2018.

CALL NOTIFICATION & SHUTOFF SYSTEM

VDCI maintains a comprehensive Call Notification & Shutoff database, and will notify residents on this list whenever ULV adulticide spray applications will be conducted within 2 blocks of their property or within the effective ULV spray drift distance (300-500 ft. depending on wind speed and direction). All Shutoff locations are updated annually. Call & Shutoff forms are available online and may be submitted via the VDCI website or by mail and fax.

SUMMARY

The summer of 2018 proved to be a generally mild one with no dramatic swings in either temperatures or precipitation. Overall adult mosquito activity for each of those months corresponded with their respective weather trends with short lived, often geographically isolated spikes in adult mosquito populations following brief periods of heavy precipitation.

Human West Nile Virus counts in 2018 have already exceeded 2017 totals in Colorado although as of this writing deaths are down 50% from last year and 2018 totals are still far below those of most years prior to 2017. It should also be noted that much of this increase comes from areas of the state with little if any mosquito control on either a county or localized basis. It is therefore extremely important for customers who already have Integrated Mosquito Management programs the likes of which VDCI strives to implement to the utmost of our capabilities to maintain these going forward into the future.

VDCI wishes to thank all Adams County staff, officials and residents for their continuing support and we look forward to providing Adams County with mosquito control services in 2019 and beyond.

by REPORT DATE: 1/8/2018 to 11/8/2018

by ACCOUNT: AD

	Total Site Inspections	No. Wet Sites	Percentage Wet Sites	No Sites Treated	Percentage Breeding*	Total Acres Treated
Adams County	731	463	63 %	190	41 %	10.5

* (Sites Treated/Wet Sites)

by REPORT DATE: 1/8/2018 to 11/8/2018

by ACCOUNT: AD

Site ID	Visits	Wet Sites	Dips w/ Larvae	Acres	Vectobac	Vectolex	Altosid	Oil
AD 0006	1	1	100.0 %	0	0.0 %	0.0	0.0	0.0
AD 0013	4	4	100.0 %	2	50.0 %	0.0	0.0	0.0
ad 0013	4	4	100.0 %	2	50.0 %	0.0	0.1	0.0
ad 0052	1	1	100.0 %	0	0.0 %	0.0	0.0	0.0
ad 0056	2	2	100.0 %	2	100.0 %	0.0	0.0	0.0
AD 0056	5	5	100.0 %	2	40.0 %	0.0	0.0	0.0
ad 0058	1	1	100.0 %	0	0.0 %	0.0	0.0	0.0
AD 0058	6	6	100.0 %	2	33.3 %	0.0	0.0	0.0
AD 0075	4	4	100.0 %	3	75.0 %	1.0	6.0	0.0
AD 0075	3	3	100.0 %	2	66.7 %	0.0	0.1	0.0
AD 0087	1	1	100.0 %	1	100.0 %	0.2	0.6	0.0
AD 0116	10	10	100.0 %	10	100.0 %	0.2	0.7	0.1
ad 0116	2	2	100.0 %	2	100.0 %	0.0	0.0	0.0
ad 0118	4	4	100.0 %	4	100.0 %	0.3	0.7	0.0
AD 0118	7	7	100.0 %	4	57.1 %	0.1	0.1	0.5
AD 0162	1	1	100.0 %	0	0.0 %	0.0	0.0	0.0
AD 0163	1	1	100.0 %	1	100.0 %	0.0	0.0	0.0
AD 0200	2	2	100.0 %	1	50.0 %	0.0	0.0	0.0
ad 0200	7	5	71.4 %	0	0.0 %	0.0	0.0	0.0
AD 0201	1	1	100.0 %	1	100.0 %	0.0	0.0	0.0
ad 0201	10	6	60.0 %	0	0.0 %	0.0	0.0	0.0
AD 0202	2	2	100.0 %	2	100.0 %	0.5	1.3	0.0
AD 0202	10	10	100.0 %	3	30.0 %	0.0	0.1	0.0
AD 0203	9	7	77.8 %	1	11.1 %	0.0	0.2	0.0
AD 0205	9	2	22.2 %	0	0.0 %	0.0	0.0	0.0
AD 0206	8	2	25.0 %	0	0.0 %	0.0	0.0	0.0
AD 0207	8	2	25.0 %	0	0.0 %	0.0	0.0	0.0
AD 0208	8	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0209	3	3	100.0 %	3	100.0 %	0.6	2.0	0.0
ad 0209	7	7	100.0 %	3	42.9 %	0.1	1.0	0.0
ad 0219	1	1	100.0 %	1	100.0 %	0.0	0.1	0.0
AD 0219	10	10	100.0 %	6	60.0 %	0.1	0.3	0.1
ad 0237	1	1	100.0 %	1	100.0 %	0.1	0.6	0.0
AD 0237	10	10	100.0 %	4	40.0 %	0.1	0.4	0.0
ad 0254	1	1	100.0 %	0	0.0 %	0.0	0.0	0.0
AD 0254	4	4	100.0 %	1	25.0 %	0.0	0.0	0.0
ad 0296	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0297	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0298	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0299	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0300	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0

by REPORT DATE: 1/8/2018 to 11/8/2018

by ACCOUNT: AD

Site ID	Visits	Wet Sites	Dips w/ Larvae	Acres	Vectobac	Vectolex	Altosid	Oil
ad 0301	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0302	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0303	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0304	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0305	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0306	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0307	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0308	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0309	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0310	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0312	1	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0312	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0313	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0314	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0315	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0316	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0317	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0318	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0319	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0320	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0322	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0323	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0362	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0363	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0364	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0365	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0366	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0367	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0368	3	1	33.3 %	0	0.0 %	0.0	0.0	0.0
ad 0369	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0370	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0371	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0372	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0373	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0374	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0375	4	1	25.0 %	0	0.0 %	0.0	0.0	0.0
ad 0376	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0377	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0378	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0379	4	0	0.0 %	0	0.0 %	0.0	0.0	0.0
ad 0380	3	0	0.0 %	0	0.0 %	0.0	0.0	0.0

by REPORT DATE: 1/8/2018 to 11/8/2018

by ACCOUNT: AD

Site ID	Visits	Wet Sites	Dips w/ Larvae	Acres	Vectobac	Vectolex	Altosid	Oil
ad 0381	4	1 25.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0382	4	0 0.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0383	4	1 25.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0384	4	0 0.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0395	1	1 100.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0395	2	2 100.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0401	8	8 100.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0402	1	1 100.0 %	1 100.0 %	0.0	0.0	0.0	0.0	0.0
AD 0402	10	9 90.0 %	7 70.0 %	0.0	0.1	0.0	0.0	0.0
AD 0403	8	8 100.0 %	3 37.5 %	0.2	1.2	0.0	0.0	0.0
ad 0416	1	0 0.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0416	5	0 0.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0417	7	0 0.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0468	1	1 100.0 %	1 100.0 %	0.3	5.0	0.0	0.0	0.0
AD 0468	11	11 100.0 %	6 54.5 %	1.3	4.1	3.0	0.0	0.0
ad 0478	1	1 100.0 %	1 100.0 %	0.0	0.0	0.0	0.0	0.0
ad 0478	7	7 100.0 %	7 100.0 %	0.0	0.3	0.0	0.0	0.0
ad 0482	1	1 100.0 %	1 100.0 %	0.1	1.0	0.0	0.0	0.0
AD 0482	11	7 63.6 %	5 45.5 %	0.0	0.1	0.0	0.0	0.0
AD 0492	9	7 77.8 %	1 11.1 %	0.0	0.0	0.0	0.0	0.0
AD 0493	11	6 54.5 %	4 36.4 %	0.0	0.1	0.0	0.0	0.0
ad 0494	8	8 100.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
ad 0500	1	1 100.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0501	6	4 66.7 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0506	1	1 100.0 %	1 100.0 %	0.0	0.1	0.0	0.0	0.1
AD 0506	8	8 100.0 %	4 50.0 %	0.0	0.1	0.0	0.0	0.0
ad 0537	4	4 100.0 %	4 100.0 %	1.1	5.4	0.0	0.0	0.0
AD 0537	8	8 100.0 %	8 100.0 %	0.0	0.1	0.1	0.0	0.0
AD 0538	2	2 100.0 %	2 100.0 %	0.4	1.0	0.0	0.0	0.0
ad 0538	10	10 100.0 %	4 40.0 %	0.0	0.0	0.0	0.0	0.0
AD 0539	1	1 100.0 %	1 100.0 %	0.0	0.0	0.0	0.0	0.0
ad 0539	8	8 100.0 %	0 0.0 %	0.0	0.0	0.0	0.0	0.0
AD 0540	1	1 100.0 %	1 100.0 %	0.1	0.4	0.0	0.0	0.0
AD 0540	10	10 100.0 %	2 20.0 %	0.0	0.0	0.0	0.0	0.0
AD 0541	3	3 100.0 %	3 100.0 %	0.6	1.9	0.0	0.0	0.1
AD 0541	9	9 100.0 %	5 55.6 %	0.1	0.6	0.0	0.0	0.1
ad 0553	4	4 100.0 %	4 100.0 %	1.8	7.3	0.0	0.0	1.0
AD 0553	8	5 62.5 %	2 25.0 %	0.3	1.3	0.0	0.0	0.3
AD 0563	9	8 88.9 %	1 11.1 %	0.0	0.0	0.0	0.0	0.0
AD 0587	9	8 88.9 %	1 11.1 %	0.0	0.0	0.0	0.0	0.0
AD 0590	1	1 100.0 %	1 100.0 %	0.0	0.0	0.0	0.0	0.0

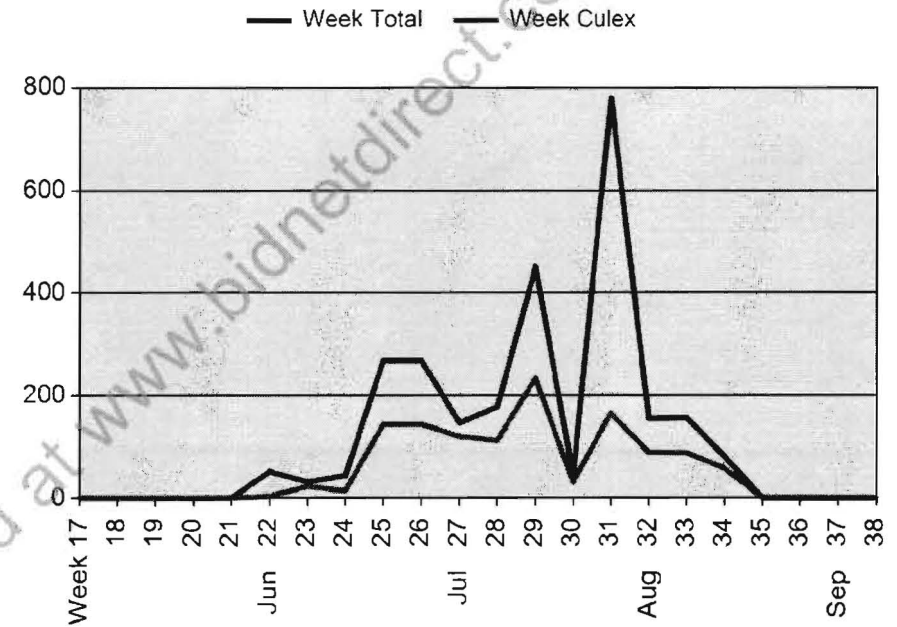
2018 Adams County Light Trap Composite Data

Total number of trap/nights set: 43
 Total number of mosquitoes collected: 9,416
 Average mosquitoes per trap/night: 219
 Average Culex per trap/night: 98

Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	283	3.0 %
<i>Aedes (Oc.) increpitus</i>	3	0.0 %
<i>Aedes (Oc.) melanimon</i>	42	0.4 %
<i>Aedes (Oc.) nigromaculis</i>	2	0.0 %
<i>Aedes (Oc.) trivittatus</i>	142	1.5 %
<i>Aedes vexans</i>	4572	48.6 %
<i>Aedes (Oc.) sollicitans</i>	15	0.2 %
<i>Anopheles freeborni</i>	2	0.0 %
<i>Culex erythrothorax</i>	21	0.2 %
<i>Culex pipiens</i>	987	10.5 %
<i>Culex salinarius</i>	761	8.1 %
<i>Culex tarsalis</i>	2466	26.2 %
<i>Culiseta inornata</i>	120	1.3 %

Seasonality



Genus proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	5,059	53.7 %
<i>Anopheles</i>	2	0.0 %
<i>Culex</i>	4,235	45.0 %
<i>Culiseta</i>	120	1.3 %
Other	0	0.0 %



AD-07: Van-Aire Skypark

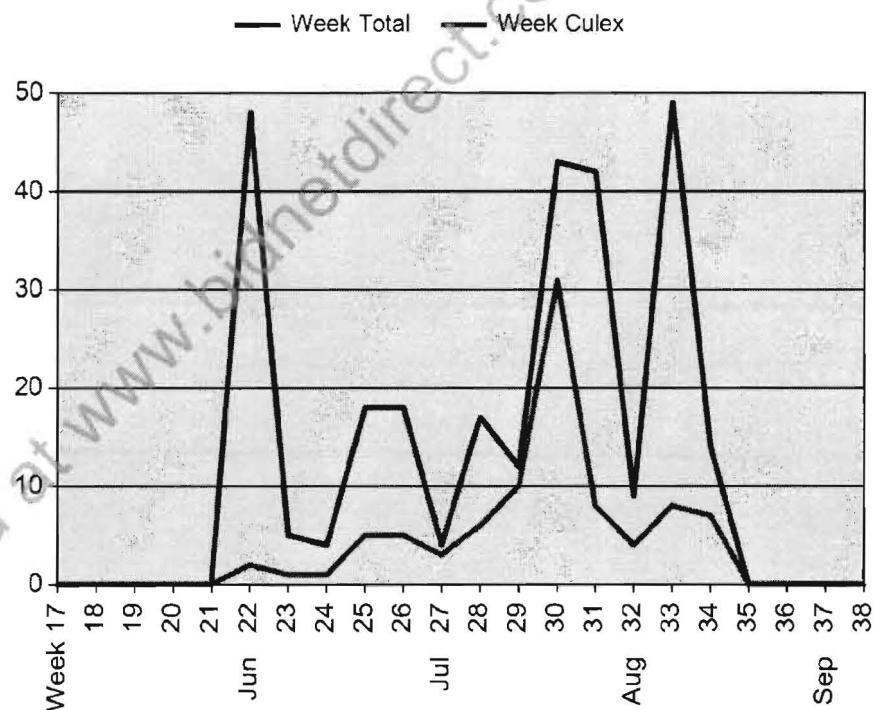
Season: 2018
Trap Type: Light/CO2
Location: Elk Circle north of 156th Avenue
GPS: N39° 58.915', W104° 42.205'

Total number of trap/nights set: 12
Total number of mosquitoes collected: 265
Average mosquitoes per trap/night: 22
Average Culex per trap/night: 7

Species collected and abundance:

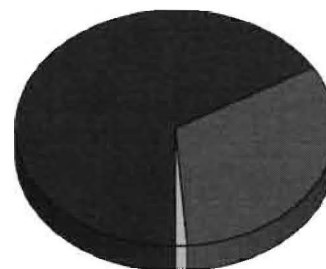
Species	Count	Percentage
<i>Aedes (Oc.) dorsalis</i>	96	36.2 %
<i>Aedes (Oc.) increpitus</i>	3	1.1 %
<i>Aedes vexans</i>	74	27.9 %
<i>Aedes (Oc.) sollicitans</i>	3	1.1 %
<i>Culex pipiens</i>	4	1.5 %
<i>Culex tarsalis</i>	82	30.9 %
<i>Culiseta inornata</i>	3	1.1 %

Seasonality



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	176	66.4 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	86	32.5 %
<i>Culiseta</i>	3	1.1 %
Other	0	0.0 %



Count AEOC
 Count AN
 Count CX
 Count CU
 Count OTHER

AD-08: Riverdale Road at 112th

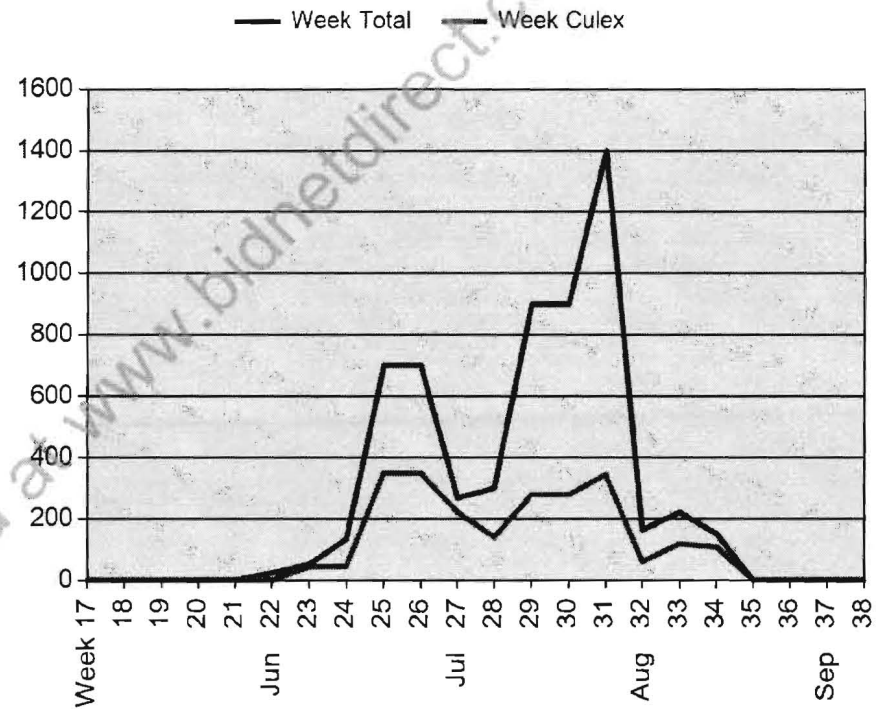
Season: 2018
Trap Type: Light/CO2
Location: Riverdale Road at 112th Avenue
GPS: N39° 54.010', W104° 54.940'

Total number of trap/nights set: 11
Total number of mosquitoes collected: 4,314
Average mosquitoes per trap/night: 392
Average Culex per trap/night: 156

Species collected and abundance:

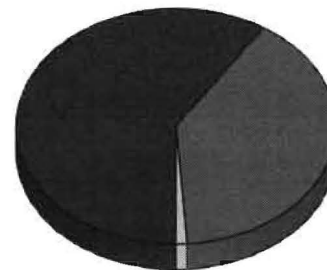
Species	Count	Percentage
<i>Aedes (Oc.) dorsalis</i>	152	3.5 %
<i>Aedes (Oc.) melanimon</i>	17	0.4 %
<i>Aedes (Oc.) nigromaculis</i>	2	0.0 %
<i>Aedes (Oc.) trivittatus</i>	137	3.2 %
<i>Aedes vexans</i>	2235	51.8 %
<i>Aedes (Oc.) sollicitans</i>	12	0.3 %
<i>Culex pipiens</i>	315	7.3 %
<i>Culex salinarius</i>	354	8.2 %
<i>Culex tarsalis</i>	1043	24.2 %
<i>Culiseta inornata</i>	47	1.1 %

Seasonality



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	2,555	59.2 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	1,712	39.7 %
<i>Culiseta</i>	47	1.1 %
Other	0	0.0 %



Count AEOC
 Count AN
 Count CX
 Count CU
 Count OTHER

AD-09: Riverdale Road at 144th

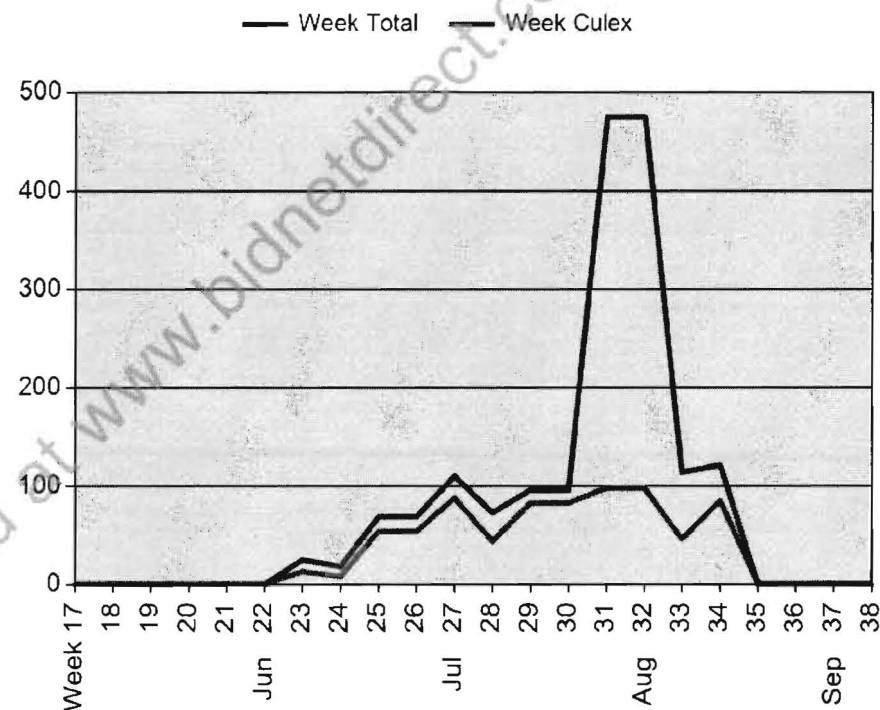
Season: 2018
Trap Type: Light/CO2
Location: near 14400 Riverdale Road
GPS: N39° 57.515', W104° 51.760'

Total number of trap/nights set: 9
Total number of mosquitoes collected: 1,101
Average mosquitoes per trap/night: 122
Average Culex per trap/night: 58

Species collected and abundance:

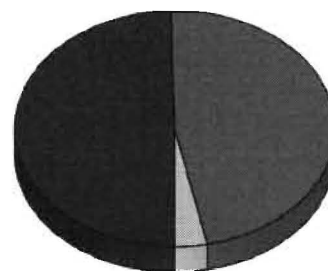
<i>Aedes (Oc.) dorsalis</i>	21	1.9 %
<i>Aedes (Oc.) melanimon</i>	6	0.5 %
<i>Aedes (Oc.) trivittatus</i>	1	0.1 %
<i>Aedes vexans</i>	518	47.0 %
<i>Culex erythrothorax</i>	21	1.9 %
<i>Culex pipiens</i>	112	10.2 %
<i>Culex salinarius</i>	49	4.5 %
<i>Culex tarsalis</i>	337	30.6 %
<i>Culiseta inornata</i>	36	3.3 %

Seasonality



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	546	49.6 %
<i>Anopheles</i>	0	0.0 %
<i>Culex</i>	519	47.1 %
<i>Culiseta</i>	36	3.3 %
Other	0	0.0 %



Count AEOC
 Count AN
 Count CX
 Count CU
 Count OTHER

AD-10: Adams County Fairgrounds

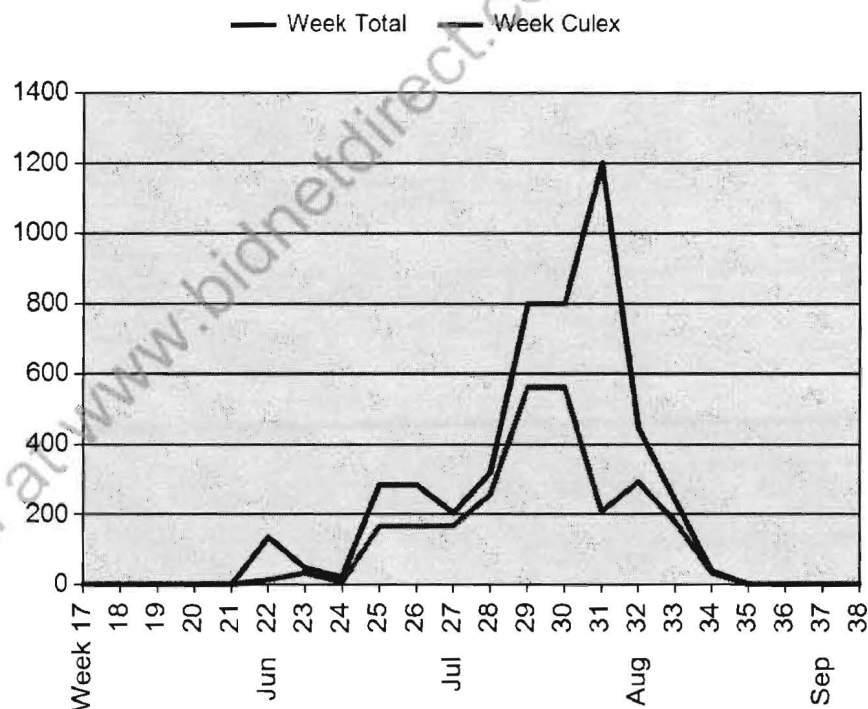
Season: 2018
Trap Type: Light/CO2
Location: Riverdale Golf Course SE, 9755 Henderson Rd.
GPS: N39° 55.795', W104° 52.690'

Total number of trap/nights set: 11
Total number of mosquitoes collected: 3,736
Average mosquitoes per trap/night: 340
Average Culex per trap/night: 174

Species collected and abundance:

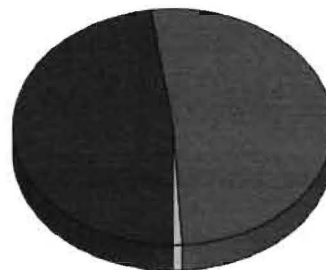
<i>Aedes (Oc.) dorsalis</i>	14	0.4 %
<i>Aedes (Oc.) melanimon</i>	19	0.5 %
<i>Aedes (Oc.) trivittatus</i>	4	0.1 %
<i>Aedes vexans</i>	1745	46.7 %
<i>Anopheles freeborni</i>	2	0.1 %
<i>Culex pipiens</i>	556	14.9 %
<i>Culex salinarius</i>	358	9.6 %
<i>Culex tarsalis</i>	1004	26.9 %
<i>Culiseta inornata</i>	34	0.9 %

Seasonality



Genus Proportions:

Genus	Number	Percent of Total
<i>Aedes/Ochlerotatus</i>	1,782	47.7 %
<i>Anopheles</i>	2	0.1 %
<i>Culex</i>	1,918	51.3 %
<i>Culiseta</i>	34	0.9 %
Other	0	0.0 %



■ Count AEOC
 □ Count AN
 ■ Count CX
 ■ Count CU
 ■ Count OTHER

Vector Disease Control International

Adulticide Data

Customer	Subdiv/Area	Material	Start Time	End Time	Miles
Adams County					
	Truck				
06/06/2018	FAIRGROUNDS	Aqua Kontrol 30 30	22:04:00	22:17:00	3.0
06/13/2018	JOLIET 102 TO DALLAS	Aqua Kontrol 30 30	21:20:00	21:28:00	1.6
06/20/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	22:00:00	22:10:00	2.9
06/27/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	22:03:00	22:15:00	2.8
06/27/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:45:00	21:52:00	2.9
07/02/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	22:10:00	22:19:00	2.6
07/02/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:45:00	22:00:00	2.1
07/11/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	21:30:00	22:00:00	8.7
07/11/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:11:00	21:17:00	0.8
07/18/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	21:30:00	22:00:00	8.7
07/18/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:06:00	21:14:00	1.7
07/25/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	21:00:00	21:09:00	2.7
07/25/2018	FAIRGROUNDS	Aqua Kontrol 30 30	20:48:00	20:56:00	1.8
07/30/2018	FAIRGROUNDS	Aqua Kontrol 30 30	19:50:00	19:56:00	2.0
07/31/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	12:04:00	12:52:00	8.8
08/02/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	23:38:00	12:14:00	8.8
08/08/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	20:36:00	21:13:00	12.6
08/08/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:17:00	21:33:00	2.4
08/08/2018	DALLAS ST	Aqua Kontrol 30 30	22:27:00	22:37:00	2.8
08/15/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	21:45:00	22:13:00	8.7
08/15/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:25:00	21:33:00	1.8
08/22/2018	FAIRGROUNDS	Aqua Kontrol 30 30	21:35:00	21:42:00	1.9
08/28/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	21:51:00	22:21:00	8.7
08/29/2018	RIVERDALE ROAD	Aqua Kontrol 30 30	21:08:00	21:38:00	8.7
		Truck		Sum	109.5
				Avg	4.6
				Min	0.8
				Max	12.6
				Grand Total	109.5

**A MOSQUITO MANAGEMENT SERVICES
RENEWAL PROPOSAL FOR:**

ADAMS COUNTY

April 3, 2019



VECTOR DISEASE CONTROL INTERNATIONAL, LLC

7000 Broadway, Suite 108, Denver, Colorado 80221

Phone: (303) 428-5908

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Operations Manager: Robert Kozar

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**ADAMS COUNTY
2019-2021 INTEGRATED MOSQUITO MANAGEMENT
SERVICES PROPOSAL**

VECTOR DISEASE CONTROL INTERNATIONAL, LLC

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EXECUTIVE SUMMARY

Vector Disease Control International (VDCI) is pleased to offer a proposal for Adams County's Integrated Mosquito Management (IMM) Program. We understand that the County seeks to provide the highest quality public services to its citizens. We believe that VDCI has clearly proven our ability to provide exemplary quality, cost-effective services and strong working relationships with the citizens and employees of Adams County. VDCI hopes to once again serve Adams County for the 2019 through 2021 mosquito seasons.

VDCI is a company built on the foundations of public health, ethics, professionalism, and technical expertise with the goal of creating true partnerships with local municipalities, districts and residents. We strive to improve the quality of human life in communities through education, surveillance and the control of mosquitoes and other disease vectors. VDCI successfully achieves your goals by devising Integrated Mosquito Management programs that are innovative, environmentally sound, and cost effective. At all times, we will conduct business through open communication and partnerships with our customers in a manner that meets their objectives and protects both the environment and the welfare of local residents.

Founded in 1992 with the idea of providing municipalities with the products and services needed to run effective mosquito control programs, VDCI now has 25 years experience in the field of public health and manages Integrated Mosquito Management programs for cities and counties across the country. In January of 2014, VDCI acquired Colorado Mosquito Control, Inc. (CMC) and has been conducting business as Colorado Mosquito Control for legacy CMC customers, since that time. In addition, in June of 2016, VDCI acquired the mosquito control assets of OtterTail Environmental, Inc. (OTE) and currently manages these programs, including Adams County, as VDCI. These acquisitions have allowed VDCI to grow not only in size, but also in experience and performance through the integration of the best aspects of each individual entity. In order to best define who we are and present our company consistently in all geographies, VDCI is phasing out the CMC name, so all contracts will be bid and operated as Vector Disease Control International, LLC.

Vector Disease Control International has designed, implemented, refined and pushed to new technological levels, comprehensive mosquito control and disease surveillance programs based on the sound scientific principles of IPM and the environmental goals of our contracted municipalities. Other important support services offered by VDCI include a diverse informational website, a spray Notification and Shutoff program for citizens, implementation of VDCI's proprietary database, and Geographic Information System software used in daily larval and adult mosquito control operations. These collective services have expanded the scope and depth of the program we offer and have dramatically improved the operations of Adams County's Mosquito Control Program.

The following proposal will expand on the high-quality mosquito surveillance, control and supplementary services that VDCI has successfully built and operated for Adams County. We value the relationship we have built with the people of the County and again thank you for the opportunity to submit this proposal.

SECTION I. GENERAL CONSIDERATIONS

1. PROJECT DESCRIPTION

Vector Disease Control International (VDCI) will conduct a comprehensive Integrated Mosquito Management (IMM) Program for Adams County within the service area as defined below.

Vector Disease Control International will employ established IMM principles and practices to dramatically reduce the number of larval and adult mosquitoes in Adams County. These principles and practices are based on a sound Integrated Pest Management (IPM) framework. Monitoring and suppression of both larval and adult mosquitoes will be based on an environmentally focused, least-toxic approach, that utilizes a combination of cultural, biological, and chemical controls to target and reduce all mosquitoes, including potential disease-vector populations and nuisance species, and which is economically feasible, with an emphasis on minimizing chemical adulticide applications.

2. PROJECT AREA

Vector Disease Control International understands and agrees that Adams County Mosquito Control Service Area will consist of and cover only the unincorporated areas of Adams County, covering approximately 195 square miles and located generally west of Piccadilly Road though not exclusively. The size and scope may be subject to change throughout the term of the Agreement.

Section II. Integrated Mosquito Control Services Scope of Work

1. LEGAL REQUIREMENTS

VDCI will maintain current licensing and certifications to perform commercial mosquito control services in the State of Colorado.

Vector Disease Control International, LLC is currently licensed and will maintain licensing to perform commercial mosquito control services in the State of Colorado (Colorado Department of Agriculture License No. 10261). See Appendix 1 for a copy of the License and Endorsements. VDCI currently employs 15 Colorado Department of Agriculture Licensed Qualified Supervisors.

VDCI will meet all Federal, State and Local requirements for storage, transport, dispensing and disposal of all products including pesticides.

Additionally, Vector Disease Control International will:

1. Warrant that all services provided will be in a professional and businesslike manner.
2. Comply with all aspects of the United States Department of Labor and the Occupational Safety and Health Administration's regulations concerning the hazards of the chemicals utilized in performance of the specification.
3. Provide entire labor staff directly, not through subcontractors, which staff shall have appropriate pesticide training and certification.
4. Provide telephone, facsimile and e-mail communications capabilities.
5. VDCI will comply with the requirements of the Occupational Safety and Health Act (OSHA) and shall review and comply with the County's safety regulations while on any County property. Failure to comply with any applicable federal, state or local law, rule, or regulation shall give the County the right to terminate this agreement for cause.
6. COMPLIANCE WITH C.R.S. § 8-17.5-101, ET. SEQ. AS AMENDED 5/13/08: Pursuant to Colorado Revised Statute (C.R.S.), § 8-17.5-101, et. seq., as amended 5/13/08, VDCI will meet the following requirements prior to signing this Agreement (public contract for service) and for the duration thereof:
 - A. VDCI will certify participation in the E-Verify Program (the electronic employment verification program that is authorized in 8 U.S.C. § 1324a and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or its successor program) or the Department Program (the employment verification program established by the Colorado Department of Labor and Employment pursuant to C.R.S. § 8-17.5-102(5)) on the attached certification.

- B. VDCI will not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
 - C. VDCI will not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
 - D. At the time of signing this public contract for services, VDCI has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or the Department Program.
 - E. VDCI will not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this public contract for services is being performed.
 - F. If VDCI obtains actual knowledge that a subcontractor performing work under this public contract for services knowingly employs or contracts with an illegal alien, VDCI will: notify the subcontractor and the County within three days that VDCI has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the previous paragraph, the subcontractor does not stop employing or contracting with the illegal alien; except that VDCI will not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
 - G. VDCI will comply with any reasonable requests by the Department of Labor and Employment (the Department) made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
7. If VDCI violates this Section, of this Agreement, the County may terminate this Agreement for breach of contract. If the Agreement is so terminated, VDCI will be liable for actual and consequential damages to the County.
 8. Provide all employees extensive classroom and field training on issues pertaining to; Pesticide and Applicator Laws and Regulations, Pesticide Labels and Labeling, Pesticide Use, Applicator Safety, Public Safety, Environmental Protection, Integrated Pest Management, Integrated Mosquito Management, and Equipment Use and Calibration.
 9. Provide all employees training on all pertinent OSHA regulations. Employees will be instructed on required Personal Protective Equipment (PPE) for each product, its use, care, and disposal. Employees will receive instruction on what to do in case of an emergency including and not limited to; spill procedures, vehicular accidents, personal

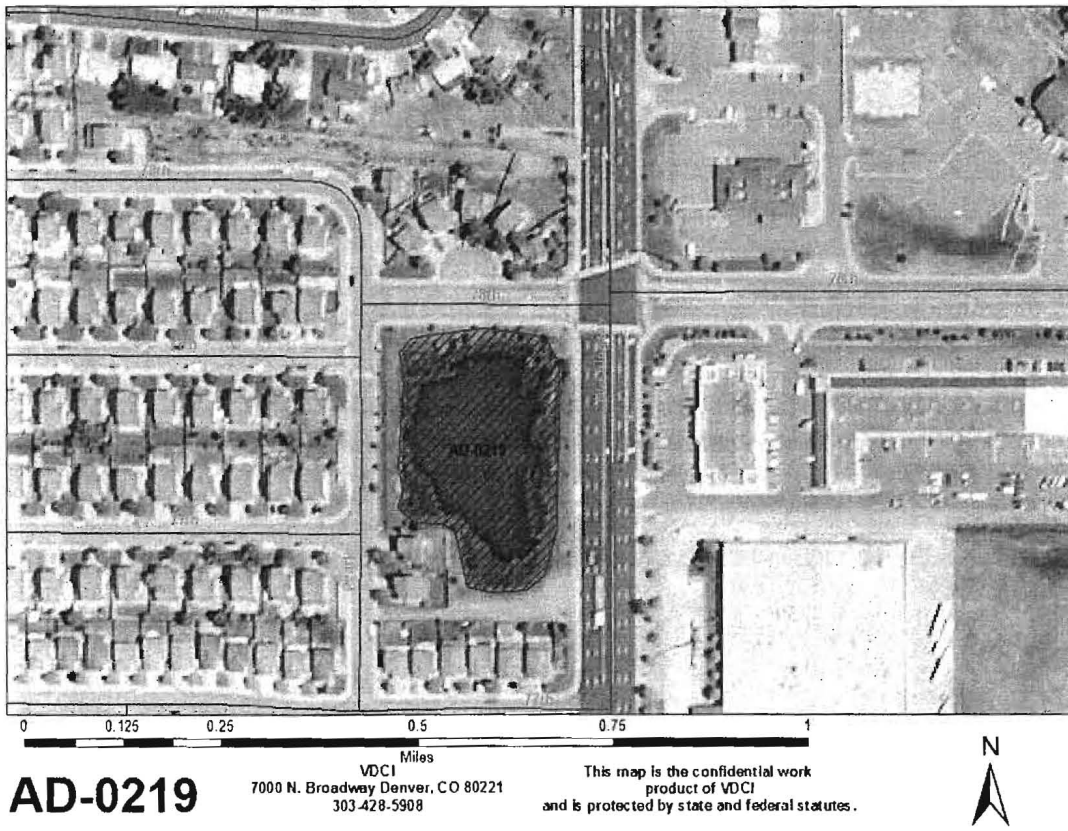
- injury, West Nile prevention, environmental protection, and public safety. This training will include spill prevention, cleanup and disposal, and chain of command notification requirements.
10. Provide employees with all required Personal Protection Equipment as required by the EPA, Colorado Department of Agriculture, and OSHA.
 11. Provide each employee VDCI company shirts so that they can be clearly identified as Mosquito Control Technicians by residents and County officials.
 12. All vehicles are owned by VDCI and commercially insured under VDCI's master commercial automotive policy. All vehicles will be clearly marked with the company's name, city, state and telephone number, per CO Dept. of Agriculture rules. No private vehicles will be used. All employees will have proper ID at all times while in the field.
 13. All company vehicles used for pesticide applications are trucks, with pesticides being stored and secured in truck bed separate of passenger compartment. This conforms to DOT and Colorado Department of Agriculture Regulations.
 14. All trucks are equipped with a correctly rated fire extinguisher, current Safety Data Sheets for all carried products, current labels for all carried products, employee first aid kit, and chemical spill/recovery kit.
 15. Use no subcontractors or independent contractors to perform normal surveillance or treatment of areas. All personnel will be legal employees of the company providing the mosquito control services. All employees will be properly trained and licensed by the CO Dept. of Agriculture and covered by General Liability Insurance Policy and Workers Compensation Insurance.
 16. Provide Labels and SDS for all products used by company upon written request.
 17. Provide General Liability/Auto/Workers Compensation insurance policy as required with a minimum comprehensive of \$1 million per occurrence general liability, claims-made policy including chemical and pollution coverage is required. Adams County is named as additionally insured.

2. SURVEY AND MAPPING SERVICES

VDCI will survey Adams County lands designated in Section I. VDCI will develop and maintain mosquito management service-related information in GIS format, and will provide GIS maps indicating mosquito-breeding sites and larval control activity to the County as requested.

VDCI has been a licensed user of ESRI ArcGIS software for over 15 years and was one of the pioneers of its use in mosquito control operations. VDCI extensively utilizes ESRI's ArcGIS geographic information system for all larval breeding site mapping, call & shutoff location, truck-ULV application routing and much, much more. In our current existing customer larval database VDCI has mapped and cataloged over 20,000 potential larval breeding sites.

VDCI will accurately map and catalog all potential larval mosquito production sites within the proposed service area. VDCI will then produce larval site inspection route books that include maps overlaid on digital aerial orthophotography for accurate detail (see example below). VDCI will maintain and update this digital data as needed and will provide copies to Adams County as requested.



3. LARVAL MOSQUITO SURVEILLANCE AND CONTROL

- I. VDCI will devote the majority of staff time to larval mosquito surveillance and control. VDCI has identified larval habitats within the Adams County Service Area that are inspected throughout the season on a biweekly, weekly or monthly basis. VDCI will perform larval mosquito control operations from May through September (as needed, dependent on environmental conditions and presence of larvae). VDCI will continue to maintain a larval site history database that includes a site catalog number, date and time of inspections, wet/dry status of site, treatment (if any), product type and amount, estimated acreage treated, larval action threshold, documentation of any adverse incidents associated with treatments (NPDES/CDPS requirement), larval instars present and number of larvae present per dip.



VDCI has continually updated our database system and associated GIS data layers with additional new-found breeding sites and changes in parcel ownership. VDCI will continue to improve the program effectiveness by surveying, mapping and methodically inspecting new sites to build a site history and identify problem areas as they are located.

- II. VDCI will utilize our advanced database to accurately maintain inspection sites, dates, treatments, methods, product amounts, products used for control, and population dynamics of the mosquito larvae collected.
- III. Using our previous years of data collecting in Adams County as a base, VDCI will continuously fine-tune our proprietary database to efficiently target larval mosquito control operational efforts. Our operations will include:
 - a. Targeted larval site inspections, as needed, at all previously identified and new found potential larval development sites. Site inspections will target larval sites based on past comprehensive site history data as recorded in our database. These data incorporate historic records of larval presence, larval densities, habitat size and type, water source, and weather data.
 - b. As sites are found that contain mosquito larvae, VDCI will first look to cultural or physical controls to reduce or eliminate standing water and larval development. Water management and source reduction including clearing clogged ditches, hand digging of channels, and working with property owners to mitigate these sites will be implemented when applicable.

- c. VDCI will then, as appropriate, treat sites where mosquito larvae are detected with a “Prescription-oriented” least-toxic, biological control appropriate to the site. Larval control products will include; Vectobac (Bti), Vectolex (Bs), Altosid (methoprene), BVA 2 (highly refined mineral oil) and other registered larval control products as needed. All applications will be within label-specified rates and recorded in our database.
- IV. VDCI will perform 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 to 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.



VDCI'S LARVAL MOSQUITO CONTROL RESOURCES

- * **Professional Staff:** VDCI will devote full-time field technicians and a Qualified Supervisor (licensed through the CO Dept. of Ag) to perform IMM-based larval mosquito control operations in Adams County. These technicians are fully trained via VDCI's classroom and field training program, and far exceed the minimum training standards set by the Colorado Department of Agriculture. Management of the program is led by Rob Kozar, a highly experienced, full-time VDCI employee and a licensed Qualified Supervisor in Public Health (110) through the CO Dept. of Agriculture. All larval mosquito control work will be done by employees of Vector Disease Control International, who will be covered by VDCI's Worker's Compensation Insurance, and will not be subcontracted out.



- * **Equipment:** Every technician will have access to a VDCI-owned fleet vehicle which is fully insured under VDCI's master commercial fleet policy and is equipped with all necessary larval surveillance equipment, larval control application equipment, and biological larvicide products.



- * **Infrastructure:** Because much of VDCI's operations are targeted toward larval mosquito control, many of our resources are used on infrastructure to facilitate these operations. VDCI's warehouses, material handling equipment, supply chain, data input, vehicle fleet, and application equipment are all designed to support our larval control operations.
- * **Technology:** VDCI's proprietary and advanced database system will be used to analyze historical breeding site data, which decreases our environmental impact by targeting site inspections and microbial larvicide control applications.

We have specifically engineered our database with proprietary algorithms and reporting capabilities to utilize historical data collected from Adams County and other communities throughout Colorado to precisely target larval mosquito control locations, reducing unnecessary treatments. Targeting our applications with our historical data allows our operations to provide the highest level of control while minimizing the quantity of larvicide being applied to the environment.

4. ADULT MOSQUITO SURVEILLANCE TRAPPING

- I. VDCI will conduct extensive adult mosquito surveillance trapping during the mosquito season (approximately the beginning of June through the end of August, weather permitting *or as requested by an authorized County Representative*) to monitor mosquito-borne disease risk and nuisance mosquito population levels. Trapping of adult mosquitoes at minimum will include:
 - a. Weekly trapping at four (4) pre-determined permanent surveillance locations within the Adams County Mosquito Control Service Area. Samples may be tested for West Nile Virus in cooperation with Adams County and the Colorado Department of Public Health and Environment.
 - b. As necessary, VDCI may provide additional trapping with “floater” traps in areas of the County that are not covered by one of the permanent trap locations. Floater traps and Landing Rate Counts may be used to determine adult mosquito populations in areas where citizen complaints regarding high numbers of mosquitoes have been received and to determine whether spraying for adult mosquito control is needed (see Adult Mosquito Control, below.)
 - c. CDC light traps, baited with dry ice (CO₂), will be used for permanent and floater surveillance trapping operations.
 - d. Identification to genus and species, and total counts of adult mosquitoes will be completed within 24 hours of delivery of the specimens to VDCI’s lab if possible. Counts using statistically valid sampling methods will be used in large trap sample sizes (over 300 mosquitoes/trap).
 - e. VDCI will maintain trap data via our proprietary database and make it available to Adams County Representatives.
 - f. All mosquito trapping activities including the submission of mosquito pool specimens will be conducted in accordance with the protocols established in the CDPHE 2018 Mosquito Surveillance Plan.



VDCI's MOSQUITO SURVEILLANCE & LABORATORY RESOURCES

* **In-House Larval and Adult Mosquito Identification** is critical to accurate surveillance and timely response to spikes in vector and nuisance mosquito populations. While VDCI technicians are trained to perform larval field ID to the genus level, larvae may be periodically brought to VDCI's labs for comprehensive identification to the species level. VDCI ensures that highly trained lab ID specialists, who have access to high quality stereo zoom microscopes and scientific keys, perform the identification of both larval and adult mosquito species.



* **Management:** All VDCI surveillance and laboratory services are managed by Dr. Michael "Doc" Weissmann. Dr. Weissmann holds a Ph.D. in Entomology from Colorado State University. Dr. Weissmann is a renowned expert in Dipteran biology and taxonomy.

* **Personnel:** VDCI has 8 full-time field surveillance and laboratory technicians trained in mosquito trap operations and taxonomic identification of larval and adult mosquitoes to species level. All adult mosquito surveillance trapping will be done in-house and will not be subcontracted. Operation of the adult mosquito surveillance trap network will be completed by trained employees of Vector Disease Control International.



* **Equipment:** The VDCI Surveillance Laboratories are fully equipped with 8 stereo zoom binocular microscopes, including one video/photographic microscope capable of projecting microscopic images onto computer screens or to projection equipment for wall sized viewing.

VDCI owns and maintains more than 100 CDC dry-ice baited Light Traps and 20 Reiter Gravid Traps and all associated equipment and hardware.

* **Infrastructure:** VDCI has over 500 sq. ft. of devoted Surveillance Laboratory facilities and an additional 100 sq. ft. of trap maintenance and dry ice storage space. In addition to the above mentioned equipment, VDCI's lab facilities include other important equipment such as a deep freezer, multiple computer workstations, mobile dry ice holding containers, and a fleet of fuel-efficient vehicles specifically designated for surveillance operations.

* **Technology:** All data generated and collected by the Surveillance and Laboratory staff is entered into VDCI's database system **within 24 hours** of processing.

5. ADULT MOSQUITO CONTROL

- I. In keeping with the framework of an IMM approach to mosquito control, VDCI will focus on minimizing the use of chemical pesticides and understands that adulticides are the last resort when dealing with the biting adult stage of the mosquito. The program offered by VDCI will implement adult mosquito control applications as a final resource option, in the interest of public health and safety, as well as environmental sensitivity. VDCI acknowledges and will execute the preference of biological controls, larvicides, over chemical controls, adulticides.

To control adult mosquitoes that exceed pre-set threshold levels or present a public health threat due to mosquito infections rates or elevated vector populations, a prescription-based adulticiding program will be used. VDCI has not, and will not, subcontract ground-based ULV adulticide applications. All vehicles and equipment used in adult mosquito control operations will be owned and insured by VDCI.

- II. The use of chemical adulticide spray applications to control adult mosquitoes will be performed according to the following guidelines:
 - a. Permethrin/PBO formulations such as AquaKontrol, Pursuit 4-4, and Aqualuer (or other products with similar/less toxicity as approved by the County), will be applied within the EPA registered application rates via Ultra Low Volume (ULV) dispersal equipment.
 - b. Truck-mounted ULV dispersal will be the primary application method (ATV or hand-held ULV equipment may be used where appropriate). All ULV equipment shall be calibrated as needed, but not less than once annually.
 - c. In-cab GPS equipment will be used to map all routes and observe shutoff requests and provide accurate record keeping. Real-time data, collected during the applications, will be used to produce detailed post-application maps depicting the vehicle's path, with areas treated and not treated clearly labeled, along with reports for all adulticide applications.
 - d. Adulticide applications may be used *only* when nuisance or vector mosquitoes cannot be controlled to satisfactory levels by any other means (e.g. water management, vegetation control, biological controls, larvicide, etc.) and when any one of the following conditions exist:
 - There is an imminent threat of mosquito-borne disease transmission as directed by Adams County in cooperation with the Colorado Department of Health and Environment, or
 - When 100 adult mosquitoes are collected from any permanent CDC mosquito trap in a given night, or
 - In other areas of the County not routinely trapped, if a "floater" trap is set and there are 100 or greater adult mosquitoes captured per trap per night.

III. VDCI will coordinate with Adams County officials to schedule and perform Barrier Backpack applications using the residual adulticide TalStar (or comparable mosquito barrier products) and/or Ground-based Truck ULV mosquito spraying in Adams County Parks for outdoor community events. Applications of mosquito adulticides and or barrier products will typically be performed on the day of, or evening prior to, any scheduled and agreed upon County events.

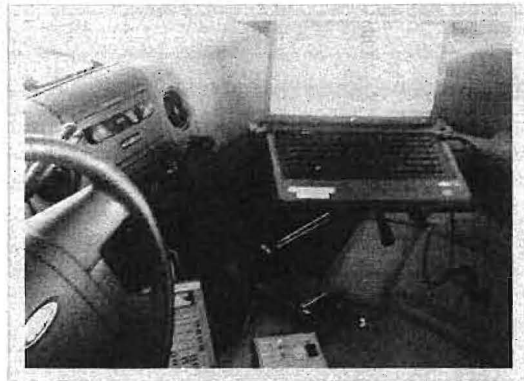
In addition, VDCI will make available to residents of Adams County private Barrier applications at an additional per service cost. The price of each application is determined by the size and complexity of the treatment area. *Payment of these private treatments is the sole responsibility of the property owner.*



VDCI's ADULT MOSQUITO CONTROL RESOURCES

Personnel: All ground-based adult mosquito control applications are performed by VDCI management staff and veteran seasonal employees with specialized training in ULV (ultra-low volume) adulticide spraying and will not be subcontracted. Currently VDCI has over 15 fully trained personnel capable of performing ground based ULV applications. This level of staffing and expertise can handle any typical weekly application needs or even any atypical public health emergency situation at a moment's notice.

Technology: VDCI will use the most advanced truck-mounted ULV application equipment available to provide great accountability in all phases of the application. Several vehicles will be equipped with GPS tracking units capable of delineating the spray routes of the vehicle. These units record at three (3) second intervals the date, time, latitude, longitude, and sprayer status (on or off). Detailed maps, graphically illustrating the application data, can be produced after each spray operation and provided to the County upon request. Our technology can also identify and mark all properties that have requested to be call notified and/or shutoff from any adulticide applications in their area.



Application Accountability: Our primary objective whenever we apply pesticides is to achieve the greatest possible level of mosquito reduction while minimizing pesticide use in as environmentally accountable manner as possible. This commitment can be evidenced by our investment in application technologies such as on-board mapping, monitoring systems, and droplet measuring equipment. Together, these instruments allow us to not only apply the proper amount of product in the proper treatment area, but they also allow us to monitor every aspect of the application event. Consequently, pesticide application is maximized in the target area and the risk to adjacent, non-target areas is greatly minimized.

VDCI utilizes a proprietary live-mapping display that provides unparalleled accuracy of ground ULV treatments. Our on-board, computer-based GPS mapping and tracking system has the ability to provide accurate ULV treatments within the designated spray blocks/areas. This technology will be used in Adams County during the 2019 – 2021 mosquito seasons.

Variable flow technology assures accurate insecticide application rates that will deliver the proper amount regardless of vehicle speed. Post treatment maps will contain the insecticide name, registration number, the total amount of product used in the

treatment, and the dates and times of the treatment along with a delineation of the movements of the vehicle within the treatment area. This allows for unparalleled accuracy and accountability.

- ✦ **Equipment and Capabilities:** With our large fleet of truck-mounted ground-based ULV adulticiding equipment, VDCI has the capacity to cover more than 1,250 linear miles of streets and roadways in ONE NIGHT. That equates to over 70 square miles or over 45,000 acres per night. In 2019, VDCI will have more than 12 spray units available on the Front Range of Colorado alone, with an additional 8 units on the western slope.
- ✦ **VDCI's History:** VDCI has extensive experience with emergency and comprehensive adult mosquito control applications. VDCI (as CMC) was the contractor hired by the Larimer and Weld City Departments of Health and Environment, as well as the Cities of Fort Collins, Loveland and Longmont during the West Nile Virus Public Health Spraying in 2007, 2012, 2013 and 2015. VDCI not only has the capacity, with respect to equipment and staffing, but possesses the expertise and experience needed when scheduling, planning, and supplying the required materials. VDCI has always been able to coordinate emergency response applications in a moment's notice. We pride ourselves on our ability to meet the needs and specifications of our municipal accounts to successfully achieve the objectives of suppressing West Nile risks, all within accordance of the guidelines set forth by the CDC and Colorado Department of Agriculture.



VDCI'S PUBLIC HEALTH EMERGENCY SURVEILLANCE & ADULTICIDE SERVICES

We have included contractual price quotes for additional vector mosquito surveillance trapping and a per mile cost for additional adulticide applications in the event of a large-scale public health emergency. At the request of the County, and in consultation with CDPHE and CDC Ft. Collins, Vector Disease Control International will provide the following Optional Public Health Emergency Services at an additional cost:

CDC Light Trap and/or Reiter Gravid Trap Surveillance

Upon request, VDCI will operate additional CDC light traps and/or Reiter gravid traps for expanded adult mosquito and disease vector mosquito surveillance within Adams County.

Identification of the trapped mosquitoes will be performed the following day after the mosquitoes are returned to the lab. The trapped mosquitoes will be counted and identified to the following species; *Culex tarsalis*, *Culex pipiens*, *Aedes/Ochlerotatus* species.

Cost per trap/night: \$100.00

Cost includes all equipment, dry ice, vehicles, labor, shipping and reporting.

Ground-based Truck ULV Adulticide Application

VDCI will undertake emergency ground-based truck ULV adulticide spraying in accordance with U.S. EPA, Colorado Dept. of Agriculture, and Colorado Dept. of Health and Environment regulations in the event of a declared public health state of emergency that exceeds the scope of the existing program. VDCI will, at the County's request, organize and coordinate all spraying operations for public health response.

Cost per linear spray route mile: \$85.00

Cost includes all equipment, vehicles, pesticide products, labor, and liability insurance.

Aerial ULV Adulticide Application via Fixed-Wing or Rotary-wing Aircraft

VDCI has extensive experience with aerial mosquito control application and would oversee and direct such applications. All aerial adulticide applications would be performed by experienced and insured aerial applicators, licensed through the Colorado Department of Agriculture. This work would be done through Vector Disease Control International's aerial division. Prices would be subject to the size of the designated spray area, application material selected, and current pricing.

6. PUBLIC OUTREACH & EDUCATION

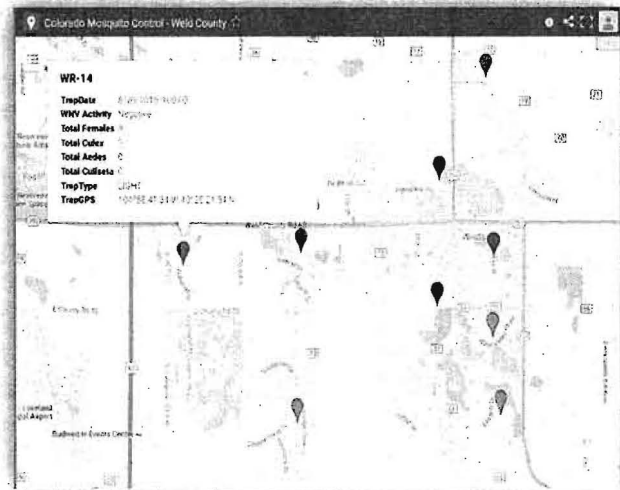
Since our inception in 1992, VDCI has believed in and demonstrated that a strong Public Outreach and Education Program is one of the keys to success in providing large-scale municipal mosquito control programs. Listening to citizen complaints and inquiries can aid in evaluating the effectiveness of a program. VDCI constantly looks for ways to better serve the communities we work with and appreciates citizen involvement in the betterment of the program. We have clearly demonstrated our commitment and belief in the strength of public outreach and education by proactively serving Adams County over the years with numerous innovative programs, activities and services as described below.

VDCI WEBSITE

Our website, www.vdci.net/colorado, is the leading website in the State of Colorado when it comes to providing up-to-date, factual, and comprehensive information on, and links to, mosquito biology and control, mosquito-borne diseases, pesticide toxicology information, and a wealth of topics relating to mosquitoes. VDCI will continue to maintain this website, including daily spray schedules of planned adulticide areas within Adams County.

Our website continues to serve as an integral part of the dissemination of operational data to citizens with little request for resources or time required by the County and its employees.

VDCI maintains and will continue to maintain website links to CDPHE (Colorado Dept. of Public Health & Environment), and NPIC (National Pesticide Information Center and CDC (US Centers for Disease Control).



MOSQUITOLINE™

VDCI will continue to maintain a toll-free telephone line at **(877) 276-4306** for customer service calls. We will accept calls from the public at any point concerning, but not limited to the following topics:

- Opting out of any adulticide spraying via a "shut-off list" which is updated annually and as new requests are received from private property owners.
- Request a telephone or email notification when adulticide spraying is planned in and around their neighborhood.
- Report mosquito annoyance areas and request floater traps at their residence.

- Report standing, stagnant water that may indicate the presence of larval sites or adult mosquito harborage.
- Request information about mosquito populations within the community.
- Request information on how to control and/or prevent mosquitoes on their property and mosquito-borne diseases such as WNV, WEE and SLE.
- Request health and safety information about mosquito control operations and pesticide products used in Adams County Mosquito Control Services Program.
- Request backyard inspections and information on inspection activity and larval production at sites of interest.

VDCI will maintain a log of calls received including date, name, address, type of call, response, resolution, and resolution date.

IMMEDIATE RESPONSE™

VDCI introduced the concept of a 24-hour response/resolution time to all mosquito annoyance complaints in 1994 with our trademarked ImmediateResponse™ System. VDCI will continue to respond accordingly to all mosquito related complaints and will refer any service related complaints to Adams County.

- VDCI will verify the validity of mosquito annoyance complaints by on-site inspection including; adult mosquito trapping via nearby pre-determined trap locations or floater traps, as needed, or landing rate counts (10 females mosquitoes per 5 minute period = annoyance level) and/or larval dip surveillance in local breeding sites.
- VDCI will resolve all complaints, *whenever possible*, within 24-hours to the satisfaction and standard of Adams County.
- VDCI will provide education, either verbally or through printed materials to the complainant in an effort to promote self-management of local mosquito problems.

CALL AND EMAIL NOTIFICATION AND SHUTOFF SYSTEM

VDCI will continue to maintain a comprehensive Call and Email Notification & Shutoff database and will notify residents on the list when conducting ULV adulticide applications near their property. All Shutoff locations are mapped in ArcGIS. Notification & Shutoff forms are available online and may be submitted via VDCI website, email or by mail. VDCI will mail

renewal request forms each season and perform all updating of resident information as it is received.

INFORMATIONAL PAMPHLETS AND PRESENTATIONS

VDCI will provide Adams County employees, Utility Workers, Senior Citizens and any other "at risk" individuals exposed to mosquito bites from outdoor work, or at higher risk for contracting mosquito-borne illness, with informative presentations or brochures about personal protection, repellents, West Nile Virus activity and ways to reduce mosquitoes by eliminating standing water.

Additionally, these educational fliers and pamphlets are always available to the public and may be distributed at numerous public events each summer.

DAILY POSTING OF ULV SPRAY ZONES

Areas scheduled for ULV truck spraying will be posted by 3pm daily on VDCI's website: www.vdci.net/colorado

WELD COUNTY

Town of Johnstown · Thompson River Ranch · Jt Central · Rolling Hills Ranch

Tuesday, August 29

Dacono · Sharpe Farms · Sweetgrass · Eagle Meadow

Garden City · Town Limits

Gilcrest · Town Limits

Greeley North Public Works area · Island Grove Park · Coyote Run area · Epple Park/Pheasant Run · County

 Google Calendar

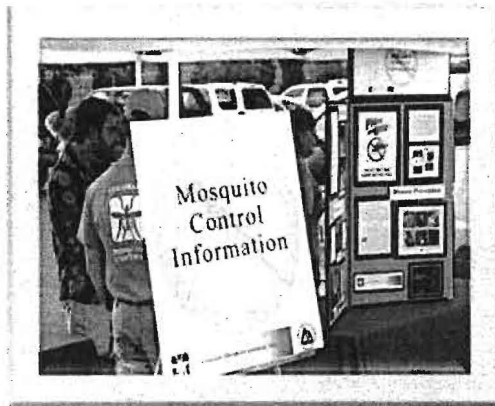


VDCI is a company built on the foundations of public health, ethics, professionalism, and technical expertise. We establish vector management programs that are based on an understanding of the underlying vector's ecology and rooted in the current science of environmentally sound control measures. To learn more about VDCI services, gain greater insight on the various mosquito species as well as the potential diseases they vector, please subscribe to our blog.

We are committed to protecting public health through excellence in vector management and we are proud to serve your community!

VDCI's PUBLIC OUTREACH PROGRAM & EDUCATION RESOURCES

- † **Innovative Programs:** VDCI has worked with dozens of municipalities on numerous public events across the state since our inception to supply information and provide personalized educational programs about mosquitoes, mosquito-borne illness, and public health. We have also provided personnel, larval and adult mosquito specimens, equipment such as light traps and microscopes, signs, etc. to various groups in need of such educational items. We have set-up booths at Fairs, Farmers' Markets and during West Nile Virus education outreach events in past years and will continue to do so for our customers.
- † **Technology:** VDCI was one of the first mosquito control organizations in the United States to publish adult mosquito control spray schedules on the web. Additionally, our website www.vdci.net/colorado has been a leading source for up-to-date, factual and comprehensive information on, and links to, mosquito biology and control, mosquito-borne disease, pesticides, and many other issues relating to mosquitoes in the State of Colorado (and the US) for several years.



7. REPORTING

- I. VDCI will provide all maps, records, logs, complaints, correspondence, and reports to Adams County, where applicable and as requested by the County, in a common, easy to use, electronic/digital format or hard copy. All data listed above will be provided within 2 weeks of request, if not sooner.
- II. VDCI will provide Adams County Representatives with weekly trap counts, prior to close of business on Friday of each week (barring extenuating circumstances).
- III. VDCI will submit monthly reports of operational efforts during the months of May-September by the 15th of the following month. Monthly reports will include, at a minimum:
 - Updates on disease vector mosquitoes: local, state and national
 - Overall mosquito surveillance operations and breeding site activity
 - Larval control operations
 - Adult control operations
 - Chart all activity:
 1. Larval inspection and control data
 2. Adult surveillance data
 3. Adulticide data
- IV. VDCI will submit an annual report by November 30th of the current contract year. At minimum, the annual report will include:
 - Mosquito Control Objectives
 - Detailed overview of the previous season
 - WNV, Western Equine Encephalitis and St. Louis Encephalitis overview
 - Larval mosquito surveillance and control
 - Adult surveillance & laboratory results
 - Adult mosquito control data
 - Public relations and education activities
 - Summaries
 - Graphs, charts and data summaries
 - Any other pertinent information

VDCI's REPORTS AND RECORD KEEPING RESOURCES

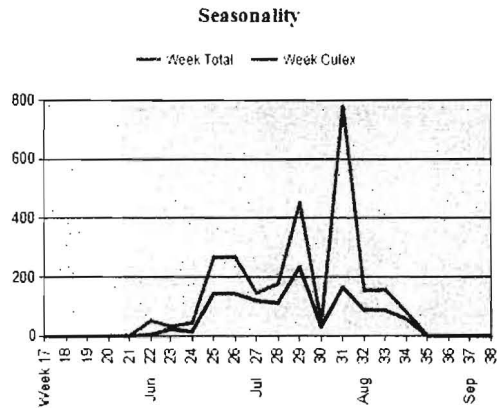
- ✦ **Personnel:** VDCI has dedicated office staff to handle all incoming telephone communications, computer data entry, website and notification updates, and report generation.
- ✦ **Equipment and Technology:** VDCI possesses a state-of-the-art server supported computer network with T-1 high-speed internet access, numerous computer workstations, printers, faxes, and scanners, all designed to support our proprietary database and ArcGIS software systems. At VDCI, we view technology as the key to continued effective, efficient, cost-beneficial and environmentally sound mosquito control for today and well into the future.

2018 Adams County CDC Trap Composite Data

Total number of trap/nights set:	43
Total number of mosquitoes collected:	9,416
Average mosquitoes per trap/night:	219
Average Culex per trap/night:	98

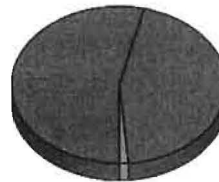
Species collected and abundance:

<i>Aedes (Oc.) dorsalis</i>	283	3.0%
<i>Aedes (Oc.) triseriatus</i>	3	0.0%
<i>Aedes (Oc.) melanimon</i>	42	0.4%
<i>Aedes (Oc.) nigromaculis</i>	2	0.0%
<i>Aedes (Oc.) trivittatus</i>	142	1.5%
<i>Aedes vexans</i>	4572	48.6%
<i>Aedes Ochlerotatus ssp</i>	15	0.2%
<i>Anopheles hamisi</i>	2	0.0%
<i>Culex erythrothorax</i>	21	0.2%
<i>Culex pipiens</i>	987	10.5%
<i>Culex saltanarius</i>	761	8.1%
<i>Culex tarsalis</i>	2466	26.2%
<i>Culiseta inornata</i>	120	1.3%



Genus proportions:

Genus	Number	Percent of Total
<i>Aedes Ochlerotatus</i>	5,059	53.7%
<i>Anopheles</i>	2	0.0%
<i>Culex</i>	4,235	45.0%
<i>Culiseta</i>	120	1.3%
Other	0	0.0%



■ Count AEOC
 ■ Count AN
 ■ Count CX
 ■ Count CU
 ■ Count OTHER

©2017 Vector Disease Control International

SECTION III. VDCI KEY MANAGEMENT AND PERSONNEL

Vector Disease Control International is a professional organization dedicated to providing comprehensive state-of-the-science large-scale mosquito control contracted services to municipalities and other organizations. VDCI's mosquito management programs are designed, implemented, and supervised by experienced, trained, and licensed personnel with over 80 years of combined field mosquito control experience, including Board Certified Entomologists.

Robert Kozar

Operations Manager and Front Range Regional Director

Over 14 years experience in municipal mosquito control operations and management.

Education:

B.A. in History (1990), University of Illinois at Chicago.

Memberships:

American Mosquito Control Association

West Central Mosquito & Vector Control Association

Licensed:

Qualified Supervisor - Colorado Department of Agriculture: Public Health 110

Michael J. "Doc" Weissmann, Ph.D.

Chief Entomologist/Surveillance Manager

30 years experience with insect identification, behavior, and public education. Faculty Affiliate in the Department of Bioagricultural Sciences and Pest Management at Colorado State University, Ft. Collins, Colorado.

Education:

B.A. in Environmental, Population, and Organismic Biology (1982 Graduated with Distinction and elected to Phi Beta Kappa), University of Colorado at Boulder.

M.A. in Environmental, Population, and Organismic Biology (1986), University of Colorado at Boulder. M.A. thesis research focused on the biology of the water-stick insect, *Ranatra fusca*, in Colorado and their potential as a biological control agent against mosquitoes.

Ph.D. in Entomology (1995), Colorado State University at Ft. Collins. Dissertation research focused on the biology of the giant sand treater camel cricket, *Daihinibaenetes giganteus*, at Great Sand Dunes National Monument, Colorado.

Memberships:

American Mosquito Control Association

West Central Mosquito and Vector Control Association

Licensed:

Qualified Supervisor – CO Dept of Agriculture: Public Health 110 & Aquatics 108

Daniel Markowski, Ph.D.

Entomologist/National Operations Director

Dr. Markowski has been involved in pest control practices for over 25 years, highlighted by his involvement in several mosquito-borne disease outbreaks throughout the nation.

Education:

B.S. in Biology (1991), Memphis State University. Emphasis in Entomology, focusing on the management of pest species.

M.S. in Zoology (1993), University of Rhode Island. Thesis research concentrated on the bionomics of deer ticks, *Ixodes scapularis*, and their role in Lyme disease transmission.

Ph.D. in Biology (1998), University of Rhode Island. Dissertation research focused on the genetic analysis of northeastern populations of *Ixodes scapularis* using molecular analysis tools.

Seasonal Staff:

All VDCI seasonal employees are fully trained per Colorado Department of Agriculture regulations in all aspects of modern mosquito control operations, including; mosquito biology, field inspection and surveillance techniques, safe handling and application of pesticides and public relations. VDCI will hire and train additional employees as required to fulfill our contractual obligations.

SECTION IV. REFERENCES

City of Fort Collins

Mr. Matt Parker
1745 Hoffman Mill Road
Fort Collins CO, 80524
(970) 416-2815
MParker@fcgov.com

City of Longmont

Mr. Dan Wolford, Dir. Of Open Space
350 Kimbark St.
Longmont, CO 80501
(303) 774-4691
dan.wolford@ci.longmont.co.us

Town of Parker

Mr. Tom Williams
Director of Public Works and Engineering
2012 East Mainstreet
Parker, CO 80138
(303) 840-9546
twilliams@ci.parker.co.us

Additional references will be provided upon request.

SECTION V. PROGRAM COST

At VDCI, we fully understand our customers' need for a professional, reliable and environmentally responsible mosquito control contractor. Hence, we are offering a level service above and beyond the specifications normally required of a mosquito control services provider, such as state-of-the-art technology and GIS mapping, unlimited ground larvicide applications, extensive larval and adult mosquito surveillance, prescription-based adult mosquito control spraying, assistance with public outreach, and full reporting of all applications and quality control measures, for a single yearly cost to the County.

The amount listed is all-inclusive with no additional charges or costs. VDCI continues to experience significant annual increases in our costs for office leases, liability insurance, pesticide, equipment, and labor. Despite these increases however VDCI proposes that we keep our 2019 price *the same* as requested in our original 2019 Renewal Letter - \$225,832.00. Subsequent annual price increases will be at a fixed 2.0% rate (which is below the current Denver-Boulder-Greeley CPI rate as of this writing) for the remainder of the contract term (2020, 2021). Please keep in mind that the services offered and the prices quoted here can be discussed so that a program and price tailored to the specific needs of the County can be developed.

The schedule of total annual cost to Adams County for mosquito control services, to include labor, materials, vehicles, equipment, liability/auto/workers compensation insurance coverage, administrative support, and overhead expenses, as detailed in this proposal and subject to subsequent annual renewal is:

2019: \$225,832.00

2020: \$230,349.00

2021: \$234,956.00



COLORADO

Department of Agriculture

Division of Plant Industry

305 Interlocken Parkway, Broomfield, CO 80021

Tel: (303) 869-9066 Fax: (303) 466-2860

**COMMERCIAL APPLICATOR
CERTIFICATE OF LICENSE**

License Number: 10261

Effective Date: 01/11/2019

Date Issued: 01/16/2019

Good Through: 12/31/2019

ADVANCED PEST MANAGEMENT OF COLORADO, LLC

7000 N. BROADWAY SUITE 108

DENVER, CO 80221

DBA: COLORADO MOSQUITO CONTROL, LLC

VECTOR DISEASE CONTROL INTERNATIONAL LLC

This certificate is evidence that a license has been issued to the person(s) listed above to do business in the name(s) listed above under the provisions of the Pesticide Applicators' Act and may be revoked, suspended, or have other lawful discipline imposed for cause.

COMMISSIONER OF AGRICULTURE

Kate Greenburg



COLORADO

Department of Agriculture

Division of Plant Industry

305 Interlocken Parkway, Broomfield, CO 80021

Tel: (303) 869-9066 Fax: (303) 466-2860

COMMERCIAL APPLICATOR ENDORSEMENT

License Number: 10261

Date Issued: 01/16/2019

Effective Date: 01/11/2019

Good Through: 12/31/2019

Mailing Address:

ADVANCED PEST MANAGEMENT OF COLORADO, LLC
7000 N. BROADWAY SUITE 108
DENVER, CO 80221

Home/Records Address:

7000 N. BROADWAY SUITE 108
DENVER, CO 80221

Doing-Business-As Name(s) (DBA)

COLORADO MOSQUITO CONTROL, LLC
VECTOR DISEASE CONTROL INTERNATIONAL LLC

Contact: TIM BENNETT

Insurance Expires: 10/01/2019

Phone: (303) 428-5908

Aerial: N

This endorsement is valid for the following categories ONLY:

Agricultural: 108, 110

Ornamental:

Structural:

Qualified Supervisors

<u>Lic. #</u>	<u>Last Name</u>	<u>First Name</u>	<u>MI</u>	<u>Lic. Expires</u>
03047	KRUTHAAPT	CHRISTOPHER	G	12/09/2020
License Categories: 110				
20513	KOZAR	ROBERT	L	03/21/2020
License Categories: 110				
28021	WILLIAMS	MALCOM	G	11/20/2021
License Categories: 110				
28843	SHEAFFER	STEPHEN	J	08/24/2019
License Categories: 110				
30053	LAUTZENHEISER	ERIC		02/19/2021
License Categories: 110				
30352	BATES	NICHOLAS		03/05/2021
License Categories: 110				
30424	BENNETT	TIMOTHY		02/04/2021
License Categories: 110				
30814	BOZE	BROOX		03/18/2021
License Categories: 110				
31932	WEISSMANN	MICHAEL		02/24/2022
License Categories: 108 110				
32133	RODOSEVICH	NETTO		01/07/2022
License Categories: 108 110				
32889	KYER	MELISSA		05/28/2020
License Categories: 110				
33220	SCHLATMANN	WILLIAM		03/25/2020
License Categories: 110				
33267	RENFRO	KELSEY		11/26/2019
License Categories: 110				
34250	HYMES	STEPHEN	L	06/01/2020
License Categories: 110				
34544	LAMIELL	BENJAMIN	P	01/14/2021
License Categories: 110				
36368	ARMSTRONG	JOHN		08/04/2021
License Categories: 110				

Certified Operators

<u>Lic. #</u>	<u>Last Name</u>	<u>First Name</u>	<u>MI</u>	<u>Lic. Expires</u>
35005	BRAILSOFORD	DAVID	B	12/31/2019
License Categories: 110				

APPENDIX 2. CERTIFICATE OF COMPLIANCE

CONTRACTOR'S CERTIFICATION OF COMPLIANCE

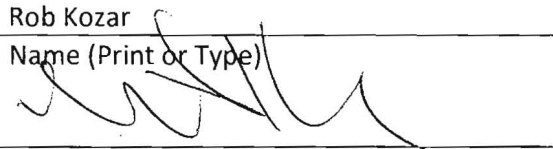
Pursuant to Colorado Revised Statute, § 8-17.5-101, *et.seq.*, as amended 5/13/08, as a prerequisite to entering into a contract for services with Adams County, Colorado, the undersigned Contractor hereby certifies that at the time of this certification, Contractor does not knowingly employ or contract with an illegal alien who will perform work under the attached contract for services and that the Contractor will participate in the E-Verify Program or Department program, as those terms are defined in C.R.S. § 8-17.5-101, *et. seq.* in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the attached contract for services.

CONTRACTOR:

Vector Disease Control International, LLC
Company Name

April 3, 2019
Date

Rob Kozar
Name (Print or Type)


Signature

Front Range Director
Title

VECTOR DISEASE CONTROL INTERNATIONAL, LLC.
ATTACHMENT "A"
Hold Harmless, Warranty, Disclaimer for Adams County
April 3, 2019

1. Hold Harmless Indemnity Clause:

Vector Disease Control International, LLC. ("VDCI") shall indemnify and hold harmless Adams County and its agents and employees from and against all claims damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the services, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of VDCI, any sub-contractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this paragraph.

Responsibility: liability. VDCI warrants that it will exercise in its performance of these services the standard of care normally exercised by nationally recognized organizations engaged in performing comparable services. VDCI shall be liable to Adams County for any loss, damages or costs incurred by Adams County because of VDCI's duties under this warranty.

2. Warranty & Disclaimer

Vector Disease Control International, LLC. ("VDCI") is engaged in the business of mosquito control and abatement, and has not been retained to eradicate the mosquito population in any particular area. There are severe, and sometimes fatal, consequences of some mosquito bites which may include transmission of certain serious diseases such as malaria, dengue fever, West Nile virus and several other forms of encephalitis. Not only can mosquitoes carry diseases which afflict humans, but they also can transmit several diseases and parasites that birds, dogs and horses and other animals are very susceptible to. These include dog heart worms, Western Equine Encephalitis and West Nile Virus. Because VDCI has not been retained to eradicate the mosquito population, VDCI can make no warranty, representation or guarantee, of any type, about the existence of mosquito borne diseases in the geographic area of the proposed area of contracting, or the potential for human or animal infection before, during or after the completion of the VDCI mosquito control services.

VDCI warrants that the services described in this proposal will be provided in a professional and business-like manner. Other than this warranty, VDCI makes no express or implied warranties, including without limitation, any express or implied warranties of merchantability or fitness for a particular purpose. Client understands and agrees that any liability of VDCI regarding the Project shall be limited to negligence of VDCI in the carrying out of its professional services under the

contract, and shall not include any special, incidental, consequential or punitive damages, or any damages based on any lost sales or profits.

VDCI will not be liable for any general, special, incidental or consequential damages for loss, damage or expense including but not limited to sickness, injury or death, loss of livestock or animals, or lost profits from any farm or ranching operations of any type from the mosquito control services provided by Vector Disease Control International, LLC.

3. No private vehicles will be operated in Adams County in connection with the Mosquito Control Program.

4. Workman's Compensation, Automotive and General Liability Insurance are in place.
(Certificates available upon request)

5. Ownership of Work Product

The parties recognize and agree that Vector Disease Control International, LLC. (VDCI) in the course of mosquito control program design, development and implementation prepares and utilizes many documents, maps, data sets and files including GIS (geographic Information system) data and files. Such information is proprietary, a trade secret and the confidential work product of Vector Disease Control International, LLC. VDCI retains all, rights, copyrights and ownership to all work prepared, developed or created pursuant to this contract. Adams County may, with written permission, utilize the data and documents internally, but will not distribute or display to the public copies of such data, files, and documents or prepare derivative work or products.

6. Independent Contractor.

The parties recognize and agree that the Contractor is an independent contractor for all purposes, both legal and practical, in performing services under this Agreement, and that the Contractor and its agent and employees are not agents or employees of Adams County for any purpose. As an independent contractor, the Contractor shall be responsible for employing and directing such personnel and agents as it requires to perform the services purchased hereunder, shall exercise complete authority over its personnel and agents, and shall be fully responsible for their actions.

Contractor acknowledges that it is not entitled to unemployment insurance benefits nor worker's compensation benefits from Adams County, its elected officials, agents, or any program administered or funded by Adams County. Contractor shall be entitled to unemployment insurance or worker's compensations insurance only if unemployment compensation coverage or worker's compensation coverage is provided by the Contractor, or some other entity that is not a party to this contract. Contractor is obligated to pay Federal and State income tax on any monies earned pursuant to the contract relationship.

VECTOR DISEASE CONTROL INTERNATIONAL, LLC.

ATTACHMENT "B"

2019-2021 CONTRACTUAL SERVICE COST AGREEMENT

April 3, 2019

For Adams County for the 2019-2021 seasons only;

Service costs include all labor, insecticides, vehicles and equipment, administrative support and overhead expenses. **Service Cost for 2019: \$225,832.00**

THREE YEAR CONTRACT: This Integrated Mosquito Management Services Proposal is offered for a three year period, 2019-2021 with a 2% annual price increase. *The yearly continuation of this project is subject to the appropriation of funds by Adams County on an annual basis for this purpose.* Signing and returning the attached copy of the contractual agreement will authorize VECTOR DISEASE CONTROL INTERNATIONAL, LLC. to perform the service items contained in the Proposal, within the stipulated limits, for a period of three years, 2019 through 2021 seasons. Adams County also agrees to the terms set forth in Attachment "A". These prices are complete and fully earned. Billing will be in 6 equal monthly installments (April - September). If new areas are to be covered they will be added at the current unit rate.

For acceptance of this Integrated Mosquito Management Services Proposal for a period of THREE YEARS (2019-2021), Sign Here:

Name (X) _____ Title _____ Date _____.

For Vector Disease Control International, LLC.

Name Rob Kozar Title Front Range Director Date April 3, 2019

Invoices should be sent to:

Name _____ Title _____
Address _____ Phone _____
City, State, Zip _____ Email _____

Please Keep This Copy for Your Records

VECTOR DISEASE CONTROL INTERNATIONAL, LLC.

ATTACHMENT "B"

2019-2021 CONTRACTUAL SERVICE COST AGREEMENT

April 3, 2019

For Adams County for the 2019-2021 seasons only;

Service costs include all labor, insecticides, vehicles and equipment, administrative support and overhead expenses. **Service Cost for 2018: \$225,832.00**

THREE YEAR CONTRACT: This Integrated Mosquito Management Services Proposal is offered for a three year period, 2019-2021 with a 2% annual price increase. *The yearly continuation of this project is subject to the appropriation of funds by Adams County on an annual basis for this purpose.* Signing and returning the attached copy of the contractual agreement will authorize VECTOR DISEASE CONTROL INTERNATIONAL, LLC. to perform the service items contained in the Proposal, within the stipulated limits, for a period of three years, 2019 through 2021 seasons. Adams County also agrees to the terms set forth in Attachment "A". These prices are complete and fully earned. Billing will be in 6 equal monthly installments (April - September). If new areas are to be covered they will be added at the current unit rate.

For acceptance of this Integrated Mosquito Management Services Proposal for a period of THREE YEARS (2019-2021), Sign Here:

Name (X) _____ Title _____ Date _____

For Vector Disease Control International, LLC.

Name  Title Front Range Director Date April 3, 2019
Rob Kozar

Invoices should be sent to:

Name _____ Title _____
Address _____ Phone _____
City, State, Zip _____ Email _____

Please Return This Copy to Vector Disease Control International

**A MOSQUITO MANAGEMENT SERVICES
RENEWAL PROPOSAL FOR:**

ADAMS COUNTY
April 3, 2019



VECTOR DISEASE CONTROL INTERNATIONAL, LLC

7000 Broadway, Suite 108, Denver, Colorado 80221

Phone: (303) 428-5908

Fax: (866) 839-8595

Operations Manager: Robert Kozar

E-Mail: rkozar@vdcil.net



**ADAMS COUNTY
2019-2021 INTEGRATED MOSQUITO MANAGEMENT
SERVICES PROPOSAL**

VECTOR DISEASE CONTROL INTERNATIONAL, LLC

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EXECUTIVE SUMMARY

Vector Disease Control International (VDCI) is pleased to offer a proposal for Adams County's Integrated Mosquito Management (IMM) Program. We understand that the County seeks to provide the highest quality public services to its citizens. We believe that VDCI has clearly proven our ability to provide exemplary quality, cost-effective services and strong working relationships with the citizens and employees of Adams County. VDCI hopes to once again serve Adams County for the 2019 through 2021 mosquito seasons.

VDCI is a company built on the foundations of public health, ethics, professionalism, and technical expertise with the goal of creating true partnerships with local municipalities, districts and residents. We strive to improve the quality of human life in communities through education, surveillance and the control of mosquitoes and other disease vectors. VDCI successfully achieves your goals by devising Integrated Mosquito Management programs that are innovative, environmentally sound, and cost effective. At all times, we will conduct business through open communication and partnerships with our customers in a manner that meets their objectives and protects both the environment and the welfare of local residents.

Founded in 1992 with the idea of providing municipalities with the products and services needed to run effective mosquito control programs, VDCI now has 25 years experience in the field of public health and manages Integrated Mosquito Management programs for cities and counties across the country. In January of 2014, VDCI acquired Colorado Mosquito Control, Inc. (CMC) and has been conducting business as Colorado Mosquito Control for legacy CMC customers, since that time. In addition, in June of 2016, VDCI acquired the mosquito control assets of OtterTail Environmental, Inc. (OTE) and currently manages these programs, including Adams County, as VDCI. These acquisitions have allowed VDCI to grow not only in size, but also in experience and performance through the integration of the best aspects of each individual entity. In order to best define who we are and present our company consistently in all geographies, VDCI is phasing out the CMC name, so all contracts will be bid and operated as Vector Disease Control International, LLC.

Vector Disease Control International has designed, implemented, refined and pushed to new technological levels, comprehensive mosquito control and disease surveillance programs based on the sound scientific principles of IPM and the environmental goals of our contracted municipalities. Other important support services offered by VDCI include a diverse informational website, a spray Notification and Shutoff program for citizens, implementation of VDCI's proprietary database, and Geographic Information System software used in daily larval and adult mosquito control operations. These collective services have expanded the scope and depth of the program we offer and have dramatically improved the operations of Adams County's Mosquito Control Program.

The following proposal will expand on the high-quality mosquito surveillance, control and supplementary services that VDCI has successfully built and operated for Adams County. We value the relationship we have built with the people of the County and again thank you for the opportunity to submit this proposal.

SECTION I. GENERAL CONSIDERATIONS

1. PROJECT DESCRIPTION

Vector Disease Control International (VDCI) will conduct a comprehensive Integrated Mosquito Management (IMM) Program for Adams County within the service area as defined below.

Vector Disease Control International will employ established IMM principles and practices to dramatically reduce the number of larval and adult mosquitoes in Adams County. These principles and practices are based on a sound Integrated Pest Management (IPM) framework. Monitoring and suppression of both larval and adult mosquitoes will be based on an environmentally focused, least-toxic approach, that utilizes a combination of cultural, biological, and chemical controls to target and reduce all mosquitoes, including potential disease-vector populations and nuisance species, and which is economically feasible, with an emphasis on minimizing chemical adulticide applications.

2. PROJECT AREA

Vector Disease Control International understands and agrees that Adams County Mosquito Control Service Area will consist of and cover only the unincorporated areas of Adams County, covering approximately 195 square miles and located generally west of Piccadilly Road though not exclusively. The size and scope may be subject to change throughout the term of the Agreement.

Section II. Integrated Mosquito Control Services Scope of Work

1. LEGAL REQUIREMENTS

VDCI will maintain current licensing and certifications to perform commercial mosquito control services in the State of Colorado.

Vector Disease Control International, LLC is currently licensed and will maintain licensing to perform commercial mosquito control services in the State of Colorado (Colorado Department of Agriculture License No. 10261). See Appendix 1 for a copy of the License and Endorsements. VDCI currently employs 15 Colorado Department of Agriculture Licensed Qualified Supervisors.

VDCI will meet all Federal, State and Local requirements for storage, transport, dispensing and disposal of all products including pesticides.

Additionally, Vector Disease Control International will:

1. Warrant that all services provided will be in a professional and businesslike manner.
2. Comply with all aspects of the United States Department of Labor and the Occupational Safety and Health Administration's regulations concerning the hazards of the chemicals utilized in performance of the specification.
3. Provide entire labor staff directly, not through subcontractors, which staff shall have appropriate pesticide training and certification.
4. Provide telephone, facsimile and e-mail communications capabilities.
5. VDCI will comply with the requirements of the Occupational Safety and Health Act (OSHA) and shall review and comply with the County's safety regulations while on any County property. Failure to comply with any applicable federal, state or local law, rule, or regulation shall give the County the right to terminate this agreement for cause.
6. COMPLIANCE WITH C.R.S. § 8-17.5-101, ET. SEQ. AS AMENDED 5/13/08: Pursuant to Colorado Revised Statute (C.R.S.), § 8-17.5-101, et. seq., as amended 5/13/08, VDCI will meet the following requirements prior to signing this Agreement (public contract for service) and for the duration thereof:
 - A. VDCI will certify participation in the E-Verify Program (the electronic employment verification program that is authorized in 8 U.S.C. § 1324a and jointly administered by the United States Department of Homeland Security and the Social Security Administration, or its successor program) or the Department Program (the employment verification program established by the Colorado Department of Labor and Employment pursuant to C.R.S. § 8-17.5-102(5)) on the attached certification.

- B. VDCI will not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
 - C. VDCI will not enter into a contract with a subcontractor that fails to certify to the Contractor that the subcontractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract for services.
 - D. At the time of signing this public contract for services, VDCI has confirmed the employment eligibility of all employees who are newly hired for employment to perform work under this public contract for services through participation in either the E-Verify Program or the Department Program.
 - E. VDCI will not use either the E-Verify Program or the Department Program procedures to undertake pre-employment screening of job applicants while this public contract for services is being performed.
 - F. If VDCI obtains actual knowledge that a subcontractor performing work under this public contract for services knowingly employs or contracts with an illegal alien, VDCI will: notify the subcontractor and the County within three days that VDCI has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to the previous paragraph, the subcontractor does not stop employing or contracting with the illegal alien; except that VDCI will not terminate the contract with the subcontractor if during such three days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.
 - G. VDCI will comply with any reasonable requests by the Department of Labor and Employment (the Department) made in the course of an investigation that the Department is undertaking pursuant to the authority established in C.R.S. § 8-17.5-102(5).
7. If VDCI violates this Section, of this Agreement, the County may terminate this Agreement for breach of contract. If the Agreement is so terminated, VDCI will be liable for actual and consequential damages to the County.
 8. Provide all employees extensive classroom and field training on issues pertaining to; Pesticide and Applicator Laws and Regulations, Pesticide Labels and Labeling, Pesticide Use, Applicator Safety, Public Safety, Environmental Protection, Integrated Pest Management, Integrated Mosquito Management, and Equipment Use and Calibration.
 9. Provide all employees training on all pertinent OSHA regulations. Employees will be instructed on required Personal Protective Equipment (PPE) for each product, its use, care, and disposal. Employees will receive instruction on what to do in case of an emergency including and not limited to; spill procedures, vehicular accidents, personal

injury, West Nile prevention, environmental protection, and public safety. This training will include spill prevention, cleanup and disposal, and chain of command notification requirements.

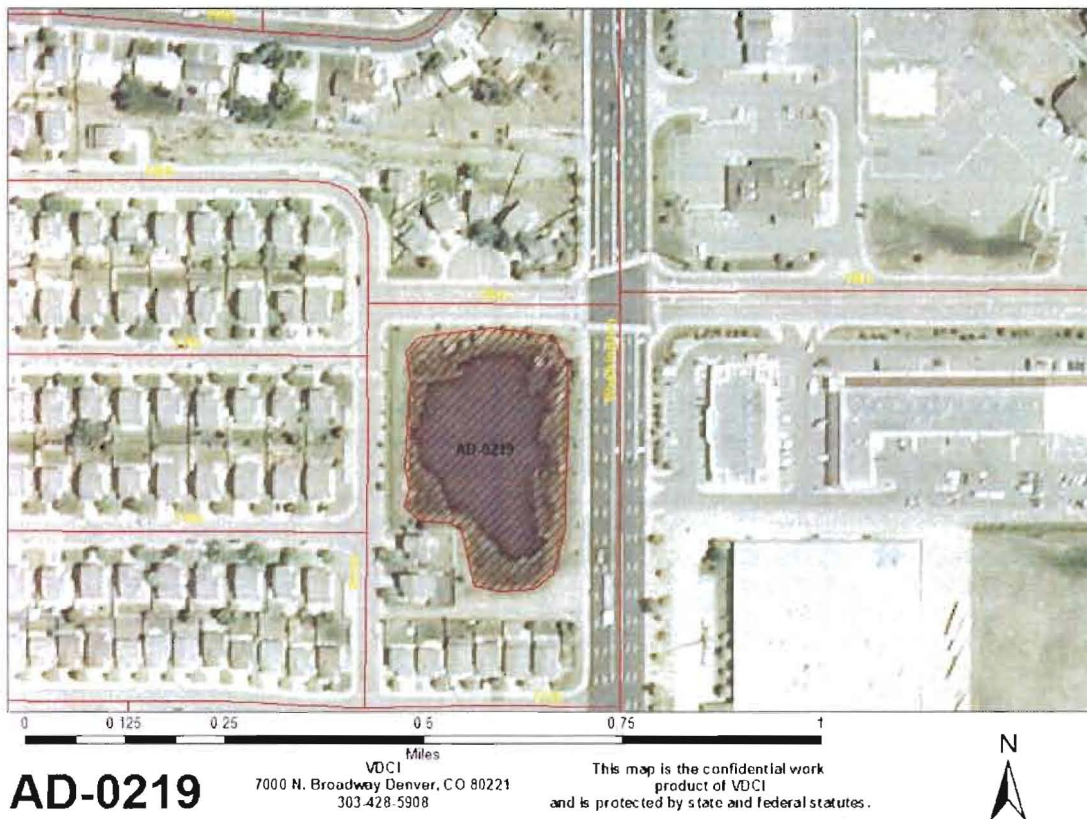
10. Provide employees with all required Personal Protection Equipment as required by the EPA, Colorado Department of Agriculture, and OSHA.
11. Provide each employee VDCI company shirts so that they can be clearly identified as Mosquito Control Technicians by residents and County officials.
12. All vehicles are owned by VDCI and commercially insured under VDCI's master commercial automotive policy. All vehicles will be clearly marked with the company's name, city, state and telephone number, per CO Dept. of Agriculture rules. No private vehicles will be used. All employees will have proper ID at all times while in the field.
13. All company vehicles used for pesticide applications are trucks, with pesticides being stored and secured in truck bed separate of passenger compartment. This conforms to DOT and Colorado Department of Agriculture Regulations.
14. All trucks are equipped with a correctly rated fire extinguisher, current Safety Data Sheets for all carried products, current labels for all carried products, employee first aid kit, and chemical spill/recovery kit.
15. Use no subcontractors or independent contractors to perform normal surveillance or treatment of areas. All personnel will be legal employees of the company providing the mosquito control services. All employees will be properly trained and licensed by the CO Dept. of Agriculture and covered by General Liability Insurance Policy and Workers Compensation Insurance.
16. Provide Labels and SDS for all products used by company upon written request.
17. Provide General Liability/Auto/Workers Compensation insurance policy as required with a minimum comprehensive of \$1 million per occurrence general liability, claims-made policy including chemical and pollution coverage is required. Adams County is named as additionally insured.

2. SURVEY AND MAPPING SERVICES

VDCI will survey Adams County lands designated in Section I. VDCI will develop and maintain mosquito management service-related information in GIS format, and will provide GIS maps indicating mosquito-breeding sites and larval control activity to the County as requested.

VDCI has been a licensed user of ESRI ArcGIS software for over 15 years and was one of the pioneers of its use in mosquito control operations. VDCI extensively utilizes ESRI's ArcGIS geographic information system for all larval breeding site mapping, call & shutoff location, truck-ULV application routing and much, much more. In our current existing customer larval database VDCI has mapped and cataloged over 20,000 potential larval breeding sites.

VDCI will accurately map and catalog all potential larval mosquito production sites within the proposed service area. VDCI will then produce larval site inspection route books that include maps overlaid on digital aerial orthophotography for accurate detail (see example below). VDCI will maintain and update this digital data as needed and will provide copies to Adams County as requested.



3. LARVAL MOSQUITO SURVEILLANCE AND CONTROL

- I. VDCI will devote the majority of staff time to larval mosquito surveillance and control. VDCI has identified larval habitats within the Adams County Service Area that are inspected throughout the season on a biweekly, weekly or monthly basis. VDCI will perform larval mosquito control operations from May through September (as needed, dependent on environmental conditions and presence of larvae). VDCI will continue to maintain a larval site history database that includes a site catalog number, date and time of inspections, wet/dry status of site, treatment (if any), product type and amount, estimated acreage treated, larval action threshold, documentation of any adverse incidents associated with treatments (NPDES/CDPS requirement), larval instars present and number of larvae present per dip.



VDCI has continually updated our database system and associated GIS data layers with additional new-found breeding sites and changes in parcel ownership. VDCI will continue to improve the program effectiveness by surveying, mapping and methodically inspecting new sites to build a site history and identify problem areas as they are located.

- II. VDCI will utilize our advanced database to accurately maintain inspection sites, dates, treatments, methods, product amounts, products used for control, and population dynamics of the mosquito larvae collected.
- III. Using our previous years of data collecting in Adams County as a base, VDCI will continuously fine-tune our proprietary database to efficiently target larval mosquito control operational efforts. Our operations will include:
 - a. Targeted larval site inspections, as needed, at all previously identified and new found potential larval development sites. Site inspections will target larval sites based on past comprehensive site history data as recorded in our database. These data incorporate historic records of larval presence, larval densities, habitat size and type, water source, and weather data.
 - b. As sites are found that contain mosquito larvae, VDCI will first look to cultural or physical controls to reduce or eliminate standing water and larval development. Water management and source reduction including clearing clogged ditches, hand digging of channels, and working with property owners to mitigate these sites will be implemented when applicable.

- c. VDCI will then, as appropriate, treat sites where mosquito larvae are detected with a “Prescription-oriented” least-toxic, biological control appropriate to the site. Larval control products will include; Vectobac (Bti), Vectolex (Bs), Altosid (methoprene), BVA 2 (highly refined mineral oil) and other registered larval control products as needed. All applications will be within label-specified rates and recorded in our database.
- IV. VDCI will perform 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 to 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.



VDCI's LARVAL MOSQUITO CONTROL RESOURCES

- † **Professional Staff:** VDCI will devote full-time field technicians and a Qualified Supervisor (licensed through the CO Dept. of Ag) to perform IMM-based larval mosquito control operations in Adams County. These technicians are fully trained via VDCI's classroom and field training program, and far exceed the minimum training standards set by the Colorado Department of Agriculture. Management of the program is led by Rob Kozar, a highly experienced, full-time VDCI employee and a licensed Qualified Supervisor in Public Health (110) through the CO Dept. of Agriculture. All larval mosquito control work will be done by employees of Vector Disease Control International, who will be covered by VDCI's Worker's Compensation Insurance, and will not be subcontracted out.



- † **Equipment:** Every technician will have access to a VDCI-owned fleet vehicle which is fully insured under VDCI's master commercial fleet policy and is equipped with all necessary larval surveillance equipment, larval control application equipment, and biological larvicide products.



- † **Infrastructure:** Because much of VDCI's operations are targeted toward larval mosquito control, many of our resources are used on infrastructure to facilitate these operations. VDCI's warehouses, material handling equipment, supply chain, data input, vehicle fleet, and application equipment are all designed to support our larval control operations.
- † **Technology:** VDCI's proprietary and advanced database system will be used to analyze historical breeding site data, which decreases our environmental impact by targeting site inspections and microbial larvicide control applications.

We have specifically engineered our database with proprietary algorithms and reporting capabilities to utilize historical data collected from Adams County and other communities throughout Colorado to precisely target larval mosquito control locations, reducing unnecessary treatments. Targeting our applications with our historical data allows our operations to provide the highest level of control while minimizing the quantity of larvicide being applied to the environment.

4. ADULT MOSQUITO SURVEILLANCE TRAPPING

I. VDCI will conduct extensive adult mosquito surveillance trapping during the mosquito season (approximately the beginning of June through the end of August, weather permitting *or as requested by an authorized County Representative*) to monitor mosquito-borne disease risk and nuisance mosquito population levels. Trapping of adult mosquitoes at minimum will include:

- a. Weekly trapping at four (4) pre-determined permanent surveillance locations within the Adams County Mosquito Control Service Area. Samples may be tested for West Nile Virus in cooperation with Adams County and the Colorado Department of Public Health and Environment.
- b. As necessary, VDCI may provide additional trapping with “floater” traps in areas of the County that are not covered by one of the permanent trap locations. Floater traps and Landing Rate Counts may be used to determine adult mosquito populations in areas where citizen complaints regarding high numbers of mosquitoes have been received and to determine whether spraying for adult mosquito control is needed (see Adult Mosquito Control, below.)
- c. CDC light traps, baited with dry ice (CO₂), will be used for permanent and floater surveillance trapping operations.
- d. Identification to genus and species, and total counts of adult mosquitoes will be completed within 24 hours of delivery of the specimens to VDCI’s lab if possible. Counts using statistically valid sampling methods will be used in large trap sample sizes (over 300 mosquitoes/trap).
- e. VDCI will maintain trap data via our proprietary database and make it available to Adams County Representatives.
- f. All mosquito trapping activities including the submission of mosquito pool specimens will be conducted in accordance with the protocols established in the CDPHE 2018 Mosquito Surveillance Plan.



VDCI's MOSQUITO SURVEILLANCE & LABORATORY RESOURCES

† **In-House Larval and Adult Mosquito Identification** is critical to accurate surveillance and timely response to spikes in vector and nuisance mosquito populations. While VDCI technicians are trained to perform larval field ID to the genus level, larvae may be periodically brought to VDCI's labs for comprehensive identification to the species level. VDCI ensures that highly trained lab ID specialists, who have access to high quality stereo zoom microscopes and scientific keys, perform the identification of both larval and adult mosquito species.



† **Management:** All VDCI surveillance and laboratory services are managed by Dr. Michael "Doc" Weissmann. Dr. Weissmann holds a Ph.D. in Entomology from Colorado State University. Dr. Weissmann is a renowned expert in Dipteran biology and taxonomy.

† **Personnel:** VDCI has 8 full-time field surveillance and laboratory technicians trained in mosquito trap operations and taxonomic identification of larval and adult mosquitoes to species level. All adult mosquito surveillance trapping will be done in-house and will not be subcontracted. Operation of the adult mosquito surveillance trap network will be completed by trained employees of Vector Disease Control International.



† **Equipment:** The VDCI Surveillance Laboratories are fully equipped with 8 stereo zoom binocular microscopes, including one video/photographic microscope capable of projecting microscopic images onto computer screens or to projection equipment for wall sized viewing.

VDCI owns and maintains more than 100 CDC dry-ice baited Light Traps and 20 Reiter Gravid Traps and all associated equipment and hardware.

† **Infrastructure:** VDCI has over 500 sq. ft. of devoted Surveillance Laboratory facilities and an additional 100 sq. ft. of trap maintenance and dry ice storage space. In addition to the above mentioned equipment, VDCI's lab facilities include other important equipment such as a deep freezer, multiple computer workstations, mobile dry ice holding containers, and a fleet of fuel-efficient vehicles specifically designated for surveillance operations.

† **Technology:** All data generated and collected by the Surveillance and Laboratory staff is entered into VDCI's database system **within 24 hours** of processing.

5. ADULT MOSQUITO CONTROL

- I. In keeping with the framework of an IMM approach to mosquito control, VDCI will focus on minimizing the use of chemical pesticides and understands that adulticides are the last resort when dealing with the biting adult stage of the mosquito. The program offered by VDCI will implement adult mosquito control applications as a final resource option, in the interest of public health and safety, as well as environmental sensitivity. VDCI acknowledges and will execute the preference of biological controls, larvicides, over chemical controls, adulticides.

To control adult mosquitoes that exceed pre-set threshold levels or present a public health threat due to mosquito infections rates or elevated vector populations, a prescription-based adulticiding program will be used. VDCI has not, and will not, subcontract ground-based ULV adulticide applications. All vehicles and equipment used in adult mosquito control operations will be owned and insured by VDCI.

- II. The use of chemical adulticide spray applications to control adult mosquitoes will be performed according to the following guidelines:
 - a. Permethrin/PBO formulations such as AquaKontrol, Pursuit 4-4, and Aqualuer (or other products with similar/less toxicity as approved by the County), will be applied within the EPA registered application rates via Ultra Low Volume (ULV) dispersal equipment.
 - b. Truck-mounted ULV dispersal will be the primary application method (ATV or hand-held ULV equipment may be used where appropriate). All ULV equipment shall be calibrated as needed, but not less than once annually.
 - c. In-cab GPS equipment will be used to map all routes and observe shutoff requests and provide accurate record keeping. Real-time data, collected during the applications, will be used to produce detailed post-application maps depicting the vehicle's path, with areas treated and not treated clearly labeled, along with reports for all adulticide applications.
 - d. Adulticide applications may be used *only* when nuisance or vector mosquitoes cannot be controlled to satisfactory levels by any other means (e.g. water management, vegetation control, biological controls, larvicide, etc.) and when any one of the following conditions exist:
 - There is an imminent threat of mosquito-borne disease transmission as directed by Adams County in cooperation with the Colorado Department of Health and Environment, or
 - When 100 adult mosquitoes are collected from any permanent CDC mosquito trap in a given night, or
 - In other areas of the County not routinely trapped, if a "floater" trap is set and there are 100 or greater adult mosquitoes captured per trap per night.

III. VDCI will coordinate with Adams County officials to schedule and perform Barrier Backpack applications using the residual adulticide TalStar (or comparable mosquito barrier products) and/or Ground-based Truck ULV mosquito spraying in Adams County Parks for outdoor community events. Applications of mosquito adulticides and or barrier products will typically be performed on the day of, or evening prior to, any scheduled and agreed upon County events.

In addition, VDCI will make available to residents of Adams County private Barrier applications at an additional per service cost. The price of each application is determined by the size and complexity of the treatment area. *Payment of these private treatments is the sole responsibility of the property owner.*



VDCI's ADULT MOSQUITO CONTROL RESOURCES

- † **Personnel:** All ground-based adult mosquito control applications are performed by VDCI management staff and veteran seasonal employees with specialized training in ULV (ultra-low volume) adulticide spraying and will not be subcontracted. Currently VDCI has over 15 fully trained personnel capable of performing ground based ULV applications. This level of staffing and expertise can handle any typical weekly application needs or even any atypical public health emergency situation at a moment's notice.
- † **Technology:** VDCI will use the most advanced truck-mounted ULV application equipment available to provide great accountability in all phases of the application. Several vehicles will be equipped with GPS tracking units capable of delineating the spray routes of the vehicle. These units record at three (3) second intervals the date, time, latitude, longitude, and sprayer status (on or off). Detailed maps, graphically illustrating the application data, can be produced after each spray operation and provided to the County upon request. Our technology can also identify and mark all properties that have requested to be call notified and/or shutoff from any adulticide applications in their area.
- † **Application Accountability:** Our primary objective whenever we apply pesticides is to achieve the greatest possible level of mosquito reduction while minimizing pesticide use in as environmentally accountable manner as possible. This commitment can be evidenced by our investment in application technologies such as on-board mapping, monitoring systems, and droplet measuring equipment. Together, these instruments allow us to not only apply the proper amount of product in the proper treatment area, but they also allow us to monitor every aspect of the application event. Consequently, pesticide application is maximized in the target area and the risk to adjacent, non-target areas is greatly minimized.



VDCI utilizes a proprietary live-mapping display that provides unparalleled accuracy of ground ULV treatments. Our on-board, computer-based GPS mapping and tracking system has the ability to provide accurate ULV treatments within the designated spray blocks/areas. This technology will be used in Adams County during the 2019 – 2021 mosquito seasons.

Variable flow technology assures accurate insecticide application rates that will deliver the proper amount regardless of vehicle speed. Post treatment maps will contain the insecticide name, registration number, the total amount of product used in the

treatment, and the dates and times of the treatment along with a delineation of the movements of the vehicle within the treatment area. This allows for unparalleled accuracy and accountability.

- ✦ **Equipment and Capabilities:** With our large fleet of truck-mounted ground-based ULV adulticiding equipment, VDCI has the capacity to cover more than 1,250 linear miles of streets and roadways in ONE NIGHT. That equates to over 70 square miles or over 45,000 acres per night. In 2019, VDCI will have more than 12 spray units available on the Front Range of Colorado alone, with an additional 8 units on the western slope.
- ✦ **VDCI's History:** VDCI has extensive experience with emergency and comprehensive adult mosquito control applications. VDCI (as CMC) was the contractor hired by the Larimer and Weld City Departments of Health and Environment, as well as the Cities of Fort Collins, Loveland and Longmont during the West Nile Virus Public Health Spraying in 2007, 2012, 2013 and 2015. VDCI not only has the capacity, with respect to equipment and staffing, but possesses the expertise and experience needed when scheduling, planning, and supplying the required materials. VDCI has always been able to coordinate emergency response applications in a moment's notice. We pride ourselves on our ability to meet the needs and specifications of our municipal accounts to successfully achieve the objectives of suppressing West Nile risks, all within accordance of the guidelines set forth by the CDC and Colorado Department of Agriculture.



VDCI'S PUBLIC HEALTH EMERGENCY SURVEILLANCE & ADULTICIDE SERVICES

We have included contractual price quotes for additional vector mosquito surveillance trapping and a per mile cost for additional adulticide applications in the event of a large-scale public health emergency. At the request of the County, and in consultation with CDPHE and CDC Ft. Collins, Vector Disease Control International will provide the following Optional Public Health Emergency Services at an additional cost:

† **CDC Light Trap and/or Reiter Gravid Trap Surveillance**

Upon request, VDCI will operate additional CDC light traps and/or Reiter gravid traps for expanded adult mosquito and disease vector mosquito surveillance within Adams County.

Identification of the trapped mosquitoes will be performed the following day after the mosquitoes are returned to the lab. The trapped mosquitoes will be counted and identified to the following species; *Culex tarsalis*, *Culex pipiens*, *Aedes/Ochlerotatus* species.

Cost per trap/night: \$100.00

Cost includes all equipment, dry ice, vehicles, labor, shipping and reporting.

† **Ground-based Truck ULV Adulticide Application**

VDCI will undertake emergency ground-based truck ULV adulticide spraying in accordance with U.S. EPA, Colorado Dept. of Agriculture, and Colorado Dept. of Health and Environment regulations in the event of a declared public health state of emergency that exceeds the scope of the existing program. VDCI will, at the County's request, organize and coordinate all spraying operations for public health response.

Cost per linear spray route mile: \$85.00

Cost includes all equipment, vehicles, pesticide products, labor, and liability insurance.

† **Aerial ULV Adulticide Application via Fixed-Wing or Rotary-wing Aircraft**

VDCI has extensive experience with aerial mosquito control application and would oversee and direct such applications. All aerial adulticide applications would be performed by experienced and insured aerial applicators, licensed through the Colorado Department of Agriculture. This work would be done through Vector Disease Control International's aerial division. Prices would be subject to the size of the designated spray area, application material selected, and current pricing.

6. PUBLIC OUTREACH & EDUCATION

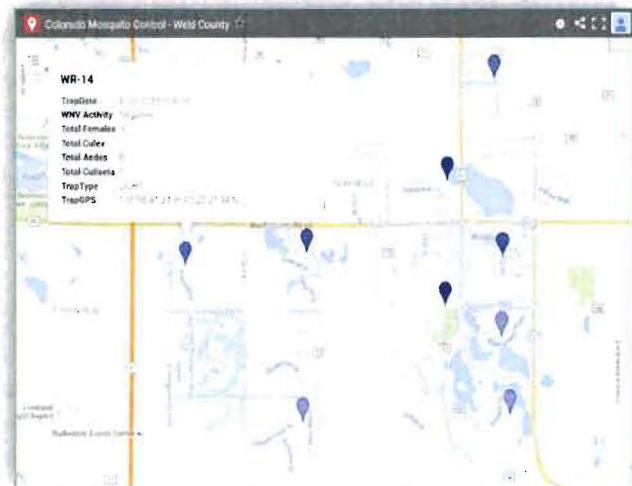
Since our inception in 1992, VDCI has believed in and demonstrated that a strong Public Outreach and Education Program is one of the keys to success in providing large-scale municipal mosquito control programs. Listening to citizen complaints and inquiries can aid in evaluating the effectiveness of a program. VDCI constantly looks for ways to better serve the communities we work with and appreciates citizen involvement in the betterment of the program. We have clearly demonstrated our commitment and belief in the strength of public outreach and education by proactively serving Adams County over the years with numerous innovative programs, activities and services as described below.

VDCI WEBSITE

Our website, www.vdci.net/colorado, is the leading website in the State of Colorado when it comes to providing up-to-date, factual, and comprehensive information on, and links to, mosquito biology and control, mosquito-borne diseases, pesticide toxicology information, and a wealth of topics relating to mosquitoes. VDCI will continue to maintain this website, including daily spray schedules of planned adulticide areas within Adams County.

Our website continues to serve as an integral part of the dissemination of operational data to citizens with little request for resources or time required by the County and its employees.

VDCI maintains and will continue to maintain website links to CDPHE (Colorado Dept. of Public Health & Environment), and NPIC (National Pesticide Information Center and CDC (US Centers for Disease Control).



MOSQUITOLINE™

VDCI will continue to maintain a toll-free telephone line at **(877) 276-4306** for customer service calls. We will accept calls from the public at any point concerning, but not limited to the following topics:

- Opting out of any adulticide spraying via a “shut-off list” which is updated annually and as new requests are received from private property owners.
- Request a telephone or email notification when adulticide spraying is planned in and around their neighborhood.
- Report mosquito annoyance areas and request floater traps at their residence.

- Report standing, stagnant water that may indicate the presence of larval sites or adult mosquito harborage.
- Request information about mosquito populations within the community.
- Request information on how to control and/or prevent mosquitoes on their property and mosquito-borne diseases such as WNV, WEE and SLE.
- Request health and safety information about mosquito control operations and pesticide products used in Adams County Mosquito Control Services Program.
- Request backyard inspections and information on inspection activity and larval production at sites of interest.

VDCI will maintain a log of calls received including date, name, address, type of call, response, resolution, and resolution date.

IMMEDIATE RESPONSE™

VDCI introduced the concept of a 24-hour response/resolution time to all mosquito annoyance complaints in 1994 with our trademarked ImmediateResponse™ System. VDCI will continue to respond accordingly to all mosquito related complaints and will refer any service related complaints to Adams County.

- VDCI will verify the validity of mosquito annoyance complaints by on-site inspection including; adult mosquito trapping via nearby pre-determined trap locations or floater traps, as needed, or landing rate counts (10 females mosquitoes per 5 minute period = annoyance level) and/or larval dip surveillance in local breeding sites.
- VDCI will resolve all complaints, *whenever possible*, within 24-hours to the satisfaction and standard of Adams County.
- VDCI will provide education, either verbally or through printed materials to the complainant in an effort to promote self-management of local mosquito problems.

CALL AND EMAIL NOTIFICATION AND SHUTOFF SYSTEM

VDCI will continue to maintain a comprehensive Call and Email Notification & Shutoff database and will notify residents on the list when conducting ULV adulticide applications near their property. All Shutoff locations are mapped in ArcGIS. Notification & Shutoff forms are available online and may be submitted via VDCI website, email or by mail. VDCI will mail

renewal request forms each season and perform all updating of resident information as it is received.

INFORMATIONAL PAMPHLETS AND PRESENTATIONS

VDCI will provide Adams County employees, Utility Workers, Senior Citizens and any other “at risk” individuals exposed to mosquito bites from outdoor work, or at higher risk for contracting mosquito-borne illness, with informative presentations or brochures about personal protection, repellents, West Nile Virus activity and ways to reduce mosquitoes by eliminating standing water.

Additionally, these educational fliers and pamphlets are always available to the public and may be distributed at numerous public events each summer.

DAILY POSTING OF ULV SPRAY ZONES

Areas scheduled for ULV truck spraying will be posted by 3pm daily on VDCI’s website: www.vdci.net/colorado

WELD COUNTY

Town of Johnstown, Thompson River Ranch, Jt Central, Rolling Hills Ranch

Tuesday, August 29

Dacoro, Sharpe Farms, Sweetgrass, Eagle Meadow

Garden City, Town Limits

Gilcrest, Town Limits

Greeley North Public Works area, Island Grove Park, Coyote Run area, Eppie Park/Pheasant Run, Countryside

 Google Calendar

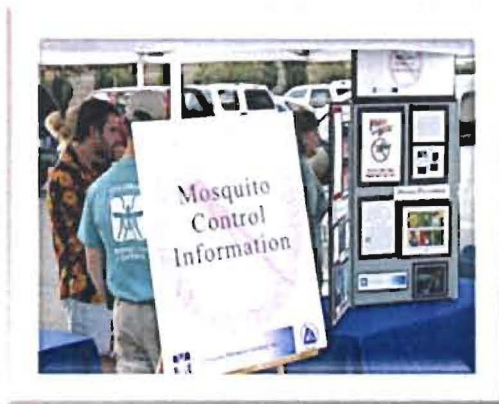


VDCI is a company built on the foundations of public health, ethics, professionalism, and technical expertise. We establish vector management programs that are based on an understanding of the underlying vector’s ecology and rooted in the current science of environmentally sound control measures. To learn more about VDCI services, gain greater insight on the various mosquito species as well as the potential diseases they vector, please subscribe to our blog.

We are committed to protecting public health through excellence in vector management and we are proud to serve your community!

VDCI's PUBLIC OUTREACH PROGRAM & EDUCATION RESOURCES

- † **Innovative Programs:** VDCI has worked with dozens of municipalities on numerous public events across the state since our inception to supply information and provide personalized educational programs about mosquitoes, mosquito-borne illness, and public health. We have also provided personnel, larval and adult mosquito specimens, equipment such as light traps and microscopes, signs, etc. to various groups in need of such educational items. We have set-up booths at Fairs, Farmers' Markets and during West Nile Virus education outreach events in past years and will continue to do so for our customers.
- † **Technology:** VDCI was one of the first mosquito control organizations in the United States to publish adult mosquito control spray schedules on the web. Additionally, our website www.vdci.net/colorado has been a leading source for up-to-date, factual and comprehensive information on, and links to, mosquito biology and control, mosquito-borne disease, pesticides, and many other issues relating to mosquitoes in the State of Colorado (and the US) for several years.



7. REPORTING

- I. VDCI will provide all maps, records, logs, complaints, correspondence, and reports to Adams County, where applicable and as requested by the County, in a common, easy to use, electronic/digital format or hard copy. All data listed above will be provided within 2 weeks of request, if not sooner.
- II. VDCI will provide Adams County Representatives with weekly trap counts, prior to close of business on Friday of each week (barring extenuating circumstances).
- III. VDCI will submit monthly reports of operational efforts during the months of May-September by the 15th of the following month. Monthly reports will include, at a minimum:
 - Updates on disease vector mosquitoes: local, state and national
 - Overall mosquito surveillance operations and breeding site activity
 - Larval control operations
 - Adult control operations
 - Chart all activity:
 1. Larval inspection and control data
 2. Adult surveillance data
 3. Adulticide data
- IV. VDCI will submit an annual report by November 30th of the current contract year. At minimum, the annual report will include:
 - Mosquito Control Objectives
 - Detailed overview of the previous season
 - WNV, Western Equine Encephalitis and St. Louis Encephalitis overview
 - Larval mosquito surveillance and control
 - Adult surveillance & laboratory results
 - Adult mosquito control data
 - Public relations and education activities
 - Summaries
 - Graphs, charts and data summaries
 - Any other pertinent information

VDCI'S REPORTS AND RECORD KEEPING RESOURCES

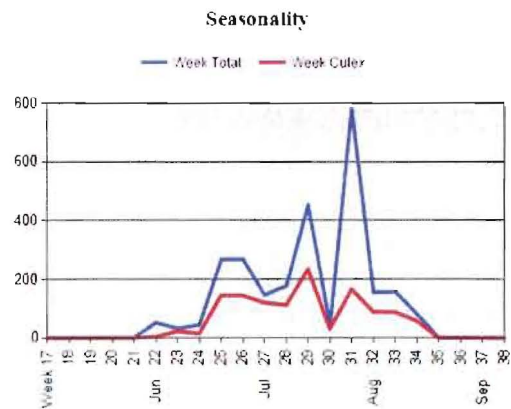
- † **Personnel:** VDCI has dedicated office staff to handle all incoming telephone communications, computer data entry, website and notification updates, and report generation.
- † **Equipment and Technology:** VDCI possesses a state-of-the-art server supported computer network with T-1 high-speed internet access, numerous computer workstations, printers, faxes, and scanners, all designed to support our proprietary database and ArcGIS software systems. At VDCI, we view technology as the key to continued effective, efficient, cost-beneficial and environmentally sound mosquito control for today and well into the future.

2018 Adams County CDC Trap Composite Data

Total number of trap-nights set:	43
Total number of mosquitoes collected:	9,416
Average mosquitoes per trap/night:	219
Average Culex per trap/night:	98

Species collected and abundance:

<i>Aedes (Oe.) dorsalis</i>	283	3.0 %
<i>Aedes (Oe.) triseriatus</i>	5	0.0 %
<i>Aedes (Oe.) melanotus</i>	42	0.4 %
<i>Aedes (Oe.) sierrensis</i>	2	0.0 %
<i>Aedes (Oe.) albopictus</i>	142	1.5 %
<i>Aedes vexans</i>	4572	48.6 %
<i>Aedes Ochlerotatus spp</i>	15	0.2 %
<i>Anopheles hamaxi</i>	2	0.0 %
<i>Culex erythrothorax</i>	21	0.2 %
<i>Culex clemens</i>	987	10.5 %
<i>Culex salinarius</i>	761	8.1 %
<i>Culex tarsalis</i>	2466	26.2 %
<i>Culiseta inornata</i>	120	1.3 %



Genus proportions:

Genus	Number	Percent of Total
<i>Aedes Ochlerotatus</i>	5,059	53.7 %
<i>Anopheles</i>	2	0.0 %
<i>Culex</i>	4,235	45.0 %
<i>Culiseta</i>	120	1.3 %
Other	0	0.0 %



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SECTION III. VDCI KEY MANAGEMENT AND PERSONNEL

Vector Disease Control International is a professional organization dedicated to providing comprehensive state-of-the-science large-scale mosquito control contracted services to municipalities and other organizations. VDCI's mosquito management programs are designed, implemented, and supervised by experienced, trained, and licensed personnel with over 80 years of combined field mosquito control experience, including Board Certified Entomologists.

Robert Kozar

Operations Manager and Front Range Regional Director

Over 14 years experience in municipal mosquito control operations and management.

Education:

B.A. in History (1990), University of Illinois at Chicago.

Memberships:

American Mosquito Control Association

West Central Mosquito & Vector Control Association

Licensed:

Qualified Supervisor - Colorado Department of Agriculture: Public Health 110

Michael J. "Doc" Weissmann, Ph.D.

Chief Entomologist/Surveillance Manager

30 years experience with insect identification, behavior, and public education. Faculty Affiliate in the Department of Bioagricultural Sciences and Pest Management at Colorado State University, Ft. Collins, Colorado.

Education:

B.A. in Environmental, Population, and Organismic Biology (1982 Graduated with Distinction and elected to Phi Beta Kappa), University of Colorado at Boulder.

M.A. in Environmental, Population, and Organismic Biology (1986), University of Colorado at Boulder. M.A. thesis research focused on the biology of the water-stick insect, *Ranatra fusca*, in Colorado and their potential as a biological control agent against mosquitoes.

Ph.D. in Entomology (1995), Colorado State University at Ft. Collins. Dissertation research focused on the biology of the giant sand treater camel cricket, *Daihinibaenetes giganteus*, at Great Sand Dunes National Monument, Colorado.

Memberships:

American Mosquito Control Association

West Central Mosquito and Vector Control Association

Licensed:

Qualified Supervisor – CO Dept of Agriculture: Public Health 110 & Aquatics 108

Daniel Markowski, Ph.D.**Entomologist/National Operations Director**

Dr. Markowski has been involved in pest control practices for over 25 years, highlighted by his involvement in several mosquito-borne disease outbreaks throughout the nation.

Education:

B.S. in Biology (1991), Memphis State University. Emphasis in Entomology, focusing on the management of pest species.

M.S. in Zoology (1993), University of Rhode Island. Thesis research concentrated on the bionomics of deer ticks, *Ixodes scapularis*, and their role in Lyme disease transmission.

Ph.D. in Biology (1998), University of Rhode Island. Dissertation research focused on the genetic analysis of northeastern populations of *Ixodes scapularis* using molecular analysis tools.

Seasonal Staff:

All VDCI seasonal employees are fully trained per Colorado Department of Agriculture regulations in all aspects of modern mosquito control operations, including; mosquito biology, field inspection and surveillance techniques, safe handling and application of pesticides and public relations. VDCI will hire and train additional employees as required to fulfill our contractual obligations.

SECTION IV. REFERENCES

City of Fort Collins

Mr. Matt Parker
1745 Hoffman Mill Road
Fort Collins CO, 80524
(970) 416-2815
MParker@fcgov.com

City of Longmont

Mr. Dan Wolford, Dir. Of Open Space
350 Kimbark St.
Longmont, CO 80501
(303) 774-4691
dan.wolford@ci.longmont.co.us

Town of Parker

Mr. Tom Williams
Director of Public Works and Engineering
2012 East Mainstreet
Parker, CO 80138
(303) 840-9546
twilliams@ci.parker.co.us

Additional references will be provided upon request.

SECTION V. PROGRAM COST

At VDCI, we fully understand our customers' need for a professional, reliable and environmentally responsible mosquito control contractor. Hence, we are offering a level service above and beyond the specifications normally required of a mosquito control services provider, such as state-of-the-art technology and GIS mapping, unlimited ground larvicide applications, extensive larval and adult mosquito surveillance, prescription-based adult mosquito control spraying, assistance with public outreach, and full reporting of all applications and quality control measures, for a single yearly cost to the County.

The amount listed is all-inclusive with no additional charges or costs. VDCI continues to experience significant annual increases in our costs for office leases, liability insurance, pesticide, equipment, and labor. Despite these increases however VDCI proposes that we keep our 2019 price *the same* as requested in our original 2019 Renewal Letter - \$225,832.00. Subsequent annual price increases will be at a fixed 2.0% rate (which is below the current Denver-Boulder-Greeley CPI rate as of this writing) for the remainder of the contract term (2020, 2021). Please keep in mind that the services offered and the prices quoted here can be discussed so that a program and price tailored to the specific needs of the County can be developed.

The schedule of total annual cost to Adams County for mosquito control services, to include labor, materials, vehicles, equipment, liability/auto/workers compensation insurance coverage, administrative support, and overhead expenses, as detailed in this proposal and subject to subsequent annual renewal is:

2019: \$225,832.00

2020: \$230,349.00

2021: \$234,956.00



COLORADO

Department of Agriculture

Division of Plant Industry

305 Interlocken Parkway, Broomfield, CO 80021
Tel: (303) 869-9066 Fax: (303) 466-2860

**COMMERCIAL APPLICATOR
CERTIFICATE OF LICENSE**

License Number: 10261

Effective Date: 01/11/2019

Date Issued: 01/16/2019

Good Through: 12/31/2019

ADVANCED PEST MANAGEMENT OF COLORADO, LLC

7000 N. BROADWAY SUITE 108

DENVER, CO 80221

DBA: COLORADO MOSQUITO CONTROL, LLC
VECTOR DISEASE CONTROL INTERNATIONAL LLC

This certificate is evidence that a license has been issued to the person(s) listed above to do business in the name(s) listed above under the provisions of the Pesticide Applicators' Act and may be revoked, suspended, or have other lawful discipline imposed for cause.

COMMISSIONER OF AGRICULTURE
Kate Greenburg



COLORADO

Department of Agriculture

Division of Plant Industry

305 Interlocken Parkway, Broomfield, CO 80021

Tel: (303) 869-9066 Fax: (303) 466-2860

COMMERCIAL APPLICATOR ENDORSEMENT

License Number: 10261
Date Issued: 01/16/2019

Effective Date: 01/11/2019
Good Through: 12/31/2019

Mailing Address:

ADVANCED PEST MANAGEMENT OF COLORADO, LLC
7000 N. BROADWAY SUITE 108
DENVER, CO 80221

Home/Records Address:

7000 N. BROADWAY SUITE 108
DENVER, CO 80221

Doing-Business-As Name(s) (DBA)

COLORADO MOSQUITO CONTROL, LLC
VECTOR DISEASE CONTROL INTERNATIONAL LLC

Contact: TIM BENNETT
Insurance Expires: 10/01/2019

Phone: (303) 428-5908
Aerial: N

This endorsement is valid for the following categories ONLY:

Agricultural:	108, 110
Ornamental:	
Structural:	

Qualified Supervisors

<u>Lic. #</u>	<u>Last Name</u>	<u>First Name</u>	<u>MI</u>	<u>Lic. Expires</u>
03047	KRUTHAAPT	CHRISTOPHER	G	12/09/2020
License Categories: 110				
20513	KOZAR	ROBERT	L	03/21/2020
License Categories: 110				
28021	WILLIAMS	MALCOM	G	11/20/2021
License Categories: 110				
28843	SHEAFFER	STEPHEN	J	08/24/2019
License Categories: 110				
30053	LAUTZENHEISER	ERIC		02/19/2021
License Categories: 110				
30352	BATES	NICHOLAS		03/05/2021
License Categories: 110				
30424	BENNETT	TIMOTHY		02/04/2021
License Categories: 110				
30814	BOZE	BROOX		03/18/2021
License Categories: 110				
31932	WEISSMANN	MICHAEL		02/24/2022
License Categories: 108 110				
32133	RODOSEVICH	NETTO		01/07/2022
License Categories: 108 110				
32889	KYER	MELISSA		05/28/2020
License Categories: 110				
33220	SCHLATMANN	WILLIAM		03/25/2020
License Categories: 110				
33267	RENFRO	KELSEY		11/26/2019
License Categories: 110				
34250	HYMES	STEPHEN	L	06/01/2020
License Categories: 110				
34544	LAMIELL	BENJAMIN	P	01/14/2021
License Categories: 110				
36368	ARMSTRONG	JOHN		08/04/2021
License Categories: 110				

Certified Operators

<u>Lic. #</u>	<u>Last Name</u>	<u>First Name</u>	<u>MI</u>	<u>Lic. Expires</u>
35005	BRAILSOFORD	DAVID	B	12/31/2019
License Categories: 110				

APPENDIX 2. CERTIFICATE OF COMPLIANCE

CONTRACTOR'S CERTIFICATION OF COMPLIANCE

Pursuant to Colorado Revised Statute, § 8-17.5-101, *et. seq.*, as amended 5/13/08, as a prerequisite to entering into a contract for services with Adams County, Colorado, the undersigned Contractor hereby certifies that at the time of this certification, Contractor does not knowingly employ or contract with an illegal alien who will perform work under the attached contract for services and that the Contractor will participate in the E-Verify Program or Department program, as those terms are defined in C.R.S. § 8-17.5-101, *et. seq.* in order to confirm the employment eligibility of all employees who are newly hired for employment to perform work under the attached contract for services.

CONTRACTOR:

Vector Disease Control International, LLC


Company Name

April 3, 2019

Date

Rob Kozar

Name (Print or Type)



Signature

Front Range Director

Title

VECTOR DISEASE CONTROL INTERNATIONAL, LLC.
ATTACHMENT "A"
Hold Harmless, Warranty, Disclaimer for Adams County
April 3, 2019

1. Hold Harmless Indemnity Clause:

Vector Disease Control International, LLC. ("VDCI") shall indemnify and hold harmless Adams County and its agents and employees from and against all claims damages, losses and expenses, including but not limited to attorney's fees, arising out of or resulting from the performance of the services, provided that any such claim, damage, loss or expense (1) is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom, and (2) is caused in whole or in part by any negligent act or omission of VDCI, any sub-contractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or otherwise reduce any other right or obligation of indemnity which would otherwise exist as to any party or person described in this paragraph.

Responsibility: liability. VDCI warrants that it will exercise in its performance of these services the standard of care normally exercised by nationally recognized organizations engaged in performing comparable services. VDCI shall be liable to Adams County for any loss, damages or costs incurred by Adams County because of VDCI's duties under this warranty.

2. Warranty & Disclaimer

Vector Disease Control International, LLC. ("VDCI") is engaged in the business of mosquito control and abatement, and has not been retained to eradicate the mosquito population in any particular area. There are severe, and sometimes fatal, consequences of some mosquito bites which may include transmission of certain serious diseases such as malaria, dengue fever, West Nile virus and several other forms of encephalitis. Not only can mosquitoes carry diseases which afflict humans, but they also can transmit several diseases and parasites that birds, dogs and horses and other animals are very susceptible to. These include dog heart worms, Western Equine Encephalitis and West Nile Virus. Because VDCI has not been retained to eradicate the mosquito population, VDCI can make no warranty, representation or guarantee, of any type, about the existence of mosquito borne diseases in the geographic area of the proposed area of contracting, or the potential for human or animal infection before, during or after the completion of the VDCI mosquito control services.

VDCI warrants that the services described in this proposal will be provided in a professional and business-like manner. Other than this warranty, VDCI makes no express or implied warranties, including without limitation, any express or implied warranties of merchantability or fitness for a particular purpose. Client understands and agrees that any liability of VDCI regarding the Project shall be limited to negligence of VDCI in the carrying out of its professional services under the

contract, and shall not include any special, incidental, consequential or punitive damages, or any damages based on any lost sales or profits.

VDCI will not be liable for any general, special, incidental or consequential damages for loss, damage or expense including but not limited to sickness, injury or death, loss of livestock or animals, or lost profits from any farm or ranching operations of any type from the mosquito control services provided by Vector Disease Control International, LLC.

3. No private vehicles will be operated in Adams County in connection with the Mosquito Control Program.

4. Workman's Compensation, Automotive and General Liability Insurance are in place.
(Certificates available upon request)

5. Ownership of Work Product

The parties recognize and agree that Vector Disease Control International, LLC. (VDCI) in the course of mosquito control program design, development and implementation prepares and utilizes many documents, maps, data sets and files including GIS (geographic Information system) data and files. Such information is proprietary, a trade secret and the confidential work product of Vector Disease Control International, LLC. VDCI retains all, rights, copyrights and ownership to all work prepared, developed or created pursuant to this contract. Adams County may, with written permission, utilize the data and documents internally, but will not distribute or display to the public copies of such data, files, and documents or prepare derivative work or products.

6. Independent Contractor.

The parties recognize and agree that the Contractor is an independent contractor for all purposes, both legal and practical, in performing services under this Agreement, and that the Contractor and its agent and employees are not agents or employees of Adams County for any purpose. As an independent contractor, the Contractor shall be responsible for employing and directing such personnel and agents as it requires to perform the services purchased hereunder, shall exercise complete authority over its personnel and agents, and shall be fully responsible for their actions.

Contractor acknowledges that it is not entitled to unemployment insurance benefits nor worker's compensation benefits from Adams County, its elected officials, agents, or any program administered or funded by Adams County. Contractor shall be entitled to unemployment insurance or worker's compensations insurance only if unemployment compensation coverage or worker's compensation coverage is provided by the Contractor, or some other entity that is not a party to this contract. Contractor is obligated to pay Federal and State income tax on any monies earned pursuant to the contract relationship.

VECTOR DISEASE CONTROL INTERNATIONAL, LLC.

ATTACHMENT "B"

2019-2021 CONTRACTUAL SERVICE COST AGREEMENT

April 3, 2019

For Adams County for the 2019-2021 seasons only;

Service costs include all labor, insecticides, vehicles and equipment, administrative support and overhead expenses. **Service Cost for 2019: \$225,832.00**

THREE YEAR CONTRACT: This Integrated Mosquito Management Services Proposal is offered for a three year period, 2019-2021 with a 2% annual price increase. *The yearly continuation of this project is subject to the appropriation of funds by Adams County on an annual basis for this purpose.* Signing and returning the attached copy of the contractual agreement will authorize VECTOR DISEASE CONTROL INTERNATIONAL, LLC. to perform the service items contained in the Proposal, within the stipulated limits, for a period of three years, 2019 through 2021 seasons. Adams County also agrees to the terms set forth in Attachment "A". These prices are complete and fully earned. Billing will be in 6 equal monthly installments (April - September). If new areas are to be covered they will be added at the current unit rate.

For acceptance of this Integrated Mosquito Management Services Proposal for a period of THREE YEARS (2019-2021), Sign Here:

Name (X) _____ Title _____ Date _____

For Vector Disease Control International, LLC.

Name Rob Kozar Title Front Range Director Date April 3, 2019

Invoices should be sent to:

Name _____ Title _____
Address _____ Phone _____
City, State, Zip _____ Email _____

Please Keep This Copy for Your Records

VECTOR DISEASE CONTROL INTERNATIONAL, LLC.

ATTACHMENT "B"

2019-2021 CONTRACTUAL SERVICE COST AGREEMENT

April 3, 2019

For Adams County for the 2019-2021 seasons only;

Service costs include all labor, insecticides, vehicles and equipment, administrative support and overhead expenses. **Service Cost for 2018: \$225,832.00**

THREE YEAR CONTRACT: This Integrated Mosquito Management Services Proposal is offered for a three year period, 2019-2021 with a 2% annual price increase. *The yearly continuation of this project is subject to the appropriation of funds by Adams County on an annual basis for this purpose.* Signing and returning the attached copy of the contractual agreement will authorize VECTOR DISEASE CONTROL INTERNATIONAL, LLC. to perform the service items contained in the Proposal, within the stipulated limits, for a period of three years, 2019 through 2021 seasons. Adams County also agrees to the terms set forth in Attachment "A". These prices are complete and fully earned. Billing will be in 6 equal monthly installments (April - September). If new areas are to be covered they will be added at the current unit rate.

For acceptance of this Integrated Mosquito Management Services Proposal for a period of THREE YEARS (2019-2021), Sign Here:

Name (X) _____ Title _____ Date _____

For Vector Disease Control International, LLC.

Name  Title Front Range Director Date April 3, 2019
Rob Kozar

Invoices should be sent to:

Name _____ Title _____
Address _____ Phone _____
City, State, Zip _____ Email _____

Please Return This Copy to Vector Disease Control International