

**RESOLUTION NO. 2065**

**A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF GOLDEN APPROVING AN INTERGOVERNMENTAL AGREEMENT BETWEEN THE CITY OF GOLDEN AND JEFFERSON COUNTY PUBLIC HEALTH FOR THE 2010 INTEGRATED MOSQUITO MANAGEMENT PROGRAM**

WHEREAS, the City of Golden's Home Rule Charter authorizes the City to enter into intergovernmental agreements for the provision of services; and

WHEREAS, Jefferson County Public Health has contracted with Otter Tail Environmental Inc., ("Otter Tail"), to implement an integrated mosquito management program that will combat the threat of mosquito-borne transmission of West Nile Virus, and other arboviral diseases within Jefferson County; and

WHEREAS, the City benefits by coordinating its mosquito management activities with Jefferson County Public Health; and

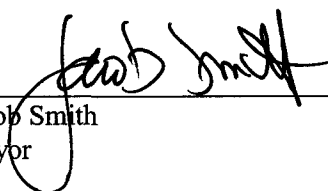
WHEREAS, Jefferson County Public Health shall, upon receipt of an executed intergovernmental agreement, direct Otter Tail to perform integrated mosquito management program activities within designated areas of the City; and

WHEREAS, pursuant to the intergovernmental agreement the City's payment for integrated mosquito management services shall not exceed \$11,509.50.

THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF GOLDEN, COLORADO THAT:

The Intergovernmental Agreement between the City of Golden and the Jefferson County Public Health for an integrated mosquito management program for 2010 is approved in substantially the same form as the copy attached hereto as Exhibit A and made a part of this resolution. The Mayor is authorized to execute the agreement on behalf of the City.

Adopted this 8th day of July, 2010.

  
\_\_\_\_\_  
Jacob Smith  
Mayor

ATTEST  
  
  
\_\_\_\_\_  
Sh. Burt, MMC  
City Clerk

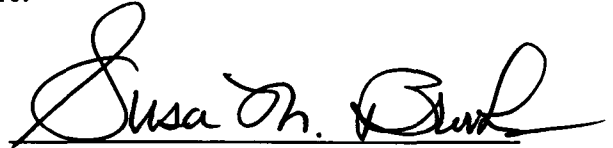
APPROVED AS TO FORM:



\_\_\_\_\_  
David S. Williamson  
City Attorney

I, Susan M. Brooks, City Clerk of the City of Golden, Colorado, do hereby certify that the foregoing is a true copy of a certain Resolution adopted by the City Council of the City of Golden, Colorado at a regular business meeting thereof held on the 8th day of July, A.D., 2010.

(SEAL)



\_\_\_\_\_  
Susan M. Brooks, City Clerk of the City of  
Golden, Colorado

**INTERGOVERNMENTAL AGREEMENT FOR INTEGRATED MOSQUITO MANAGEMENT**

**THIS INTERGOVERNMENTAL AGREEMENT** is made and entered into and effective as of the \_\_\_ day of \_\_\_\_\_, 2010, between **JEFFERSON COUNTY PUBLIC HEALTH**, whose address is 1801 19<sup>th</sup> Street, Golden, CO 80401, hereinafter referred to as the "Health Department"; and the **CITY OF GOLDEN**, a municipal corporation of the State of Colorado, with its principal office located at 911 10<sup>th</sup> Street, Golden, CO, hereinafter referred to as "Golden."

**WITNESSETH:**

**WHEREAS**, the primary objective of public health mosquito control is to prevent the mosquito-borne transmission of diseases to humans, livestock, and domestic pets, and

**WHEREAS**, in order to effectively deal with the continuing threat of mosquito-borne transmission of West Nile Virus and other arboviral diseases, the Health Department has contracted with OtterTail Environmental, Inc., ("OtterTail") to provide Integrated Mosquito Management ("IMM") services within certain areas of Jefferson County, Colorado during the year 2010, and

**WHEREAS**, these services shall be provided to Jefferson County and various municipalities within Jefferson County, and

**WHEREAS**, said IMM services are detailed in a document entitled PURCHASE OF SERVICES AGREEMENT, signed May 7, 2010 and approved by the Board of Health on April 20, 2010; a copy of which is attached hereto and incorporated herein as **Attachment A**, and

**WHEREAS**, the City of Golden will benefit from the IMM services as detailed in **Attachment A** for an area of approximately 8.3 square miles located within the boundaries of Golden, and

**WHEREAS**, the parties now desire to enter into this Intergovernmental Agreement so as to memorialize their agreement with respect to their respective responsibilities regarding the provision of and payment for such IMM services within Golden's boundaries.

**NOW, THEREFORE**, in consideration of the mutual promises and covenants contained herein, the parties hereto agree as follows:

1. **HEALTH DEPARTMENT RESPONSIBILITIES:** Upon the signing of this Intergovernmental Agreement by the parties hereto, the Health Department will direct OtterTail, during the year 2010, to perform the IMM services set forth in **Attachment A** for an area of approximately 8.3 square miles located within the boundary of Golden. The services and service fee do not include adulticide services. The Health Department will monitor the need for adulticiding and will advise the County and all participating municipalities if an adulticide program is recommended and approved by the Board of Health and Board of County Commissioners.
2. **GOLDEN RESPONSIBILITIES:** Golden shall designate a point of contact for communication with the Health Department; refer citizen complaints to OtterTail; coordinate with the Health Department on IMM services or concerns; and advise the Health Department, by report, of the IMM services, if any, conducted or directed by Golden. The IMM service reports shall be submitted on a monthly basis on or before the 5th of the month effective July 2010 and ending October 2010. The monthly IMM service report, with the notation "re: West Nile IGA Report", shall be sent to Jefferson County Public Health, 1801 19th Street, Golden Colorado 80401.
3. **MONITORING THE PROVISION OF IMM SERVICES:** Staff from the Health Department will monitor the work of OtterTail in Golden to ensure that the IMM services detailed in Paragraph 1

and 2 above are fulfilled. The Health Department will be responsible for coordinating between OtterTail and Golden for the delivery of IMM services detailed in **Attachment A**. As needed, the Health Department will provide Golden with public education information and periodic reports regarding the status of mosquito-borne diseases and vector control. Questions regarding the Health Department's IMM services shall be addressed to Dr. James Dale, Jefferson County Public Health, 1801 19th Street, Golden, Colorado, 80401; PHONE: 303-271-5718; FAX: 303-271-5702; EMAIL: [jdale@jeffco.us](mailto:jdale@jeffco.us).

4. **PAYMENT OF GOLDEN IMM SERVICE FEE:** The 2010 scope of work for IMM services covers a contract period that runs from June 7, 2010 through September 3, 2010; this period starts later and ends earlier than in previous years. These dates were chosen based on the Health Department's analysis of mosquito populations and activity from the past several years. However, to account for unforeseen events such as unfavorable climatic conditions or mosquito activity, additional bids for conducting IMM services both earlier and later than the contract period were obtained.

(a) Golden agrees to reimburse the Health Department for part of the cost of IMM services benefiting the City of Golden. Golden agrees to pay to the Health Department the amount of \$8,582.00 which is equal to 50 percent of the total Golden IMM service fee of \$17,164.00 for the contract period of June 7, 2010 through September 3, 2010.

(b) Should IMM services be deemed necessary by the Health Department and provided by OtterTail for the period between May 17, 2010 and June 6, 2010, Golden agrees to pay the Health Department up to \$585.50 per week to reimburse the Health Department for 50% of the cost of IMM services provided to Golden during that period. Golden's maximum payment to the Health Department for IMM services provided prior to June 7, 2010 shall not exceed \$1,756.50.

(c) Should IMM services be deemed necessary by the Health Department and provided by OtterTail for the period between September 4, 2010 and September 17, 2010, Golden agrees to pay the Health Department up to \$585.50 per week to reimburse the Health Department for 50% of the cost of the IMM services provided to Golden. Golden's maximum payment to the Health Department for IMM services provided after September 3, 2010 shall not exceed \$1,171.00.

Total payment from Golden for all 2010 IMM services shall not exceed \$11,509.50.

The Health Department shall present two invoices to Golden for 2010 IMM services; one for services performed through July 31, 2010 and one for services performed after August 1, 2010. Payment, with a notation "re: West Nile IGA", shall be sent to Jefferson County Public Health, 1801 19<sup>th</sup> Street, Golden Colorado 80401.

5. **PAYMENT OF UNINCORPORATED JEFFERSON COUNTY IMM SERVICE FEE:** The Health Department will pay for and direct OtterTail to perform the IMM services as set forth in **Attachment A** located within unincorporated Jefferson County.
6. **TERM:** The term of this Intergovernmental Agreement shall be from the date of signature by the last party hereunder to and until December 31, 2010.
7. **LIABILITY INSURANCE COVERAGE/INDEMNITY/WARRANTY:** As described in Paragraphs 11 and 12 of the PURCHASE OF SERVICES AGREEMENT, OtterTail shall maintain liability insurance coverage and will hereby indemnify and hold the Health Department and Golden harmless from all claims, damages, loss, injury, cost and expense, including attorneys' fees resulting from or related to any negligent or intentional acts or omissions of OtterTail, its agents,

employees, subcontractors and consultants, in its performance of the agreement. A copy of OtterTail's Certificate of Liability Insurance is provided as **Attachment B**.

8. **NO GUARANTEE BY THE HEALTH DEPARTMENT:** Golden acknowledges that although the objective of the IMM services to be performed within Golden's boundaries by OtterTail is to reduce the mosquito population and the consequent threat of transmission of West Nile Virus, the Health Department makes no guarantee as to the effectiveness of such IMM services in achieving such objective.
9. **ENTIRE AGREEMENT:** This writing constitutes the entire Intergovernmental Agreement between the parties hereto with respect to the subject matter herein, and shall be binding upon said parties, their officers, employees, agents and assigns and shall inure to the benefit of the respective survivors, heirs, personal representatives, successors and assigns of said parties.
10. **NO WAIVER OF IMMUNITY:** No portion of this Intergovernmental Agreement shall be deemed to constitute a waiver of any immunities the parties or their officers or employees may possess, nor shall any portion of this Intergovernmental Agreement be deemed to have created a duty of care which did not previously exist with respect to any person not a party to this Intergovernmental Agreement.
11. **NO THIRD PARTY BENEFICIARY ENFORCEMENT:** It is expressly understood and agreed that the enforcement of the terms and conditions of this Intergovernmental Agreement, and all rights of action relating to such enforcement, shall be strictly reserved to the undersigned parties and nothing in this Intergovernmental Agreement shall give or allow any claim or right of action whatsoever by any other person not included in this Intergovernmental Agreement. It is the express intention of the undersigned parties that any entity other than the undersigned parties receiving services or benefits under this Intergovernmental Agreement shall be an incidental beneficiary only.

Signed by the parties the \_\_\_\_\_ day of \_\_\_\_\_, 2010.

Jefferson County Public Health

By: \_\_\_\_\_ By: \_\_\_\_\_  
Secretary to the Board of Health President Board of Health

ATTEST: CITY OF GOLDEN, a municipal corporation of the STATE OF COLORADO

By: \_\_\_\_\_ By: \_\_\_\_\_  
City/Town Clerk Mayor

APPROVED AS TO FORM:

By: \_\_\_\_\_  
City Attorney



copy

## PURCHASE OF SERVICES AGREEMENT

This PURCHASE OF SERVICES AGREEMENT ("Agreement") made this 7<sup>th</sup> day of May, 2010, by and between Jefferson County Public Health ("JCPH"), 1801 19<sup>th</sup> Street, Golden, CO 80401 and OtterTail Environmental, Inc. ("Contractor"), whose address is 10200 W. 44<sup>th</sup> Avenue, Suite 210, Wheat Ridge, CO 80033.

**WHEREAS**, the Contractor has been selected to provide mosquito control services; and

**WHEREAS**, JCPH wishes to retain the services of Contractor as an independent contractor and Contractor wishes to provide services to JCPH; and

**WHEREAS**, JCPH has authority to acquire the services described in this Agreement under the provisions of § 25-1-506, *et seq.*, C.R.S., as amended.

**NOW, THEREFORE**, in consideration of the mutual covenants and agreements set forth hereinafter, JCPH and the Contractor agree as follows:

1. SCOPE OF SERVICES

The Contractor shall perform in a satisfactory and proper manner, as determined by JCPH, the services identified in the "Scope of Services, General Description and Specifications", attached to and incorporated in this Agreement by reference as *Exhibit A*.

2. TERM

The term of this Agreement shall be May 1, 2010 through December 31, 2010.

3. COMPENSATION

The amount to be expended pursuant to this Agreement shall not exceed One Hundred Fifty-one Thousand Eight Hundred Ninety Eight dollars (\$151,898.00), which amount shall constitute the contract amount for the Thirteen-week Larval Surveillance and Control Program and the Mosquito Trapping Program (as defined in *Exhibit A*). Such amount may be altered by mutual written consent of parties in the event either Early Season or Late Season Larval Surveillance and Control Programs (as defined in *Exhibit A*, at the price quoted by Contractor in its Bid) are deemed necessary by JCPH.

a. JCPH will reimburse the Contractor on a monthly basis as services are provided, documented, and invoiced by Contractor. Contractor services will be documented in the form proscribed by JCPH and are subject to JCPH approval prior to authorization for payment. The final payment will be made only after the completion of all work by Contractor and acceptance by JCPH of all contract requirements.

b. Contractor shall submit a monthly invoice and supporting required documentation to JCPH by the 5<sup>th</sup> of the following month of service. Failure to submit billing information in a timely manner and correct format shall result in non-payment of invoice.

c. Contractor shall be reimbursed within 14 days after receipt and approval of the invoice.

4. WARRANTY

a. Contractor warrants that all work performed hereunder shall be performed with the highest degree of competence and care in accordance with accepted standards for work of a similar nature and shall be of a quality acceptable to JCPH.

b. Unless otherwise provided herein, all materials and equipment incorporated into any work shall be new and, where not specified, of the most suitable grade of their respective kinds for their intended use and JCPH's mission of protecting public health and the environment.

5. NON APPROPRIATION

The payment of JCPH's obligations hereunder in the fiscal years subsequent to the Agreement period is contingent upon funds for this Agreement being appropriated and budgeted. If funds for this Agreement are not appropriated and budgeted in any year subsequent to the fiscal year of the execution of this Agreement, this Agreement shall terminate. JCPH's fiscal year is the calendar year.

6. RECORDS, REPORTS, and INFORMATION

At such times and in such forms as JCPH may require, Contractor shall furnish statements, records, reports, data and information pertaining to matters covered by this Agreement. The Contractor shall maintain its records in accordance with requirements prescribed by JCPH. Except as otherwise authorized by JCPH, Contractor shall maintain such records for a period of three (3) years after receipt of final payment under this Agreement.

7. AUDITS and INSPECTIONS

At any time during normal business hours and as often as JCPH may deem necessary, Contractor shall make its records with respect to matters covered by this Agreement available for examination. Contractor shall permit JCPH to audit, examine, copy, and make excerpts from such records and audit all contracts, invoices, materials, payrolls, personnel records, conditions of employment, and other data relating to this Agreement. JCPH may call for a certified, independent audit to be performed, at Contractor's expense, by a mutually agreed upon auditor.

8. INDEPENDENT CONTRACTOR

a. The Contractor shall perform its duties hereunder as an independent contractor and not as an employee. Contractor affirms that it has or will secure at its own expense all personnel and materials required to perform the services detailed in *Exhibit A*. Such personnel shall not be employees of nor have any contractual relationship with JCPH.



b. Services required hereunder shall be performed by the Contractor or under its supervision, and all personnel engaged in the work shall be fully qualified and properly licensed or certified, as required by local, state and federal law or regulation to perform such services. Neither Contractor nor its personnel, if any, is entitled to Worker's Compensation Benefits or any other benefit of employment with Jefferson County, Colorado. Further, Contractor is obligated to pay federal and state income tax on any compensation paid pursuant to this Agreement.

c. None of the services to be performed by Contractor under this Agreement shall be subcontracted or otherwise delegated without the prior written consent of the JCPH. The work subcontracted shall be specified in a written agreement between Contractor and its subcontractor(s), which agreement(s) shall be subject to each provision of this Agreement.

9. NON ASSIGNMENT

The Contractor and subcontractor(s) hereto shall not assign or transfer any rights in this Agreement without the prior written consent of the JCPH.

11. OFFICIALS NOT TO BENEFIT

No elected or employed member of JCPH shall directly or indirectly receive or be paid any share or part of this Agreement or any benefit that may arise therefor. Contractor warrants that it has not retained any company or person (other than a bona fide employee working solely for Contractor) to solicit or secure this Agreement, and that Contractor has not paid or agreed to pay to any company or person, (other than a bona fide employee working for Contractor), any fee, commission, percentage, brokerage fee, gift or any other consideration contingent upon or resulting from the award of this Agreement to Contractor. Upon learning of any breach or violation of this provision, JCPH shall have the right to terminate this Agreement with no further liability or obligation for payment.

12. EQUAL EMPLOYMENT OPPORTUNITY

Contractor shall not refuse to hire, discharge, promote, demote or discriminate in matters of compensation against any person otherwise qualified, solely because of race, creed, sex, color, national origin or ancestry, disability or age.

13. ILLEGAL ALIENS – PUBLIC CONTRACTS

a. The Contractor (entity or sole proprietor) shall execute the certification attached hereto as *Exhibit B*, in conformance with the provisions of § 8-17.5-102(1) and § 24-76.5-101, C.R.S., as amended.

b. The Contractor shall not knowingly employ or contract with an illegal alien to perform work under this public contract; or 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.

c. If the Contractor obtains actual knowledge that a subcontractor performing work under this public contract knowingly employs or contracts with an illegal alien, the Contractor shall:

(1) Notify the subcontractor and JCPH within three days that the Contractor has actual knowledge that the subcontractor is employing or contracting with an illegal alien; and

(2) Terminate the subcontract with the subcontractor if within three days of receiving the notice required pursuant to subparagraph (1), above, 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 days the subcontractor provides information to establish that the subcontractor has not knowingly employed or contracted with an illegal alien.

d. The Contractor shall comply with any reasonable request by the Department of Labor and Employment made in the course of an investigation that the Department is undertaking pursuant to its authority.

e. Notwithstanding any other provision of this public contract, if the Contractor violates any provision of this paragraph, JCPH may terminate this public contract and the Contractor shall be liable for all actual and consequential damages resulting from that termination.

f. Except where exempted by federal law and, except as provided in § 24-76.5-103(3), C.R.S., as amended, the Contractor receiving Jefferson County funds under this public contract must confirm that any individual natural person eighteen (18) years of age or older is lawfully present in the United States pursuant to §24-76.5-103(4), C.R.S., as amended, if such individual applies for public benefits provided under this public contract. If the Contractor has verified that the County has accomplished such confirmation prior to the effective date of this public contract, the Contractor is relieved of responsibility under this paragraph.

#### 14. SOLE SOURCE CONTRACTS

If the Contractor has entered into a sole source contract or contracts with the State of Colorado or any of its political subdivisions as defined in Article XXVIII of the Colorado Constitution which including this contract in the aggregate on an annual basis are equal to or exceed the amount of \$100,000, then the following provisions apply:

- a. Because of a presumption of impropriety between contributions to any campaign and sole source government contracts, Contractor shall contractually agree, for the duration of the contract and for two years thereafter, to cease making, causing to be made, or inducing by any means, a contribution, directly or indirectly, on behalf of the Contractor or on behalf of his or her immediate family member and for the benefit of any political party or for the benefit of any candidate for any elected office of the state or any of its political subdivisions.
- b. Contractor further agrees that if it makes or causes to be made any contribution intended to promote or influence the result of an election on a ballot issue, it shall not be qualified to enter into a sole source government contract relating to that particular ballot issue.
- c. If Contractor intentionally violates sections 15 or 17(2) of Article XXVIII of the Colorado Constitution, as contractual damages Contractor shall be ineligible to hold any sole source government contract, or public employment with the state or any of its political subdivisions, for three years.

15. STATUTES, REGULATIONS AND ORDINANCES

Contractor shall observe and comply with federal, state and local laws, regulations, rules or ordinances that affect those employed or engaged by it, the materials or equipment used or the performance of the project and shall procure any and all necessary approvals, licenses and permits all at its own expense.

16. INDEMNIFICATION

The Contractor agrees to indemnify and hold harmless JCPH, and its officers, employees and agents, acting officially or otherwise, from any and all claims, demands, damages, and actions of any kind brought by anyone, including attorney's fees, which may arise out of or result from the negligent or willful misconduct of Contractor or its subcontractor(s) in the performance of services as set forth in this Agreement and/or the breach of any condition(s) of this Agreement. This provision shall survive the termination of this Agreement.

17. INSURANCE

The Contractor providing services under this Contract will be required to procure and maintain, at their own expense and without cost to JCPH, until expiration of the agreement the following insurance. The policy limits required are to be considered minimum amounts:

Commercial General Liability Insurance: Combined single limits of \$1,000,000 per occurrence and \$2,000,000 general aggregate for bodily injury and property damage, which coverage shall include products/completed operations, independent contractor, and contractual liability.

**Worker's Compensation and Employer's Liability and Occupational Disease Coverage in accordance with Colorado law or the law of the state in which the Contractor is a resident or the firm is registered.**

**Comprehensive Automobile Liability Insurance, including coverage for all, owned, non-owned and rented vehicles with \$1,000,000 combined single limit for each occurrence.**

**JCPH shall be named as an additional insured and the insurance policy shall include a provision prohibiting cancellation of said policy except upon thirty (30) days prior written notice to JCPH. Certificates of insurance shall be delivered to JCPH within fifteen (15) days of execution of the Agreement.**

**Contractor shall demonstrate contractual liability coverage supporting the indemnity provisions of this Agreement, either through policy language or by waiver of exclusion.**

**18. DOCUMENT OWNERSHIP - WORKS MADE FOR HIRE**

**All of the deliverable items, if any, prepared for the JCPH under this Agreement shall belong exclusively to JCPH and shall be deemed to be "works made for hire" under the copyright laws of the United States. To the extent any of the deliverable items may not, by operation of law or otherwise, be works made for hire, the Contractor hereby assigns to JCPH the ownership of the copyright in the deliverable items, and JCPH shall have the right to obtain and hold in its own name, copyrights, registrations, and similar protections. The Contractor agrees to give JCPH or its designee all assistance reasonably required to perfect such rights. To the extent that any pre-existing materials are contained in the deliverable items, the Contractor grants to JCPH an irrevocable, non-exclusive, worldwide, royalty-free license to use, execute, publish, reproduce, display, perform, distribute copies of, and prepare derivative works based upon such pre-existing materials and derivative works thereof and to authorize others to do any, some, or all of the foregoing.**

**19. TERMINATION FOR CAUSE**

**If the Contractor or JCPH fails to fulfill its obligations under this Agreement in a timely and proper manner or violates any of the provisions of this Agreement, the non-defaulting party shall thereupon have the right to terminate this Agreement for cause by giving written notice to the defaulting party of such termination and specifying the effective date of termination. The defaulting party, however, shall not be relieved of liability to the non-defaulting party for damages sustained by virtue of any breach of this Agreement. In the event of default by the Contractor, JCPH may withhold payments due under Paragraph 3, above, for the purpose of set-off until such time as the exact amount of damages due JCPH from the Contractor is determined.**

**20. MODIFICATIONS**

**This Agreement may not be modified, amended or otherwise altered, unless mutually agreed upon in a writing executed by JCPH and the Contractor.**

21. GOVERNING LAW

The laws of the State of Colorado shall govern the validity, performance, and enforcement of this Agreement. Should either JCPH or Contractor institute legal action for enforcement of any obligation contained herein, it is agreed that venue shall be in Jefferson County, Colorado.

22. SEVERABILITY

If any provision of this Agreement or the application thereof to any person or in any circumstance shall be unenforceable to any extent, the remainder of this Agreement and the application of such provision to other persons or in other circumstances shall not be effected thereby and shall be enforced to the greatest extent permitted by law.

23. NOTICES

Notices to be provided under this Agreement shall be given in writing either by hand delivery or by certified return receipt requested United States mail, to the following:

JCPH Representative:

JCPH  
Elizabeth Lipscomb  
1801 19<sup>th</sup> Street  
Golden, CO 80401

Contractor:

OtterTail Environmental  
Ed Fleming  
10200 W 44<sup>th</sup> Ave, Ste 210  
Wheat Ridge, CO 80033

24. HEADINGS

Titles and paragraph divisions are inserted in this Agreement for ease of reference and do not define, limit, or prescribe the scope or intent of the provisions of this Agreement or any part thereof.

25. AUTHORITY

Each person signing this Agreement represents and warrants that he/she is fully authorized to enter into and execute this Agreement and to bind the party represented to the provisions of this Agreement.

26. COUNTERPARTS and FACSIMILE SIGNATURES

This Agreement may be executed in counterparts, each of which shall be deemed an original. Facsimile signatures of, or on behalf of, JCPH or the Contractor on this Agreement and any modification hereto shall be effective for all purposes.

27. FORCE MAJEURE

Neither party shall be liable for its failure to perform hereunder due to contingencies beyond its reasonable control, including but not limited to strikes, riots, war, and acts of God.

28. INTEGRATION OF UNDERSTANDING

This Agreement represents the entire Agreement between the parties and supersedes all prior negotiations and representations, whether written or oral. Nothing herein shall be deemed to give anyone not a party to this Agreement any right of action against either JCPH or the Contractor.

IN WITNESS WHEREOF, JCPH and the Contractor have duly executed this Agreement as of 4/20/10 to be effective as of the date first shown above.

Jefferson County Public Health

OtterTail Environmental:

By: Cathy Corcoran  
Cathy Corcoran, President  
Board of Health

By: Ed Fleming  
Ed Fleming  
Printed Name  
President  
Title

ATTEST: Bonnie McNulty  
By: Bonnie McNulty, Secretary  
Board of Health

**Exhibit A**  
**JEFFERSON COUNTY PUBLIC HEALTH**  
**2010 INTEGRATED MOSQUITO MANAGEMENT SERVICES**  
**SCOPE OF WORK**

**GENERAL DESCRIPTION AND SPECIFICATIONS**

**GENERAL DESCRIPTION**

The service provider shall conduct an Integrated Mosquito Management (IMM) Program for Jefferson County Public Health (JCPH) during the spring and summer of 2010. This program will be designed and implemented to control the spread of the West Nile Virus (WNV) and other mosquito-borne diseases such as St. Louis Encephalitis (SLE) and Western Equine Encephalitis (WEE) by reducing the number of disease causing mosquitoes.

The service provider shall employ established IMM principles and practices to reduce the numbers of all mosquitoes including disease causing mosquitoes in Jefferson County. These principles and practices include: the trapping of adult mosquitoes for count, identification and classification, conducting larval mosquito surveillance and control (LS&C) via larvae breeding habitat surveillance, larval mosquito speciation, larval mosquito control (through the application of larvicides, source reduction, and/or biologic controls), and public education and outreach. Adulticiding - the killing of adult mosquitoes through aerial sprays and fogging - is not anticipated but the service provider shall maintain the capabilities to implement, manage, and / or provide properly trained and licensed staff and supervisors to conduct adulticiding if requested by JCPH to do so.

The service provider shall provide the following IMM services within the service area:

- A. Adult Mosquito Surveillance
- B. Larval Mosquito Surveillance and Control
- C. Public Education
- D. Reporting
- E. Record Keeping
- F. Department Employee Training
- G. Board of Health Appearances
- H. Adult Mosquito Control Service

The service provider shall follow all applicable and appropriate Federal, State, and Local rules and regulations such as EPA, OSHA, FIFRA pertaining to the implementation of the IMM services provided by the service provider in this Scope of Work.

Specific requirements pertaining to the service area, the services to be provided, term of the contract, and the work products are described in the Specifications section of this Scope of Work.

**SPECIFICATIONS**

**I. SERVICE AREA**

The service area of Jefferson County area consists of approximately 464 133.4 square miles of bedroom community located on the east side of the Rocky Mountains. The service area is bounded by Broomfield County on the north, Chatfield State Park on the south, the foothills on the west (elevation ~5,900 feet), and Sheridan Boulevard on the east (elevation ~5,300 feet). Because the service area is on the eastern slope of the foothills most of the precipitation occurring during the WNV IMM season runs through the service area via a series of drainage creeks and eventually into the South Platte River. There are not any large irrigated agricultural operations or large areas of swamp land in the service area. Approximately 70% of the potential larval development (PLD) sites in Jefferson County are less than 2 acres.

**Exhibit A**  
**JEFFERSON COUNTY PUBLIC HEALTH**  
**2010 INTEGRATED MOSQUITO MANAGEMENT SERVICES**  
**SCOPE OF WORK**

The 2010 Integrated Mosquito Management Service Area Map (**Attachment A**) illustrates the service area and the known potential larval development sites.

A summary of the service area is provided in the table below.

<u>Area / Municipality</u>	<u>Square Miles</u>
Arvada	<del>27.6</del>
Golden	8.3
Lakewood	41.8
Wheat Ridge	9.6
Unincorporated Jefferson County*	73.7
Total Square Miles:	<del>164.0</del> 133.4

\* Includes Bow Mar (0.1), Edgewater (0.7), Lakeside (0.3), Littleton (0.6), Morrison (0.7), Mountain View (0.1).

**II. SERVICES TO BE PROVIDED**

**A. Adult Mosquito Surveillance**

**1. General Requirements For Mosquito Trapping and Surveillance**

- a) If any mosquito trap night is cancelled, the service provider shall notify JCPH immediately. JCPH may require the service provider to reschedule the cancelled trap night. Service provider will not be reimbursed for cancelled trap nights.
- b) After each trap night the service provider shall collect, identify, speciate, and count all trapped mosquitoes by methods recognized by CDC and/or the Colorado Department of Public Health and Environment (CDPHE) and report this information to JCPH at least once per week.
- c) All mosquito trapping activities including the submission of mosquito pool specimens shall be conducted in accordance with the protocols established in the current CDPHE Mosquito Surveillance Plan (**Attachment B**) and the West Nile Virus Mosquito Sentinel Site Guidelines (**Attachment C**). The CDPHE Mosquito Surveillance Plan is dated 2005 and the 2010 Sentinel Site Guidelines protocol is in draft form, any updates to these two attachments will be provided once they become available.
- d) The service provider shall assume all liability for the placement and operation of any and all equipment. JCPH shall not be responsible for any lost, damaged or stolen traps and/or equipment.
- e) The service provider shall maintain a toll-free (in Colorado) **Mosquito Complaint Call Center** and shall accept calls from the public reporting mosquito problems and/or standing, stagnant water in the service area that may indicate the presence of potential larval development (PLD) sites. The service provider shall maintain a log of calls received and shall summarize call and service provider response activity in weekly and annual reports.



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**2. State Mosquito Sentinel Program**

- a) The service provider shall provide all supplies, equipment and personnel to operate and maintain the Mosquito Sentinel Program for **80 trap nights** at various sites selected with the concurrence of JCPH as follows:
- (i) Five (5) CDC light traps within the service area. These traps shall be operated one night per week on the same day of the week for a period of 11 weeks from June 14, 2010 to August 27, 2010 for a total of 55 trap nights. These trap sites are part of the State wide surveillance system and shall be operated according to the procedures outlined in **Attachment C**.
  - (ii) The five (5) trap locations identified in a) above, shall have a second trap night each week from July 6, 2010 through August 3, 2010 (5 weeks) for a total of 25 trap nights as part of the Mosquito Sentinel Program in accordance with state guidelines. The state mosquito sentinel program is funded by the CDPHE and the attached guidance represents a draft for 2010; the number of trap nights may decrease or increase depending on state funds available and the extent of Arbovirus activity in Colorado.

**3. JCPH Adult Mosquito Surveillance Program**

- a) The service provider shall provide all supplies, equipment and personnel to operate and maintain for up to **144 trap nights**:
- (i) Six (6) CDC light traps at various sites within the service area. These traps shall be operated one night per week on the same day of the week for a period of 12 weeks from June 7, 2010 to August 27, 2010.
  - (ii) Six (6) gravid traps collected with the 6-CDC light traps (in paragraph a) above. These traps shall be operated one night per week on the same day of the week for a period of 12 weeks from June 7, 2010 to August 27, 2010.

**B. Larval Mosquito Surveillance and Control**

**1. General Requirements For Larval Surveillance and Control (LS&C)**

- a) The primary and priority focus of larval control will be to eliminate the mosquitoes that have the potential to transmit diseases such as WNV, SLE, and WEE.
- b) Unless otherwise indicated, the LS&C activities will take place for 13 weeks between June 7, 2010 and September 3, 2010. Environmental conditions, such as weather, may indicate the need to expand LS&C activities before and/or after this time period.
- c) During the 2010 season all sites inspected by the service provider during LS&C activities that are found to be breeding mosquito larvae shall be treated with a larvicide by the service provider.
- d) Each site will be inspected and classified according to the following classifications:
  - Vector mosquito breeding sites,
  - Vector and non-vector mosquito breeding sites
  - Non-vector mosquito breeding sites.
- e) All mosquito complaints shall be thoroughly investigated by the service provider and larval control shall be implemented by the service provider based a balanced evaluation of the risk of human illness, suffering, and impact on quality of life in the community associated with the concurrent mosquito infestation.

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- f) Commensurate with the start of the LS&C program the service provider shall conduct a preliminary assessment of all known PLD sites within the service area. At the end of the 2009 IMM season there were approximately 668 known PLD sites contained in the 161 square mile service area. The 2010 IMM service area and known PLD sites are identified on the Jefferson County Integrated Mosquito Management Service Area Map (Attachment A). The purpose of the preliminary assessment is to determine the status of each PLD site and to classify each PLD site as "targeted" or "non-breeding". Targeted PLD sites are those sites which have the highest potential for mosquito breeding. The remaining sites shall be classified as non-breeding PLD sites or removed from the list of PLD sites if the site no longer has the potential to breed mosquitoes. Any new PLD sites identified during the initial inspection and preliminary assessment of PLD sites shall be added to the list of PLD sites and shall be classified as "targeted" or "non-breeding".
  - g) Based on the 2009 end-of season PLD inventory and newly identified PLD sites in 2010, the service provider shall provide an updated PLD list and map on or before June 30, 2010. The list shall include the service provider's recommendations for additions, deletions, and/or revisions to the list of PLD sites
  - h) The contractor will continue to identify and investigate new PLD sites throughout the season and add and label any new sites on the Service Map.
2. **Routine Larval Surveillance and Control Activities**
- a) Inspect all "targeted" PLD sites at least once per week by visual observation and by dipping any standing water for mosquito larvae.
  - b) Larvae found at each PLD site shall be speciated and labeled as one of the following; vector, vector and non-vector species or non-vector species.
  - c) Inspect all "non-breeding" PLD sites at least once per month to determine if any changes have occurred that would warrant a re-evaluation of their status. Additional inspections over and above the routine monthly inspection of non-breeding PLD sites may be necessary based on changes in climatic conditions.
  - d) Inspect strategically located storm water structures (catch basins, detention ponds, storm water inlet boxes, and the like) found to contain water at least once per week for the presence of mosquito larvae. Storm water structures shall be inspected based on environmental conditions, such as periods of precipitation followed by warm temperatures that promote the development of mosquito larva at such structures. Storm water structures shall be labeled as sites and inspections shall be included in the weekly totals and year to date totals in the weekly reports.
  - e) Identify any additional and/or new PLD sites by documenting any areas of clogged ditches and streams, standing water, etc., that were observed during the course of conducting IMM activities. Inspect and classify each additional and/or new PLD site as a targeted or non-breeding site. All additional and/or new PLD sites shall be mapped and recorded, regardless of their classification. Document areas such as abandoned swimming pools, clogged drains, dammed streams, and the like, which have the potential for supporting larval development, report these features to JCPH, and work with local code enforcement officials to locate, identify, and apply the appropriate IMM measures to these sites as needed.

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- f) Apply the appropriate, federally approved larval control materials, if it is determined that any PLD site is producing mosquitoes and/or mosquito larvae. This is especially important if it is determined that Culex sp. or other potential arboviral vector mosquitoes are also present.
- g) Larval control may include the application of larvicide and/or the utilization of other recognized methods of larval control such as source reduction.
- h) Use the most appropriate method for larvicide distribution, such as hand application, backpack broadcasters, All Terrain Vehicle (ATV), etc.
- i) Maintain Material Safety Data (MSD) sheets for all products used and provide such information upon request to employees, the public, and/or JCPH.
- j) Conduct post-treatment quality control inspections within 24 to 48 hours as necessary to assure the larvae population has been controlled. JCPH recommends a post-treatment quality control inspection goal of at least 10% and no more than 20% of the sites treated during routine inspections. If larvae are found during the post-treatment quality control inspection, a second application of control material shall be applied. These activities shall be included in the weekly activity reports.
- k) Develop a method to contact private property land owners and obtain permission to enter property to conduct IMM activities. Entry onto private property shall be by prior authorization of the owner/agent.
- l) Maintain real-time documentation of all PLD site surveillance and larval control activity and enter real-time data into a JCPH approved electronic database. An electronic copy of the database with classifications shall be provided to JCPH on or before October 15, 2010 and/or upon the request of JCPH.

**C. Public Education**

- 1. The service provider shall maintain a public education website providing general information on WNV and WEE, including basic disease information, tips for personal protection, information for homeowners on standing water, aerial spraying information (if appropriate), phone numbers to call, links to other websites, etc.
- 2. In the event that adulticiding or aerial spraying is to be performed, the service provider shall notify all residents in the area to be sprayed who are registered in the State of Colorado Pesticide Sensitive Registry. A minimum of 3 attempts shall be made to reach these persons prior to the spraying or application. The Ultra Low Volume (ULV) insecticide application will be shut off in front of and upwind from sensitive resident's properties. The service provider shall maintain MSD sheets for all products used and shall provide such information upon request to employees, the public, and/or JCPH. The service provider shall provide qualified and licensed staff if adulticide is required. If adulticide spraying is required the service provider shall collaborate with JCPH to coordinate the delivery of these services.

**D. Record Keeping**

The service provider shall maintain all records and documents pertaining to the services provided under this contract for a period of 3-years. By December 1, 2010 and/or upon the request of JCPH, the service provider shall provide JCPH with copies of any and all records and documents pertaining to the services provided under this contract in an electronic and/or

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hard copy format approved by JCPH. Prior to the disposal of any JCPH records the service provider has in it's possession, the service provider shall provide JCPH with a thirty (30) day written notice during which time JCPH may take physical possession of same at the storage site.

**E. Reporting**

1. **Weekly Report:** The service provider shall provide a weekly summary report of IMM service activities. Weekly reports shall include but not limited to:
  - a) The number of PLD site inspections and post-treatment quality control inspections performed and the number these inspections for each municipality and the unincorporated areas of the County.
  - b) The number of vector breeding sites, number of non-vector breeding sites, the number of sites that contain both vector and non-vector larvae and sites not breeding mosquitoes.
  - c) The number of larvicide applications, including products used, amount of larvicide, size of area treated, and application methods.
  - d) The number of mosquitoes caught in each light and gravid trap, including the number of the various Culex or other arboviral vector species.
  - e) The number of inspectors used and the total amount of direct labor hours spent during each week conducting contract work, reported as larval inspection time, mosquito trapping time, and office or support time.
  - f) The number of complaints received, number of areas inspected because of those complaints, the findings of each inspection and actions taken.
2. **Annual Report:** By October 1, 2010 the service provider shall provide a draft of the annual report. By November 1, 2010 the service provider shall provide the final annual report. The annual report shall be provided in a format acceptable to JCPH both electronically and in hard copy (5 copies) and shall include but not limited to:
  - a) All surveillance activities and findings as defined above,
  - b) Total direct labor hours logged by the service provider and its employees broken into the areas defined above,
  - c) Total number of PLD sites inspected, the size of each PLD site in acres, total number of sites treated, total number of mosquito trap nights, etc.
  - d) The end of season map that illustrates the PLD sites identified and inspected during the contract season,
  - e) The GIS shape files or other electronic files used to create the PLD site map,
  - f) A complete list of all PLD sites and their classification and size of each PLD site in acres. The PLD list shall include the service provider's recommendations for additions, deletions, and/or revisions to the list of PLD sites, and
  - g) The number of vector, non-vector, and combination of vector and non vector sites, and non breeding sites inspected during the season.

- F. Department Employee Training:** Upon request the service provider shall provide training for Department employees.

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- G. Board of Health Appearances:** Upon request the service provider shall appear before the Jefferson County Board of Health to provide updates and/or a year-end report on contract activities.
- H. Adult Mosquito Control Service:** In the event of a Public Health Emergency, the service provider shall assist JCPH in the timely development and implementation of an adult mosquito control program, such as ground and/or aerial adulticide spraying. The adult mosquito control program shall be conducted in accordance with all state and federal requirements. The costs of this service and/or the adult mosquito control program are not included in this contract.

**III. TERM OF SERVICE AGREEMENT**

The Service Agreement shall be in effect for the period beginning May 17, 2010 through December 31, 2010. Unless otherwise indicated and directed by JCPH to do so, all field service activities shall commence no later than June 7, 2010 and shall continue until JCPH determines that a specific field service is no longer needed, but no later than September 3, 2010. **Environmental conditions, such as weather, may indicate the need to expand LS&C activities before and/or after this time period.**

**IV. WORK PRODUCTS**

Any and all maps, reports, spreadsheets, databases, geographical information system (GIS) files, newsletters and other hard copy or electronic documents generated by the service provider in fulfillment of its obligations under this contract shall be the property of JCPH, who shall have sole and complete discretion regarding their use and distribution. All work products shall be delivered to JCPH in a mutually agreed upon hardcopy and/or electronic format suitable for including in reports and folders. The data and weekly reports will be furnished in standard 8 ½ by 11 inch paper. All reports will include the activity undertaken in each of the cities in the County. **All final deliverable electronic and/or hard copy records, documents, and maps pertaining to 2010 IMM services under this contract shall be delivered by November 15, 2010.**

**WORK PRODUCT DELIVERY SCHEDULE**

<b>Work Product</b>	<b>Delivery Date</b>
Begin Early Season Larval Surveillance and Control May 17 to June 4, 2010	Per JCPH direction
Begin Regular Season Larval Surveillance and Control	June 7, 2010
Begin Adult Mosquito Surveillance	June 7, 2010
First Weekly Report	10 calendar days after field work begins
Report findings of Preliminary Assessment of Known PLD Sites	June 30, 2010
End Adult Mosquito Surveillance	August 27, 2010
End Larval Surveillance and Control	September 3, 2010
Begin Late Season Larval Surveillance and Control September 7 to September 17, 2010	Per JCPH direction

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Last Weekly Report	10 calendar days after field work ends
First draft Annual Report	October 1, 2010
Final Annual Report	November 1, 2010

**ACRONYMS**

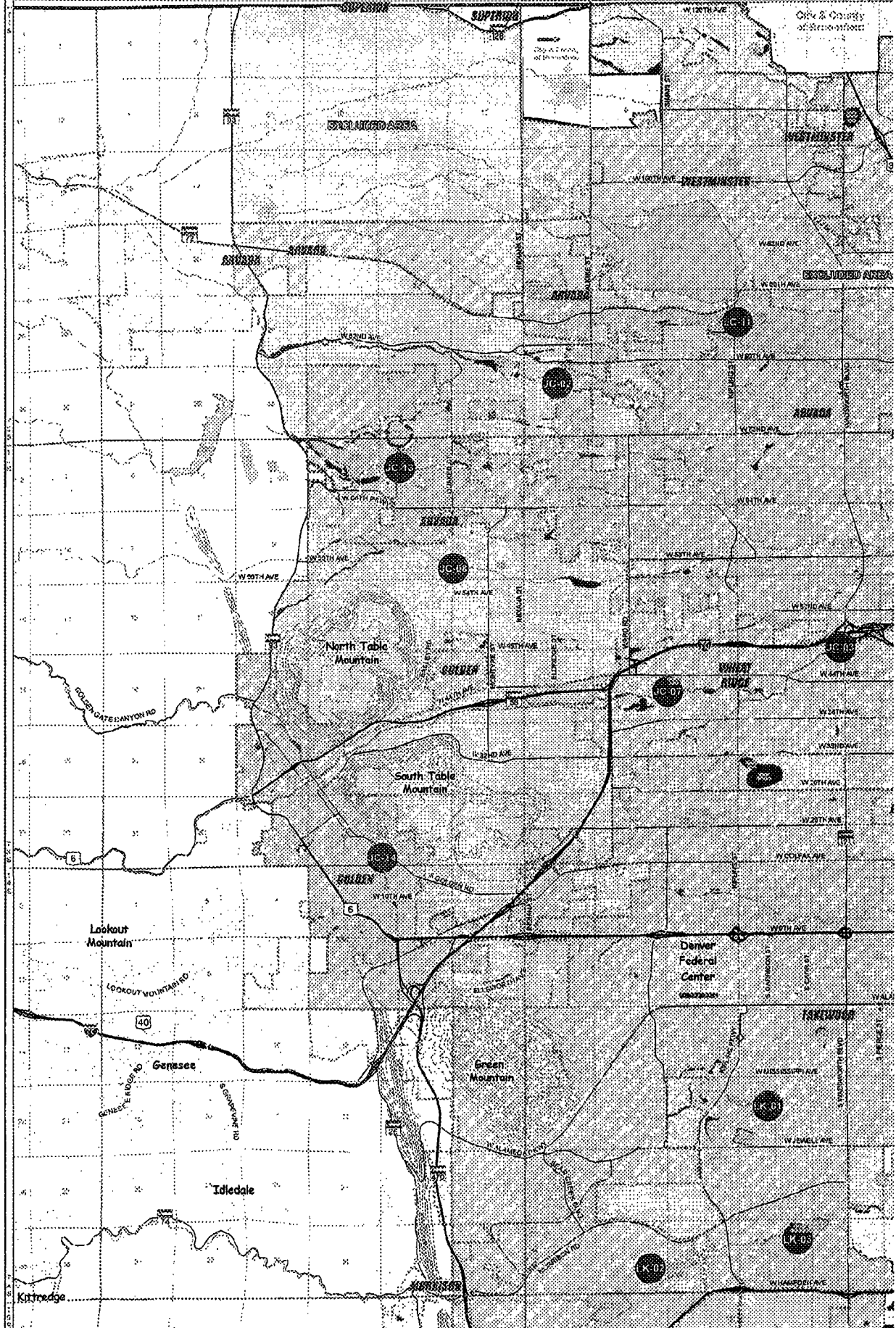
**Acronym    Definition**

CDC	Centers for Disease Control and Prevention
CDPHE	Colorado Department of Public Health and Environment and its employees
GIS	Geographical Information Systems
IMM	Integrated Mosquito Management
JCPH	Jefferson County Public Health and its employees
LS&C	Larval Mosquito Surveillance and Control
MSD	Material Safety Data
PLD	Potential Larval Development
WEE	Western Equine Encephalitis
WNV	West Nile Virus

**ATTACHMENTS**

- A: Jefferson County 2010 IMM Service Contract Area Map
- B: CDPHE Mosquito Surveillance Plan (most current version)
- C: CDPHE WNV Mosquito Sentinel Guidelines (most current version)

# 2010 Integrated Mosquito Management Service Area







## Attachment B



Colorado Department  
of Public Health  
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# 2005 Mosquito Surveillance Plan

3/23/05

## A. Introduction:

Mosquito trapping and testing data provide both qualitative and quantitative information on arbovirus activity and potential human risk in an area. Advances in testing mosquito pools and calculation of minimum infection rates allow an integrated system based on mosquito surveillance to comprise a large part of the arbovirus surveillance strategy. Testing will focus on *Culex* species of mosquitoes, as these are the primary human vectors.

## B. Plan Description:

Mosquito testing this season will remain essentially unchanged from 2004. It will again have a three-tiered approach utilizing, once again, *sentinel*, *floater*, and *permanent* mosquito trap sites. *Sentinel* sites (see attached *Mosquito Sentinel Site Guidelines*) will act as a longitudinal system to replace chicken flocks, provide population data based on a consistent trapping protocol, and allow testing for the three arboviruses present in Colorado (Western equine, St Louis, and West Nile). *Permanent* traps are the long-term mosquito trap sites that local surveillance / control operations maintain at their own discretion, above and beyond the sentinel sites agreed to by CDPHE. *Floater* traps are those that are deployed based on current surveillance data such as positive birds and horses or human cases to provide local risk assessment, and to support local control and prevention decisions.

### Sentinel Traps

Unlike sentinel chicken flocks, whose sole purpose as a surveillance tool was to detect the presence of mosquito borne viruses, mosquito sentinel sites will also provide temporal mosquito population data, species make-up, and infection rate data. In addition, the long-term baseline data that will be collected, using a standardized trapping and testing protocol, can be used to accurately compare year-to-year changes in mosquito populations. It is hoped that this approach can be sustained and provide a long-term surveillance system for arbovirus activity into the future.

Mosquitoes will be collected at the sentinel sites weekly and all pools of *Culex* species will be tested for WNV using RT-PCR. A sample of submitted pools will also be tested for Western Equine Encephalitis (WEE) and St. Louis Encephalitis (SLE) viruses. This will permit accurate mosquito infection rates to be calculated. The number of sentinel mosquito trap sites will increase slightly (21 sites) from last season (15 sites) to upgrade the level of coverage across the state. As was the case last season, the selection of *sentinel* sites will

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be determined by geographic location and the willingness of the local health agency, MAD, etc. to assume the responsibilities of maintaining a site during this and subsequent years.

### **Floater Mosquito Traps**

“Floater” mosquito trap testing will integrate the qualitative virus data collected from dead birds, horse and human cases with the quantitative data mosquito trapping can provide. Local agencies will decide the need for trapping in their area, which should be driven by positive virus findings using other surveillance tools (positive dead birds or horses). These trap site locations are expected to change from year to year based on local surveillance needs.

### **Permanent Mosquito Traps**

The third category of mosquito trapping includes *permanent* mosquito trap sites that local organizations and agencies operate and maintain, usually to monitor nuisance mosquito populations. The testing of Culex pools collected from these traps depends largely upon the conditions that exist at that site. Sampling and testing criteria will be discussed below (see C. 3. c. *Mosquito testing criteria*).

### **Surveillance Dates to Remember**

Dead bird and mosquito surveillance activities will commence **May 1<sup>st</sup>**. Initial testing will focus on dead birds as they will be a more sensitive indicator of virus activity early in the season when mosquito populations and infection rates are low. Once virus is detected in an area, mosquito testing should be used to assess the level of risk for human transmission. Dead bird testing should be limited to no more than two or three WNV+ birds from the same area (i.e., approx. 5 mi<sup>2</sup> area or 1.25 mi. radius). Further bird testing does not provide additional information and expends limited lab resources. **Unlike last season however, corvid bird specimens meeting sampling criteria will be accepted beyond the July 1<sup>st</sup> deadline date for bird testing if no other WNV + birds or other surveillance tool indicates virus activity in that area.**

All Culex spp. mosquito pools from **sentinel** trap sites will be tested using RT-PCR at the CDPHE/LSD lab in Denver. However, mosquito pools from **sentinel** traps in Moffat, Mesa, and Delta counties will be sent to and tested at the regional laboratory in Grand Junction.

**Prior to July 1<sup>st</sup>**, Culex mosquito pools from *floater and permanent* traps should be tested at the CDPHE Laboratory Services Division (LSD) using RT-PCR because of its greater sensitivity.

**Zone Trapping:** During this early trapping period (May 1<sup>st</sup> to July 1<sup>st</sup>), in an effort to stretch diagnostic resources, surveillance participants are strongly encouraged to “zone” trap their **floater and permanent** trap captures. That is, co-mingle, by species, Culex mosquito captures from several floater or permanent traps in a general geographic area to increase the size of pools being tested. Because early season Culex numbers are not expected to be very high until later in the season, pooling captures from several traps will reduce the number of small mosquito pools that use the same test as would a pool of 50

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mosquitoes. If a positive, co-mingled pool is detected, subsequent collections specific to a trap may be submitted in order to determine which trap the positive pool came from.

**After July 1<sup>st</sup>**, when expanding *Culex* mosquito populations and increasing infection rates should offset the lower sensitivity of VecTest®, mosquitoes from these floater and permanent traps will be tested by VecTest® at the six regional laboratories. If WEE or SLE activity is observed, regional labs will be provided with multi-antigen VecTest® kits valid for all three viruses.

Participants in the surveillance program are encouraged to use limited mosquito testing resources responsibly. At this time there will be no testing quota assigned to each county. Depending on the intensity of virus activity that is detected, the risk of human exposure, planned control efforts, etc., diagnostic resources may be diverted to where they are needed most. Regional epidemiologists and CDPHE will be monitoring diagnostic resource usage, suggesting where testing is needed and curtailing usage when it's appropriate based on virus activity and the resources that are available for that region or county.

### C. Plan Criteria:

#### 1. Sentinel Mosquito Trap Sites:

##### a. Obligations:

- 1) Trapping Schedule: weekly from early May through September. In 2005, it is recommended that a trapping frequency of one night per week be observed, adding additional nights if needed due to inclement weather.
- 2) Each site will consist of 2 CDC CO<sub>2</sub> baited, light traps and one gravid trap.
- 3) Traps shall be properly maintained and baited appropriately (i.e., dry ice for light traps and straw-manure infusion for gravid traps). See "Mosquito Trapping and Handling Protocol" dated 4/29/04.
- 4) Accurate records maintained (date, # trap nights, # mosquitoes by species, *Culex* population density, weather conditions, etc.)
- 5) **Weekly** submission of *Culex* mosquito pools and data to LSD in Denver or if the pools are from Mesa, Delta, and Moffat counties, pools should be sent to the regional lab in Grand Junction.
- 6) Calculation of Infection Rates

##### b. Site considerations:

- 1) Care should be used in selecting a sentinel trap site so they do not have to be moved to insure continuity of data. Site should be stable and easily accessible.
- 2) Site has a history of significant *Culex* mosquito activity and close proximity to appropriate *Culex* breeding habitat
- 3) Close proximity to human populations
- 4) Availability of resting sites and protection from wind (e.g., culverts, fences, shrubbery, trees, sheds, etc.)
- 5) Away from competing sources of light (light traps) or oviposition sites (gravid traps).
- 6) Avoid areas where heavy, regular adult mosquito and/or insect control are performed.
- 7) History of past arbovirus activity.  
Note: "Sentinel" trap sites should remain at the same site each season; however, traps can be moved within a general area (< 0.5 mile) of similar habitat in order

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to improve trap performance and are not required to hang from the same tree week after week.

- c. Mosquito pooling suggestions:
  - 1) Sorted *Culex* mosquitoes of the same species from the two light traps can be co-mingled into common pools.
  - 2) Sorted mosquitoes from the gravid traps **cannot** be co-mingled with the same species from light traps. They must remain segregated in separate pools.  
Note: to calculate mosquito population density, take the total number of captured mosquitoes, by species, and divide by the number of trap nights.

### 2. Floater Mosquito Traps

- a. Location preferences: same as above, except that a confirmed, infected dead bird, horse, and/or human case has been reported in the area.
- b. Deployment considerations:
  - 1) Surveillance data will be used to support mosquito control activities .
  - 2) Trap(s) deployed for a minimum of two (2) weeks.
  - 3) Trap(s) operated a minimum of one night per week, adjusted to allow for inclement weather.
  - 4) Traps properly maintained and baited appropriately.
  - 5) Mosquito captures sorted and pooled. *Culex* species submitted to the appropriate regional lab or LSD lab for testing.
- c. Obligations:
  - 1) Trap data (e.g., trap nights, species, #'s, dates, *Culex* population density, weather conditions, etc.) maintained.
  - 2) Calculation of Infection Rates
  - 3) “*Zone Trapping*” see above.

### 3. Permanent Mosquito Traps

- a. Location preferences: same as those described for *sentinel* and *floater* traps.
- b. Deployment considerations: the selected location has a history of trapping at that site.
- c. Mosquito testing criteria:
  - 1) Many permanent traps have an established history and have collected an abundance of mosquito data over the years, but often have been deployed as a result of nuisance mosquito monitoring as opposed to arbovirus activity in which case, nuisance mosquito species will not be tested at this time
  - 2) *Culex* mosquitoes from permanent traps should be tested if the site is within 1.25 mi. of a WNV+ bird, horse or human case, a sustained increase in the *Culex* mosquito population is noted, and/or the site provides the only arbovirus surveillance data for that area.
- c. Obligations:
  - 1) Trap data (e.g., trap nights, spp. #'s, dates, *Culex* population density, weather conditions, etc.) maintained.
  - 2) Calculation of Infection Rates
  - 3) “*Zone Trapping*” see above.



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## ATTACHMENT C

# West Nile Virus Mosquito Testing 2010 SENTINEL ZONE PROTOCOL

### **Sentinel Zone Concept**

The goal of surveillance for mosquito-borne viruses (WNV, SLE, WEE) is to determine the human transmission risk in order to implement control and prevention strategies. To facilitate a standardized method of data collection and insure continued operation during budget reductions, the mosquito sentinel site concept was launched in 2004. However, there were concerns that a single site poorly represented the region's mosquito populations and was vulnerable to environmental changes that could reduce its effectiveness.

To address these issues, the program was modified into a "Sentinel Zone" approach. Within a defined "sentinel zone" mosquito traps are set in strategic locations to ensure successful trapping of adequate numbers of mosquitoes throughout the WNV season. In the event your combined trapped mosquito collection numbers for the week are low, it is recommended that they are saved and combined with the following trap night within the same trap week. If one trap or site becomes inoperable, mosquitoes from other traps in the zone can still be tested and the poor trap site can be relocated to another location within the zone.

Following standardized trapping and testing protocols, a sentinel zone would provide data about mosquito population density, species make-up and arboviral activity that is comparable over the years. Furthermore, this approach will provide sufficient mosquito testing volume for calculating accurate infections rates to allow control decisions to be made (i.e. to spray or not to spray) in time to have a public health benefit. All *Culex* species mosquitoes collected in the sentinel zones will be tested for WNV by RT-PCR and a sample of the submitted pools will also be tested for Western equine encephalitis (WEE) and St. Louis encephalitis (SLE).

### **Scope of Work**

- 1) **Defining a zone:** Local agencies can determine where a zone will be located and what geographic area it will encompass within the following parameters:
  - ✧ A zone will be a circle with a minimum radius of 1.5 miles and a maximum radius of 5 miles
  - ✧ The center point of the circle will be used as the geo reference point for the zone (latitude/longitude).
  
- 2) **Trap placement:** Each zone will consist of five CO<sub>2</sub> baited light traps. Local agencies can determine where within the zone these traps are located.
  - ✧ Gravid traps or additional light traps can be maintained in the zone, however mosquitoes from other traps cannot be combined with the five zone traps for either testing or calculation of infection rates.
  - ✧ The same location for each trap must be used throughout a season. However, when necessary a non-producing trap can be moved to another location within the zone although this should be minimized and occur early in the season.



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- 3) **Trapping schedule:** To better reflect the WNV transmission season in Colorado AND ensure the majority of samples ( $\geq 60\%$ ) are tested during the peak of the transmission season the following schedule will be used. This schedule will result in ~ 60 to 90 trap/nights per zone for the season. Agencies can decide which night of the week to use although the same day should be used each week when possible.
- ◇ Weeks of June 14<sup>th</sup> through July 2<sup>nd</sup>, 2010 – trap one night per week
  - ◇ Weeks of July 5<sup>th</sup> through August 6<sup>th</sup>, 2010 –
    - for jurisdictions with mosquito control programs where decisions on adulticiding are made based on trapping **& testing results**- trap two nights per week
    - for jurisdictions without mosquito control programs- trap one night per week
  - ◇ Weeks of August 9<sup>th</sup> through August 31<sup>st</sup>, 2010 – trap one night per week
  - ◇ Agencies can trap mosquito samples/pools prior to June 14<sup>th</sup> or after August 31<sup>st</sup> (for identification, internal RAMP), but if these mosquitoes are submitted to CDPHE Laboratory, the submitting agency will be billed.
- 4) **Mosquito Submission:** The 5 traps within the sentinel zone could be viewed as one large mosquito trap from which the pooled infection rate and vector index will be calculated.
- ◇ All female *Culex* mosquitoes trapped in a sentinel zone must be submitted to the state lab.
  - ◇ Submit mosquitoes in separate pools by *C. tarsalis* and other *Culex* (i.e. *C. pipiens*, *C. erythrothorax*, *C. resturans* combined).
  - ◇ **Pool size can be up to 65 mosquitoes per vial.**
    - **CRITICAL** -- the exact number of mosquitoes per vial must be recorded as this affects the infection rate calculations.
  - ◇ *Culex* mosquitoes captured in the 5 zone traps and the **captures from the 2 nights per week during the peak of the trapping period should be co-mingled into the minimum number of pools.** This will extend limited testing resources.
  - ◇ Agencies can submit mosquito samples/pools prior to June 14<sup>th</sup> for WNV testing, but the agency will be billed.
- 5) **Data Maintenance:** Accurate records of trapping results must be maintained to allow year-to-year comparisons and monitor trends in mosquito populations. Dramatic changes in *Culex* population densities can provide an early indication of increasing human risk.
- ◇ It is recommended that all mosquitoes in the traps be identified to species and that population data be maintained for all species. Estimating numbers is acceptable for non-*Culex*
  - ◇ At a minimum, data to maintain should include: trapping dates, # mosquitoes in the zone traps, *Culex* population density by species (*C. tarsalis* and other *Culex* at a minimum), and weather conditions on night of mosquito trapping.
- 6) **Other Considerations:**
- ◇ Sentinel zones should contain areas that are suitable for *Culex* mosquitoes to breed and are in close proximity to human populations.
  - ◇ Sentinel zone traps should not be located in an area with regular, heavy spraying operations for adult mosquito or other arthropod control (orchards, tree farms/nurseries, or agriculture areas). Areas with ongoing larviciding are OK.

## ATTACHMENT C

- ✧ Traps within a zone should have an availability of mosquito resting sites and protection from wind (i.e. culverts, fences, shrubbery, trees, sheds, etc) and should be placed away from competing sources of light and carbon dioxide (e.g., livestock, including equine, bovine, and swine).
- ✧ Traps should be placed on the leeward side of obstacles if possible. For example, if the prevailing wind is generally from the west just after dusk, try to place the trap on the east side of trees, sheds, etc.

**STATE OF COLORADO  
CERTIFICATION AND AFFIDAVIT  
REGARDING UNAUTHORIZED IMMIGRANTS**

**A. CERTIFICATION STATEMENT      CRS 8-17.5-101 & 102 (HB 06-1343, SB 08-193)**

The Vendor, whose name and signature appear below, certifies and agrees as follows:

1. The Vendor shall comply with the provisions of CRS 8-17.5-101 et seq. The Vendor shall not knowingly employ or contract with an unauthorized immigrant to perform work for the State or enter into a contract with a subcontractor that knowingly employs or contracts with an unauthorized immigrant.
2. The Vendor certifies that it does not now knowingly employ or contract with an unauthorized immigrant who will perform work under this contract, and that it will participate in either (i) the "E-Verify Program", jointly administered by the United States Department of Homeland Security and the Social Security Administration, or (ii) the "Department Program" administered by the Colorado Department of Labor and Employment in order to confirm the employment eligibility of all employees who are newly hired to perform work under this contract.
3. The Vendor shall comply with all reasonable requests made in the course of an investigation under CRS 8-17.5-102 by the Colorado Department of Labor and Employment. If the Vendor fails to comply with any requirement of this provision or CRS 8-17.5-101 et seq., the State may terminate work for breach and the Vendor shall be liable for damages to the State.

**B. AFFIDAVIT      CRS 24-76.5-101 (HB 06S-1023)**

1. If the Vendor is a sole proprietor, the undersigned hereby swears or affirms under penalty of perjury under the laws of the State of Colorado that (check one):

- I am a United States citizen, or
- I am a Permanent Resident of the United States, or
- I am lawfully present in the United States pursuant to Federal law.

I understand that this sworn statement is required by law because I am a sole proprietor entering into a contract to perform work for the State of Colorado. I understand that state law requires me to provide proof that I am lawfully present in the United States prior to starting work for the State. I further acknowledge that I will comply with the requirements of CRS 24-76.5-101 et seq. and will produce the required form of identification prior to starting work. I acknowledge that making a false, fictitious, or fraudulent statement or representation in this sworn affidavit is punishable under the criminal laws of Colorado as perjury in the second degree under CRS 18-8-503 and it shall constitute a separate criminal offense each time a public benefit is fraudulantly received.

CERTIFIED and AGREED to this 7<sup>th</sup> day of May, 2010.

VENDOR:

Ed Fleming Edward M. Fleming  
Vendor Full Legal Name

BY: Ed Fleming President  
Signature of Authorized Representative Title



# ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID EH  
OTTER-1

DATE (MM/DD/YYYY)  
05/06/10

PRODUCER  
Cherry Creek Ins. Agency, Inc.  
Suite 500  
5660 Greenwood Plaza Blvd.  
Greenwood Village CO 80111  
Phone: 303-799-0110 Fax: 303-799-0156

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.

INSURED  
  
Ottetail Environmental  
Suite 210  
10200 West 44th Avenue  
Wheat Ridge CO 80033

INSURERS AFFORDING COVERAGE		NAIC #
INSURER A:	The Hartford Insurance Group	22357
INSURER B:	Pinnacol Assurance	41190
INSURER C:		
INSURER D:		
INSURER E:		

## COVERAGES

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

INSR	ADD'L	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	X	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	34SBAPC7671	06/23/09	06/23/10	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000
A		<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	34SBAPC7671	06/23/09	06/23/10	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		<b>GARAGE LIABILITY</b> <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
		<b>EXCESS/UMBRELLA LIABILITY</b> <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE  DEDUCTIBLE RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$
B		<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	4072127	07/01/09	07/01/10	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTF-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
		OTHER				

### DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

Jefferson County Government is additional insured regarding the Named Insured's operations for general liability per written contract per form SS0008 (04/05). Coverage is primary and non-contributory per written contract per form SS0008 (04/05).

### CERTIFICATE HOLDER

Jefferson County Government  
15200 W 6th Ave  
Golden CO 80401

### CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30\* DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE

*Elizabeth A Hart*

# ACORD CERTIFICATE OF LIABILITY INSURANCE

OP ID EH  
OTTER-1

DATE (MM/DD/YYYY)  
05/06/10

**PRODUCER**  
Cherry Creek Ins. Agency, Inc.  
Suite 500  
5660 Greenwood Plaza Blvd.  
Greenwood Village CO 80111  
Phone: 303-799-0110 Fax: 303-799-0156

**INSURED**  
  
Ottertail Environmental  
Suite 210  
10200 West 44th Avenue  
Wheat Ridge CO 80033

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<b>INSURERS AFFORDING COVERAGE</b>	<b>NAIC #</b>
INSURER A: The Hartford Insurance Group	22357
INSURER B: Pinnacol Assurance	41190
INSURER C:	
INSURER D:	
INSURER E:	

**COVERAGES**

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INSR ADD'L LTR	INSRD	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS
A	X	<b>GENERAL LIABILITY</b> <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR  GEN'L AGGREGATE LIMIT APPLIES PER: <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC	34SBAPC7671	06/23/09	06/23/10	EACH OCCURRENCE \$ 2,000,000 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000 MED EXP (Any one person) \$ 10,000 PERSONAL & ADV INJURY \$ 2,000,000 GENERAL AGGREGATE \$ 4,000,000 PRODUCTS - COMP/OP AGG \$ 4,000,000
A		<b>AUTOMOBILE LIABILITY</b> <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input checked="" type="checkbox"/> NON-OWNED AUTOS	34SBAPC7671	06/23/09	06/23/10	COMBINED SINGLE LIMIT (Ea accident) \$ 2,000,000 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$
		<b>GARAGE LIABILITY</b> <input type="checkbox"/> ANY AUTO				AUTO ONLY - EA ACCIDENT \$ OTHER THAN EA ACC \$ AUTO ONLY: AGG \$
		<b>EXCESS/UMBRELLA LIABILITY</b> <input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE  DEDUCTIBLE \$ RETENTION \$				EACH OCCURRENCE \$ AGGREGATE \$ \$ \$ \$
B		<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? If yes, describe under SPECIAL PROVISIONS below	4072127	07/01/09	07/01/10	<input checked="" type="checkbox"/> WC STATU-TORY LIMITS <input type="checkbox"/> OTH-ER E.L. EACH ACCIDENT \$ 1,000,000 E.L. DISEASE - EA EMPLOYEE \$ 1,000,000 E.L. DISEASE - POLICY LIMIT \$ 1,000,000
		OTHER				

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES / EXCLUSIONS ADDED BY ENDORSEMENT / SPECIAL PROVISIONS

**CERTIFICATE HOLDER**

Jefferson County Dept of Health and Environment  
Attn: Beth Lipscomb  
1801 19th Street  
Golden CO 80401

**CANCELLATION**

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL ENDEAVOR TO MAIL 30 DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, BUT FAILURE TO DO SO SHALL IMPOSE NO OBLIGATION OR LIABILITY OF ANY KIND UPON THE INSURER, ITS AGENTS OR REPRESENTATIVES.

AUTHORIZED REPRESENTATIVE  
*Elizabeth Hart*