AGENDA ITEM or FINAL CONTRACT REVIEW SUBMITTAL FORM

AgendaTitle:
Consultant Agreement; Western State Colorado University; Professional Services Regarding an Assessment of Potential Impacts Associated with Adult Mosquito Abatement Spraying on Macroinvertebrate Drift in Streams near Gunnison, Colorado

Action Requested: County Manager Signature

Parties to the Agreement: Gunnison County & Western State Colorado University

Term Begins: When executed **Term Ends:** 12/31/2013 **Grant Contract #:**

Summary:
Consultant Agreement with WSCU for an Assessment on Mosquito Abatement Spraying on macroinvertebrate drift in streams near Gunnison, CO.

Fiscal Impact: $7,598

Submitted by: M. Birnie **Submitter's Email Address:** mbirnie@gunnisoncounty.org

Finance Review: (●) Required ( ) Not Required

Comments:

This cost isn't in 2013 adopted budget. However, the projected ending available resource amount is $18,119 and can support this project. A budget amendment request will be prepared.

Reviewed by: Lnienhueser Discharge Date: 5/7/2013

County Attorney Review: (●) Required ( ) Not Required

Comments:

Reviewed by: ATrezise Discharge Date: 5/8/2013 Certificate of Insurance Required Yes (●) No ( )

County Manager Review:

Comments:

Reviewed by: MBirnie Discharge Date: 5/9/2013

(●) Consent Agenda ( ) Regular Agenda ( ) Worksession Time Allotted:

Agenda Date: 5/21/2013 Follow Up Agenda Date: N/A

Revised April 2013

CONSULTANT AGREEMENT

THIS CONSULTANT AGREEMENT ("Agreement") made effective the ___ day of _____, 2013, by and between the Board of County Commissioners of the County of Gunnison, Colorado, whose address is 200 East Virginia, Gunnison, CO 81230 (hereinafter "Gunnison County") and Western State Colorado University, Department of Natural and Environmental Science, Attn: Kevin Alexander, whose address is _____ , Gunnison, CO 81231 (hereinafter "Consultant").

RECITALS

The Consultant desires to provide professional services regarding an assessment of potential impacts associated with adult mosquito abatement spraying on macroinvertebrate drift in streams near Gunnison, Colorado as identified in the Proposal to Gunnison Board of County Commissioners, dated March 8, 2013, attached hereto and incorporated herein by reference as Appendix "A ("Services").

Gunnison County desires to engage Consultant to provide Services according to this Agreement.

AGREEMENT

NOW THEREFORE, in consideration of the Recitals and the mutual covenants and obligations hereinafter set forth, the parties agree as follows:

1. SERVICES.

Consultant shall furnish all materials, labor, supervision, supplies and equipment to commence, diligently pursue, and complete the Services as more specifically set forth on Appendix "A". All Services shall be performed in a timely manner and in accordance with generally accepted standards for Consultant's profession and all applicable federal, state and local laws and regulations affecting the Services or the subject matter thereof. Consultant acknowledges that this is a non-exclusive Agreement, and Gunnison County may contract with additional or other providers able to furnish the same or similar services as it deems appropriate to do so.

2. TERM.

The term of this Agreement shall commence on the date first set forth above and shall terminate on December 31, 2013, unless sooner terminated or replaced as provided herein.

3. STRATEGIC RESULT.

Execution of this Agreement will assist the County with its Strategic Result in the Board of County Commissioners Strategic Plan. "Gunnison County shall work with its partners

to protect water quality and quantity for in-basin purposes in a manner that is socially, environmentally and economically sound."

4. COMPENSATION, BONUS AND EXPENSES.

In consideration and exchange for Consultant's performance of the Services, during the Term, Gunnison County shall pay Consultant fees as more specifically not to exceed Seven Thousand Five Hundred Ninety-Eight and No/100 U. S. Dollars ($7,598.00) pursuant to Consultant's Budget as identified on page 4 of Appendix "A".

The Compensation shall compensate Consultant for all charges, expenses, overhead, payroll costs, employee benefits, insurance subsistence, and profits, except as specifically set forth herein.

This Agreement is subject to Gunnison County making an annual budget appropriation in an amount sufficient to fund this Agreement. If Gunnison County fails or refuses to make such an appropriation, Gunnison County reserves the right to terminate this Agreement without penalty to Consultant pursuant to paragraph 13 of this Agreement.

5. INSURANCE.

Consultant agrees that at all times during the Term of this Agreement that Consultant shall carry and maintain, in full force and effect and at its sole cost and expense, the following insurance policies. Within thirty (30) days of the execution of this Agreement, Consultant will provide insurance certificates to Gunnison County, listing Gunnison County as an additional insured, for the coverage's required herein which shall state that such policies shall not be materially changed or cancelled without thirty (30) days prior notice to Gunnison County.

a) Worker's Compensation Insurance in accordance with Colorado and Federal law which adequately protects all labor employed by Consultant during the term of this Agreement.

b) Comprehensive General Liability Insurance or the equivalent in an amount not less than $1,000,000 each occurrence and $2,000,000 aggregate for Bodily Injury Liability and $500,000 for Property Damage Liability.

c) Comprehensive automobile liability insurance on all vehicles used in the Services, in an amount no less than one hundred fifty thousand dollars for any injury to one person in any single occurrence and in an amount no less than $600,000 for any injury to two or more persons in any single occurrence.

6. INDEPENDENT CONTRACTOR.

In carrying out its obligations and activities under this Agreement, Consultant is acting as an independent contractor and not as an agent, partner, joint venture or employee of Gunnison County. Consultant does not have any authority to bind Gunnison County in any manner whatsoever.

Consultant acknowledges and agrees that Consultant is not entitled to: (i) unemployment insurance benefits; or (ii) Workers Compensation coverage, from Gunnison County. Further, Consultant is obligated to pay federal and state income tax on any moneys paid it related to the services.

7. INDEMNIFICATION.

Consultant agrees to indemnify, defend and hold harmless Gunnison County, its Commissioners, agents and employees of and from any and all liability, claims, liens, demands, actions and causes of action whatsoever (including reasonable attorney's and expert's fees and costs) arising out of or related to any loss, cost, damage or injury, including death, of any person or damage to property of any kind caused by the misconduct or negligent acts, errors or omissions of Consultant or its employees, subcontractors or agents in connection with this Agreement.

This provision shall survive any termination or expiration of this Agreement with respect to any liability, injury or damage occurring prior to such termination.

8. DISCRIMINATION.

The Consultant agrees not to discriminate against any person or class of persons by reason of age, race, color, sex, creed, religion, disability, national origin, sexual orientation or political affiliation in providing any services or in the use of any facilities provided for the public in any manner prohibited by Part 21 of the Regulations of the Office of the Secretary of Transportation. Consultant shall further comply with the letter and spirit of the Colorado Anti-Discrimination Act of 1957, as amended, and any other laws and regulations respecting discrimination in unfair employment practices. Additionally, Consultant shall comply with such enforcement procedures as any governmental authority might demand that Gunnison County take for the purpose of complying with any such laws and regulations.

9. IMMIGRATION COMPLIANCE CERTIFICATION.

a) Consultant certifies that Consultant does not and will not knowingly contract with or employ illegal aliens to work under this Agreement.

b) Consultant certifies that Consultant has required its subcontractors to certify that they do not knowingly contract with or employ illegal aliens to work under this Agreement.

c) Consultant certifies that it has attempted to verify the eligibility of its employees and subcontractors to work through the Basic Pilot Employment Verification Program administered by the Social Security Administration and Department of Homeland Security.

d) Consultant agrees to comply with all reasonable requests made in the course of an investigation under C.R.S. 8-17.5-102 by the Colorado Department of Labor and Employment.

e) Consultant agrees to comply with the provisions of C.R.S. 8-17.5-101 et seq.

10. ADA COMPLIANCE.

The Consultant assures Gunnison County that at all times during the performance of this Agreement no qualified individual with a disability shall, by reason of such disability, be exclude from participation in, or denied benefits of the service, programs, or activities performed by the Consultant, or be subjected to any discrimination by the Consultant upon which assurance Gunnison County relies.

11. MISCELLANEOUS.

a) SEVERABILITY. If any clause or provision of this Agreement shall be held to be invalid in whole or in part, then the remaining clauses and provisions, or portions thereof, shall nevertheless be and remain in full force and effect.

b) AMENDMENT. No amendment, alteration, modification of or addition to this Agreement shall be valid or binding unless expressed in writing and signed by the parties to be bound thereby.

c) NO WAIVER OF GOVERNMENTAL IMMUNITY. Nothing in this Agreement is, or shall be construed to be, a waiver, in whole or part, by Gunnison County of governmental immunity provided by the Colorado Governmental Immunity Act or otherwise.

12. DELEGATION AND ASSIGNMENT.

This is a personal services contract with Consultant and, therefore, Consultant shall not delegate or assign its duties under this Agreement without the prior written consent of Gunnison County which consent Gunnison County may withhold in its discretion. Subject to the foregoing, the terms, covenants and conditions of this Agreement shall be binding on the successors and assigns of either party.

13. TERMINATION.

Either party shall have the right to terminate this Agreement at any time, with or without cause, upon thirty (30) days prior written notice to the other. Upon termination, Consultant shall be entitled to compensation for Services performed prior to the date of termination, per the compensation terms outlined in Exhibit A.

14. NOTICES.

Any notice, demand or communication which either party may desire or be required to give to the other party shall be in writing and shall be deemed sufficiently given or rendered if delivered personally or sent by certified first class US mail, postage prepaid, addressed as follows:

Gunnison County: County Manager
Gunnison County
200 E. Virginia
Gunnison, Colorado 81230
Phone: 970-641-0248

With a copy to: Board of County Commissioners
of the County of Gunnison, Colorado
200 E. Virginia
Gunnison, Colorado 81230

Consultant: Western State Colorado University
Attn: Kevin Alexander
_____
Gunnison, CO 81231

Either party has the right to designate in writing, served as provided above, a different address to which any notice, demand or communication is to be mailed.

15. GOVERNING LAW.

This Agreement shall be governed by and interpreted in accordance with the laws of the State of Colorado. Exclusive jurisdiction and venue for any legal proceedings related to this Agreement shall be in the state District Court governing Gunnison, Colorado.

16. COUNTERPARTS: FACSIMILE TRANSMISSION.

This Agreement may be executed by facsimile and/or in any number of counterparts, any or all of which my contain the signatures of less than all the parties, and all of which shall be construed together as but a single instrument and shall be binding on the parties as though originally executed on one originally executed document. All facsimile counterparts shall be promptly followed with delivery of original executed counterparts.

17. ENTIRE AGREEMENT.

This Agreement contains the entire agreement between the parties hereto with respect to the subject matter hereof, and supersedes any and all prior agreements, proposals, negotiations and representations pertaining to the obligations to be performed hereunder.

IN WITNESS WHEREOF, the parties have executed this Agreement as of the date above written.

BOARD OF COUNTY COMMISSIONERS
OF THE COUNTY OF GUNNISON, COLORADO

By: _____
Matthew Birnie, County Manager

ATTEST:

_____
Deputy Clerk

WESTERN STATE COLORADO UNIVERSITY
Department of Natural and Environmental Science

By: _____

Approved. Maria Tomany, 5-2-13
Maria-Claudia Tomany
Associate Vice President of Academic Affairs

PROPOSAL TO GUNNISON BOARD OF COUNTY COMMISSIONERS

March 08, 2013

AN ASSESSMENT OF POTENTIAL IMPACTS ASSOCIATED WITH ADULT MOSQUITO ABATEMENT SPRAYING ON MACROINVERTEBRATE DRIFT IN STREAMS NEAR GUNNISON, COLORADO

CORBIN BENNETTS[1], TIM LAPELLO[2] AND KEVIN ALEXANDER, PH.D.[1,2]

[1]*Department of Natural and Environmental Science, Western State Colorado University, Gunnison, Colorado 81231*
[2]*Bio-Environs, LLC.,* 114 N. Boulevard, Suite 206, Gunnison, Colorado 81230

INTRODUCTION

Mosquitoes (Diptera: Culicidae) inhabit riparian zones and irrigated hay meadows throughout the upper Gunnison River Valley. Due to public concerns, including the spread of diseases, such as West Nile virus (Knight *et al.,* 2003), for both livestock and humans, Colorado Mosquito Control is contracted to reduce mosquito populations and reduce the adult mosquito population through the aerial application of the adult mosquito control agent BIOMIST® or similar insecticides. These insecticides that are aerially applied in the upper Gunnison River valley in an attempt to reduce the number of adult mosquitos and the impacts of hatches and outbreaks that occur in proximity to livestock and human activity (personal communication, C. Kruthaupt, Colorado Mosquito Control).

Permethrin, the active ingredient in BIOMIST® and similar insecticides, is a pesticide that is used in insect control measures and is a known toxin to insects and aquatic organisms. The introduction of Permethrin to local stream systems via unintentional airborne drift of these insecticides during aerial application to associated riparian areas and /or through return irrigation waters after application to irrigated meadows are possible ways that Permethrin could enter into streams. Upon entering a stream, Permethrin has the potential to negatively impact aquatic insect populations and reduce productivity within local streams. The aquatic insect 'die- offs' that have been recently observed along local streams may be an indication that the introduction of Permethrin through aerial drift and irrigation return to streams may be causing the reduction of aquatic insect populations in affected streams. A reduction in these aquatic insects can have negative impacts on the entire stream ecosystem and stream productivity. A substantial decline of aquatic macroinvertebrates (large aquatic invertebrates such as aquatic insects) is harmful to trout, birds, wildlife and aquatic vegetation. These

such as a flood or toxin, or as they die. If substantial amounts of Permethrin enter into these streams and have a negative effect, then macroinvertebrate drift will significantly increase above background levels immediately after the spraying. This would indicate a response to unfavorable conditions such as the introduction of Permethrin potentially resulting in toxic conditions. If the 2013 spraying does not have a negative impact, stream drift will not change significantly, indicating that the aquatic insects and the stream community are not substantially affected by the event.

To determine the number of macroinvertebrates naturally drifting downstream, we will deploy four 363μm mesh drift nets placed at predetermined locations near aerial spraying in each stream plus one upstream reference site prior to mosquito spraying. The nets will be secured to the bottom of the river using two foot long metal stakes. At the end of each sampling period, the macroinvertebrates will be collected from the nets and preserved in ethanol. Later in the laboratory, the macroinvertebrates will be sorted, enumerated, identified and categorized into functional groups. The nets will then be placed back in the same locations the day the aerial insecticide is applied to determine any changes in drift after the application of the aerial insecticide. Again, daily for three days, the macroinvertebrates will be collected from the nets, preserved in ethanol where they will be transported to the laboratory to be enumerated, identified and categorized into functional groups. Flow at each drift net will also be collected to determine volume of water flowing into each net to quantify drift density.

To analyze the data, an ANOVA statistical test will be done to compare the number of drifting macroinvertebrates within each functional group, before the mosquito spraying to the number drifting after the mosquito spraying. A p value less than 0.1 obtained from this research would indicate that there is a difference of macroinvertebrate drift before and after spraying, otherwise the data would indicate no difference in macro invertebrate drift before and after spraying.

REFERENCES

Colorado Department of Public Health and Environment, Water Quality Control Division. 2010. Aquatic Life Use Attainment. Methodology to determine use Attainment for Rivers and Streams. Policy Statement 10-1. Approved October 12, 2010.

Knight, Robert L., W.E. Waltonb, G.F. O'Mearac, W.K. Reisend, R. Wass. 2003. Strategies for effective mosquito control in constructed treatment wetlands. Ecological Engineering 21:211-232

Merritt, R.W., K.W. Cummins and M.B. Berg. 2008. An Introduction to the Aquatic Insects of North America, Fourth Edition. Kendall Hunt Publishing Company. Dubuque, IA. 1158 pp.