



**ADMINISTRATIVE SERVICES DEPARTMENT  
Purchasing and Contracts Division**

**CONFIRMATION FORM  
for  
RECEIPT OF RFP NO. 603847-15**

If you are interested in this invitation, immediately upon receipt please fax this confirmation form to the fax number provided at the bottom of this page.

Failure to do so means you are not interested in the project and do not want any associated addenda mailed to you.

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**SUPPLIER ACKNOWLEDGES RECEIVING THE FOLLOWING RFP DOCUMENT:**

PROJECT NO.      RFP NO. 603847-15      RFP PAGES: 69

DESCRIPTION:    DESERT TORTOISE RANGE-WIDE MONITORING

**SUPPLIER MUST COMPLETE THE FOLLOWING INFORMATION:**

Company Name: \_\_\_\_\_

Company Address: \_\_\_\_\_

City / State / Zip: \_\_\_\_\_

Name / Title: \_\_\_\_\_

Area Code/Phone Number: \_\_\_\_\_

Area Code/Fax Number: \_\_\_\_\_

Email Address: \_\_\_\_\_

**FAX THIS CONFIRMATION FORM TO: (702) 386-4914**

**TYPE or PRINT CLEARLY**

# CLARK COUNTY, NEVADA REQUEST FOR PROPOSAL

## RFP NO. 603847-15 DESERT TORTOISE RANGE-WIDE MONITORING

The RFP package is available as follows:

- Internet – Visit the Clark County Purchasing and Contracts Division website at <http://www.ClarkCountyNV.gov/Purchasing>. Click on “Current Opportunities” and locate Document No. 603847 in the list of current solicitations.
- Mail – Please fax a request to (702) 386-4914 specifying project number and description. Be sure to include company address, phone and fax numbers.
- Pick up - Clark County Government Center, 500 South Grand Central Parkway, Purchasing and Contracts Division, Fourth Floor, Las Vegas, NV 89106.

A Pre-Proposal Conference will be held on **OCTOBER 15, 2015** at **1:15 p.m.**, at the address specified above in the Gold Conference Room. If your firm is unfamiliar with the County Request for Proposal (RFP) procedures and would like to obtain training on the submittal process for this RFP, please contact Sherry Wimmer, Purchasing Analyst, at (702) 455-4476 no later than **MONDAY, OCTOBER 12, 2015**, and a training session will be provided immediately following the pre-proposal conference referenced above.

Proposals will be accepted at the Clark County Government Center address specified above, on or before **OCTOBER 23, 2015** at **3:00:00 p.m.**, based on the time clock at the Clark County Purchasing and Contracts front desk.

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PUBLISHED:  
Las Vegas Review Journal  
SEPTEMBER 24, 2015

GENERAL CONDITIONS

RFP NO. 603847-15  
DESERT TORTOISE RANGE-WIDE MONITORING

1. TERMS

The term "COUNTY," as used throughout this document will mean the County of Clark, Nevada. The term "BCC" as used throughout this document will mean the Board of County Commissioners which is the Governing Body of Clark County. The term "CHIEF FINANCIAL OFFICER" as used throughout this document will mean the Clark County Chief Financial Officer or her designee responsible for the Purchasing and Contracts Division. The term "PROPOSER" as used throughout this document will mean the respondents to this Request for Proposal. The term "RFP" as used throughout this document will mean Request for Proposal.

2. INTENT

COUNTY is soliciting proposals for Desert Tortoise Range-Wide Monitoring Services for Department of Comprehensive Planning.

3. SCOPE OF PROJECT

The purpose of this RFP is to solicit proposal from qualified biological firms to conduct desert tortoise monitoring in the form of line distance sampling across Clark County, Nevada and adjacent areas. The contract term will be from 2016 through 2020.

4. DESIGNATED CONTACTS

COUNTY'S representative will be Sherry Wimmer, Purchasing Analyst, Clark County Administrative Services Department, Purchasing and Contracts Division, sherry.wimmer@clarkcountynv.gov. This representative will respond to questions concerning the scope of work of this RFP and questions regarding the selection process for this RFP.

5. CONTACT WITH COUNTY DURING RFP PROCESS

Communication between a PROPOSER and a member of the BCC or between a PROPOSER and a non-designated COUNTY contact regarding the selection of a proponent or award of this Contract is prohibited from the time the RFP is advertised until the item is posted on an agenda for award of the Contract. Questions pertaining to this RFP shall be addressed to the designated contact(s) specified in the RFP document. Failure of a PROPOSER, or any of its representatives, to comply with this paragraph may result in their proposal being rejected.

6. TENTATIVE DATES AND SCHEDULE

Pre-Proposal Meeting: October 15, 2015, 1:15 p.m. Pacific, Gold Conference Room  
Last Day to Ask Questions: October 19, 2015  
Last Day County Will Provide Addendum: October 21, 2015  
Proposal Due Date: October 23, 2015, 3:00:00 p.m. Pacific  
Finalists Selection: November/December 2015  
Finalists Oral Presentations: November/December 2015  
Final PROPOSER Selection: November/December 2015  
Contract Negotiations: November/December 2015  
Award & Approval of the Final Contract(s): November/December 2015

7. METHOD OF EVALUATION AND AWARD

Since the service requested in this RFP is considered to be a professional service, award will be in accordance with the provisions of the Nevada Revised Statutes, Chapter 332, Purchasing: Local Governments, Section 332.115.

The proposals may be reviewed individually by staff members through an ad hoc committee to assist the PURCHASING MANAGER OR HER DESIGNEE. The finalists may be requested to provide COUNTY a presentation and/or an oral interview. The ad hoc staff committee may review the RFP's as well as any requested presentations and/or oral interviews to gather information that will assist in making the recommendation. COUNTY reserves the right to award the Contract based on objective and/or subjective evaluation criteria. This Contract will be awarded on the basis of which proposal COUNTY deems best suited to fulfill the requirements of the RFP. COUNTY also reserves the right not to make an award if it is deemed that no single proposal fully meets the requirement of this RFP.

The fees for the professional services will be negotiated with the PROPOSER(S) selected.

8. SUBMITTAL REQUIREMENTS

The proposal submitted should not exceed 30 pages. Other attachments may be included with no guarantee of review.

All proposals shall be on 8-1/2" x 11" paper bound with tabbed dividers labeled by section to correspond with the evaluation information requested. The ideal proposal will be 3-hole punched and bound with a binder clip. Binders or spiral binding is not preferred or required.

**The PROPOSER shall submit one (1) clearly labeled original and 4 copies of their proposal, including one (1) CD or flash drive with an electronic copy of their proposal, preferably in .pdf format. A single .pdf document of the entire proposal is preferred.** The name of the PROPOSER'S firm shall be indicated on the spine and cover of each binder (if used) and CD label.

All proposals must be submitted in a sealed envelope plainly marked with the name and address of the PROPOSER and the RFP number and title. No responsibility will attach to COUNTY or any official or employee thereof, for the pre-opening of, post-opening of, or the failure to open a proposal not properly addressed and identified. Proposals are time-stamped upon receipt. Proposals time-stamped after 3:00:00 p.m. based on the time clock at the Clark County Purchasing and Contracts front desk will be recorded as late, remain unopened and be formally rejected. FAXED OR ELECTRONIC SUBMITTALS ARE NOT ALLOWED AND WILL NOT BE CONSIDERED.

The following are detailed delivery/mailling instructions for proposals:

<u>Hand Delivery</u>	<u>U.S. Mail Delivery</u>	<u>Express Delivery</u>
Clark County Government Center Purchasing and Contracts Division 500 South Grand Central Parkway, 4 <sup>th</sup> Fl Las Vegas, Nevada 89106	Clark County Government Center Attn: Purchasing and Contracts, 4 <sup>th</sup> Fl 500 South Grand Central Parkway P.O. Box 551217 Las Vegas, Nevada 89155-1217	Clark County Government Center Attn: Purchasing and Contracts, 4 <sup>th</sup> Fl 500 South Grand Central Parkway Las Vegas, Nevada 89106

Regardless of the method used for delivery, PROPOSER(S) shall be wholly responsible for the timely delivery of submitted proposals.

9. WITHDRAWAL OF PROPOSAL

PROPOSER(S) may request withdrawal of a posted, sealed proposal prior to the scheduled proposal opening time provided the request for withdrawal is submitted to the Purchasing Analyst in writing or a proposal release form has been properly filled out and submitted to the Purchasing and Contracts Division reception desk. Proposals must be re-submitted and time-stamped in accordance with the RFP document in order to be accepted.

No proposal may be withdrawn for a period of 90 calendar days after the date of proposal opening. All proposals received are considered firm offers during this period. The PROPOSER'S offer will expire after 90 calendar days.

If a PROPOSER intended for award withdraws their proposal, that PROPOSER may be deemed non-responsible if responding to future solicitations.

10. REJECTION OF PROPOSAL

COUNTY reserves the right to reject any and all proposals received by reason of this request.

11. PROPOSAL COSTS

There shall be no obligation for COUNTY to compensate PROPOSER(S) for any costs of responding to this RFP.

12. ALTERNATE PROPOSALS

Alternate proposals are defined as those that do not meet the requirements of this RFP. Alternate proposals will not be considered.

13. ADDENDA AND INTERPRETATIONS

If it becomes necessary to revise any part of the RFP, a written addendum will be provided to all PROPOSERS in written form from the Purchasing Analyst. COUNTY is not bound by any specifications by COUNTY'S employees, unless such clarification or change is provided to PROPOSERS in written addendum form from the Purchasing Analyst.

14. PUBLIC RECORDS

COUNTY is a public agency as defined by state law, and as such, it is subject to the Nevada Public Records Law (Chapter 239 of the Nevada Revised Statutes). Under that law, all of COUNTY'S records are public records (unless otherwise declared by law to be confidential) and are subject to inspection and copying by any person. However, in accordance with NRS 332.061(2), a proposal that requires negotiation or evaluation by COUNTY may not be disclosed until the proposal is recommended for award of a contract. PROPOSER(S) are advised that once a proposal is received by COUNTY, its contents will become a public record and nothing contained in the proposal will be deemed to be confidential except proprietary information. PROPOSER(S) shall not include any information in their proposal that is proprietary in nature or that they would not want to be released to the public. Proposals must contain sufficient information to be evaluated and a contract written without reference to any proprietary information.

If a PROPOSER feels that they cannot submit their proposal without including proprietary information, they must adhere to the following procedure or their proposal may be deemed unresponsive and will not be recommended to the BCC for selection:

PROPOSER(S) must submit such information in a separate, sealed envelope labeled "Proprietary Information" with the RFP number. The envelope must contain a letter from the PROPOSER'S legal counsel describing the documents in the envelope, representing in good faith that the information in each document meets the narrow definitions of proprietary information set forth in NRS 332.025, 332.061 and NRS Chapter 600A, and briefly stating the reasons that each document meets the said definitions.

Upon receipt of a proposal accompanied by such a separate, sealed envelope, COUNTY will open the envelope to determine whether the procedure described above has been followed.

Any information submitted pursuant to the above procedure will be used by COUNTY only for the purposes of evaluating proposals and conducting negotiations and might never be used at all.

If a lawsuit or other court action is initiated to obtain proprietary information, a PROPOSER(S) who submit the proprietary information according to the above procedure must have legal counsel intervene in the court action and defend the secrecy of the information. Failure to do so shall be deemed PROPOSER'S consent to the disclosure of the information by COUNTY, PROPOSER'S waiver of claims for wrongful disclosure by COUNTY, and PROPOSER'S covenant not to sue COUNTY for such a disclosure.

PROPOSER(S) also agrees to fully indemnify COUNTY if COUNTY is assessed any fine, judgment, court cost or attorney's fees as a result of a challenge to the designation of information as proprietary.

15. PROPOSALS ARE NOT TO CONTAIN CONFIDENTIAL / PROPRIETARY INFORMATION

Proposals must contain sufficient information to be evaluated and a contract written without reference to any confidential or proprietary information. PROPOSER(S) shall not include any information in their proposal that they would not want to be released to the public. Any proposal submitted that is marked "Confidential" or "Proprietary," or that contains materials so marked, will be returned to the PROPOSER and will not be considered for award.

16. COLLUSION AND ADVANCE DISCLOSURES

Pursuant to 332.165 evidence of agreement or collusion among PROPOSER(S) and prospective PROPOSER(S) acting to illegally restrain freedom of competition by agreement to bid a fixed price, or otherwise, shall render the offers of such PROPOSER(S) void.

Advance disclosures of any information to any particular PROPOSER(S) which gives that particular PROPOSER any advantage over any other interested PROPOSER(S), in advance of the opening of proposals, whether in response to advertising or an informal request for proposals, made or permitted by a member of the governing body or an employee or representative thereof, shall operate to void all proposals received in response to that particular request for proposals.

17. CONTRACT

A sample of COUNTY'S Standard Contract is attached. Any proposed modifications to the terms and conditions of the Standard Contract are subject to review and approval by the Clark County District Attorney's Office.

18. BUSINESS LICENSE REQUIREMENTS

CLARK COUNTY BUSINESS LICENSE / REGISTRATION

Prior to award of this RFP, other than for the supply of goods being shipped directly to a Clark County facility, the successful PROPOSER will be required to obtain a Clark County business license or register annually as a limited vendor business with the Clark County Business License Department.

A. Clark County Business License is Required if:

- i. A business is physically located in unincorporated Clark County, Nevada.
- ii. The work to be performed is located in unincorporated Clark County, Nevada.

B. Register as a Limited Vendor Business Registration if:

- i. A business is physically located outside of unincorporated Clark County, Nevada.
- ii. A business is physically located outside the state of Nevada.

The Clark County Department of Business License can answer any questions concerning determination of which requirement is applicable to your firm. It is located at the Clark County Government Center, 500 South Grand Central Parkway, 3<sup>rd</sup> Floor, Las Vegas, NV or you can reach them via telephone at (702) 455-4253 or toll free at (800) 328-4813.

You may also obtain information on-line regarding Clark County Business Licenses by visiting the website at ([http://www.clarkcountynv.gov/Depts/business\\_license/Pages/default.aspx](http://www.clarkcountynv.gov/Depts/business_license/Pages/default.aspx))

19. EVALUATION CRITERIA

Proposals should contain the following information:

A. **Organizational Information (not to exceed four pages)**

- i. Provide your organization's name, address, internet URL (if any), telephone and fax numbers, include the name, title, direct phone number and address, and E-mail address of the individual who will serve as your organization's primary contact.
- ii. Provide a brief description of your organization locally, statewide and nationally (if applicable). Include the year your firm was established.
- iii. Indicate if your firm is a minority-owned business, women-owned business, physically challenged business, small business, or a Nevada business enterprise as defined in Exhibit C of the attached contract.
- iv. If the project is to be accomplished through an affiliation or joint venture of several firms, the names and address of those firms, shall be furnished for each.
- v. Complete and submit the attached Disclosure of Ownership/Principals form with this proposal.
- vi. CONTRACTOR must provide a statement that firm will comply with insurance requirements in Exhibit D of Sample Contract (attached). (Insurance is required if services are to be provide on-site).
- vii. Indicate any exceptions that your firm would have to take in order to accept the attached Standard Contract. CONTRACTOR(S) are advised that any exception that is determined to be material may be grounds for elimination in the selection process.
- viii. List any other factor known to CONTRACTOR that could materially impair the ability of CONTRACTOR to carry out its duties and obligations under this Contract or that could materially affect COUNTY'S decision.

B. **Firm Experience (not to exceed 5 pages)**

- i. Provide a statement as the degree of the CONTRACTOR'S knowledge and familiarity with the Clark County Multiple Species Habitat Conservation Plan (MSHCP) and the DCP's needs and goals.
- ii. Please provide an organizational chart of your organization.
- iii. Include a brief resume of all similar projects your firm has performed for the past 3 years. Each project listed shall include the name and phone number of a contact person for the project for review purposes. This section shall include documentation of the CONTRACTOR'S history of adherence to budget and schedule constraints. All firms are encouraged to indicate their experience of performing related work within the state of Nevada.

C. **Staff Experience and Qualifications (not to exceed 10 pages)**

- i. Staff Availability: Indicate the present workload of the project staff to demonstrate their ability to devote sufficient time to meet the proposed schedule.
- ii. Project Manager Experience and Qualifications: CONTRACTOR shall include the project manager's professional resume. The resume should describe the qualifications and experience the proposed project manager has with managing similar wild desert tortoise projects. Include any professional training, degrees, and/or relevant experience including experience managing other related projects.
- iii. Data Manager: CONTRACTOR should include a data manager who is qualified to assist with data organization and quality control upon contract award. CONTRACTOR shall include the data manager's professional resume. The resume should describe the qualifications and experience the proposed data manager has with managing similar data management projects. Include any professional training, degrees, and/or relevant experience including experience with other line distance sampling projects.
- iv. Field Staff: CONTRACTOR should include resumes for all current staff that will assist on this project as either a line distance surveyor performing radio telemetry. Due to multi-year nature of the project and the large number of dedicated seasonal workers needed to complete this project within the timing window preference will be given to firms that show a good approach to recruiting such a staff. CONTRACTOR should include a list of projects where they have accomplished similar hiring in the past including the project type and number of people hired.

D. **Description of Proposed Project and Work Plan (not to exceed 5 pages)**

Describe in more detail the CONTRACTOR's approach to the project. Include a preliminary project plan that includes:

- CONTRACTOR'S concept of the project including the methodology to be used and the major deliverables to be produced, including Proposed Services and details for all other proposed solutions and technology.
- Any assumptions.

- Any constraints.
- Proposed days and hours of operation.
- State why the CONTRACTOR is best suited to perform the services for this project.

E. **Project Fee (not to exceed 3 pages)**

CONTRACTOR shall submit their fee structure for the services described in this RFP. Fees shall be inclusive of all costs and shall be separated out on an annual basis at minimum. The total cost of Gold Butte surveys should be separated from the rest of the survey costs (within the 2016, 2018, and 2020 years) as this may be moved to the following year due to access issue.

F. **Other (may be included as an attachment, if applicable)**

Other factors the CONTRACTOR determines appropriate which would indicate to COUNTY that the CONTRACTOR has the necessary capability, competence, and performance record to accomplish the project in a timely and cost-effective manner.

G. **Proposal Review Criteria**

All responses to this RFP shall be evaluated as follows:

- Organizational Information: 0-13 points
- Firm Experience: 0-30 points
- Staff Experience and Qualifications: 0-45 points
- Description of Proposed Project and Work Plan: 0-20 points
- Project Fee: 0-20 points

**CLARK COUNTY, NEVADA**  
**CONTRACT FOR DESERT TORTOISE RANGE-WIDE**  
**MONITORING**

**RFP NO. 603847-15**

<b>//ENTER COMPANY NAME//</b>
NAME OF FIRM
<i>//Enter Designated Contact Name//</i>
DESIGNATED CONTACT, NAME AND PROJECT (Please type or print)
<i>//Enter Street Address//</i> <i>//City, State and Zip Code//</i>
ADDRESS OF FIRM INCLUDING CITY, STATE AND ZIP CODE
(XXX) XXX-XXXX
(AREA CODE) AND TELEPHONE NUMBER
(XXX) XXX-XXXX
(AREA CODE) AND FAX NUMBER
<i>//Enter Email Address//</i>
E-MAIL ADDRESS

## DESERT TORTOISE RANGE-WIDE MONITORING

This Contract (herein after referred to as CONTRACT) is entered into on this ##XX day of Enter Month 20XX, by and between CLARK COUNTY, administered by the Clark County Department of Comprehensive Planning, (herein after referred to as COUNTY), a political subdivision of the State of Nevada, and //LEGAL NAME// (hereinafter referred to as CONSULTANT), a public CONSULTANT, for Desert Tortoise Range-Wide Monitoring (herein after referred to as PROJECT).

### WITNESSETH:

WHEREAS, COUNTY is required to approve and implement conservation actions and activities within Clark County, Nevada over the thirty year term of the Multiple Species Habitat Conservation Plan (MSHCP) Permit #TE034927-0, effective February 1, 2001 accessible on the following website: <http://www.clarkcountynv.gov/Depts/dcp/Pages/GuidingDocuments.aspx>.

WHEREAS, CONSULTANT has the personnel and resources necessary to accomplish the PROJECT within the required schedule and in the firm fixed amount of \$ENTER AMT including all travel, lodging, meals, equipment and miscellaneous expenses.

WHEREAS, CONSULTANT has the required licenses and/or authorizations pursuant to all federal, State of Nevada and local laws in order to conduct business relative to this Contract.

WHEREAS, the sources of funds necessary to pay for the actions and activities described in Exhibit A, Scope of Work are generated from mitigation fees collected pursuant to Section 10 of the Endangered Species Act (Section 10 Funds) and Section 2.8 of the MSHCP (2000) accessible on the following website: <http://www.clarkcountynv.gov/depts/dcp/pages/CurrentHCP.aspx>.

NOW, THEREFORE, COUNTY and CONSULTANT agree as follows:

#### **SECTION I: TERM OF CONTRACT**

COUNTY agrees to retain CONSULTANT for the period from //ENTER DATE// through //ENTER DATE//, with the option to renew for Options, Enter Term-year periods subject to the provisions of Sections V and VII herein. During this period, CONSULTANT agrees to provide services as required by COUNTY within the scope of this Contract. COUNTY reserves the right to extend the Contract for up to an additional three (3) months for its convenience.

#### **SECTION II: RESPONSIBILITY OF CONSULTANT**

A. It is understood that in the performance of the services herein provided for, CONSULTANT shall be, and is, an independent contractor, and is not an agent, representative or employee of COUNTY and shall furnish such services in its own manner and method except as required by this Contract. Further, CONSULTANT has and shall retain the right to exercise full control over the employment, direction, compensation and discharge of all persons employed by CONSULTANT in the performance of the services hereunder. CONSULTANT shall be solely responsible for, and shall indemnify, defend and hold COUNTY harmless from all matters relating to the payment of its employees, including compliance with social security, withholding and all other wages, salaries, benefits, taxes, demands, and regulations of any nature whatsoever.

- B. In accordance with the Immigration Reform and Control Act of 1986, CONSULTANT agrees that it will not employ unauthorized aliens in the performance of this Contract.
- C. CONSULTANT acknowledges that the COUNTY has an obligation to ensure that public funds are not used to subsidize private discrimination. CONSULTANT recognizes that if they or their subcontractors are found guilty by an appropriate authority of refusing to hire or do business with an individual or company due to reasons of race, color, religion, sex, sexual orientation, gender identity or expression, age, disability, national origin, or any other protected status, the COUNTY may declare the CONSULTANT in breach of the Contract, terminate the Contract, and designate the CONSULTANT as non-responsible.
- D. CONSULTANT acknowledges that CONSULTANT and any subcontractors, agents or employees employed by CONSULTANT shall not, under any circumstances, be considered employees of COUNTY, and that they shall not be entitled to any of the benefits or rights afforded employees of COUNTY, including, but not limited to, sick leave, vacation leave, holiday pay, Public Employees Retirement System benefits, or health, life, dental, long-term disability or workers' compensation insurance benefits. COUNTY will not provide or pay for any liability or medical insurance, retirement contributions or any other benefits for or on behalf of CONSULTANT or any of its officers, employees or other agents.
- E. CONSULTANT shall be responsible for the professional quality, technical accuracy, timely completion, and coordination of all services furnished by CONSULTANT, its subcontractors and its and their principals, officers, employees and agents under this Contract. In performing the specified services, CONSULTANT shall follow practices consistent with generally accepted professional and technical standards.
- F. It shall be the duty of CONSULTANT to assure that all products of its effort are technically sound and in conformance with all pertinent Federal, State and Local statutes, codes, ordinances, resolutions and other regulations. CONSULTANT shall not produce a work product, which violates or infringes on any copyright or patent rights. CONSULTANT shall, without additional compensation, correct or revise any errors or omissions in its work products. Permitted or required approval by COUNTY of any products or services furnished by CONSULTANT shall not in any way relieve CONSULTANT of responsibility for the professional and technical accuracy and adequacy of its work. COUNTY's review, approval, acceptance, or payment for any of CONSULTANT'S services herein shall not be construed to operate as a waiver of any rights under this Contract or of any cause of action arising out of the performance of this Contract, and CONSULTANT shall be and remain liable in accordance with the terms of this Contract and applicable law for all damages to COUNTY caused by CONSULTANT'S performance or failures to perform under this Contract.
- G. CONSULTANT shall appoint a Project Manager who will manage the performance of services. All of the services specified by this Contract shall be performed by the Project Manager, or by CONSULTANT'S associates and employees under the personal supervision of the Project Manager. Should the Project Manager, or any employee of CONSULTANT be unable to complete his or her responsibility for any reason, CONSULTANT must obtain written approval by COUNTY prior to replacing him or her with another equally qualified person. If CONSULTANT fails to make a required replacement within 30 days, COUNTY may terminate this Contract for default.

- H. CONSULTANT agrees that its officers and employees will cooperate with COUNTY in the performance of services under this Contract and will be available for consultation with COUNTY at such reasonable times with advance notice as to not conflict with their other responsibilities.
- I. CONSULTANT shall follow COUNTY's standard procedures as followed by COUNTY's staff in regard to programming changes; testing; change control; and other similar activities.
- J. CONSULTANT has or will retain such employees, as it may need to perform the services required by this Contract. Such employees shall not be employed by COUNTY.
- K. CONSULTANT agrees to provide the information on the attached Disclosure of Ownership/Principals form prior to any contract award by the Board of County Commissioners.
- L. The rights and remedies of COUNTY provided for under this section are in addition to any other rights and remedies provided by law or under other sections of this Contract.

### **SECTION III: RESPONSIBILITY OF COUNTY**

- A. COUNTY agrees that its officers and employees will cooperate with CONSULTANT in the performance of services under this Contract and will be available for consultation with CONSULTANT at such reasonable times with advance notice as to not conflict with their other responsibilities.
- B. The services performed by CONSULTANT under this Contract shall be subject to review for compliance with the terms of this Contract by COUNTY's representative, Heather Green, Management Analyst, (702) 455-1605, or the Director of Department of Comprehensive Planning's designee. COUNTY may delegate any or all of his responsibilities under this Contract to appropriate staff members, and shall so inform CONSULTANT by written notice before the effective date of each such delegation.
- C. The review comments of COUNTY may be reported in writing as needed to CONSULTANT. It is understood that COUNTY will review comments do not relieve CONSULTANT from the responsibility for the professional and technical accuracy of all work delivered under this Contract.
- D. COUNTY will, without charge, furnish to or make available for examination or use by CONSULTANT as it may request, any data which COUNTY has available, including as examples only and not as a limitation:
  - 1. Copies of reports, surveys, records, and other pertinent documents
  - 2. Copies of previously prepared reports, job specifications, surveys, records, ordinances, codes, regulations, other documents, and information related to the services specified by this Contract.CONSULTANT shall return any original data provided by COUNTY.
- E. COUNTY will assist CONSULTANT in obtaining data on documents from public officers or agencies, and from private citizens and business firms, whenever such material is necessary for the completion of the services specified by this Contract.
- F. CONSULTANT shall not be responsible for accuracy of information or data supplied by COUNTY or other sources to the extent such information or data would be relied upon by a reasonably prudent CONSULTANT.

### **SECTION IV: SCOPE OF WORK**

CONSULTANT shall provide goods and/or services set forth in Exhibit A, Scope of Work attached hereto as project actions.

**SECTION V: CHANGES TO SCOPE OF WORK**

- A. COUNTY may at any time, by written order and with the written consent of CONSULTANT, make changes to the Exhibit A, Scope of Work of this Contract. Requests for changes to the Exhibit A, Scope of Work made by CONSULTANT must be made in writing and adhere to COUNTY procedures, accessible on the following website:  
<http://www.clarkcountynv.gov/depts/dcp/pages/ProjectHandbook.aspx>  
Requests are subject to approval by COUNTY. If approved, these changes will be incorporated into this Contract through a written amendment.
- B. No services for which an additional compensation will be charged by CONSULTANT shall be furnished without the written authorization of COUNTY.

**SECTION VI: PRICE, PAYMENT, AND SUBMISSION OF INVOICE**

- A. COUNTY agrees to pay CONSULTANT for the performance of services described in Exhibit A, Scope of Work, up to the firm fixed amount of \$PROJECT AMOUNT including all travel, lodging, meals, equipment and miscellaneous expenses.
- B. CONSULTANT shall be entitled to periodic payments for work completed in accordance with the completion of tasks indicated in Appendix 1, Milestone/Deliverable/Invoicing Schedule Table.
- C. Payments
  - 1. COUNTY, at its discretion, may not approve or issue payment on invoices if CONSULTANT fails to provide the following information required on each invoice:
    - a. The title of the project as stated in Exhibit A, Scope of Work, COUNTY's Contract Number, Project Number, Purchase Order Number, the Invoice Date, the Invoice Period, the Invoice Number, the Payment Address, and the Funding Source.
    - b. A "BUDGET SUMMARY COMPARISON", which outlines the total amount CONSULTANT was awarded, the amount expended to date, the current invoice amount, the total expenditures, and the remaining award balance must accompany all invoices.
  - 2. CONSULTANT shall be entitled to progress payments in accordance with the completion of tasks indicated in Exhibit A, Scope of Work.
  - 3. Payment of invoices will be made within thirty (30) calendar days after receipt of an accurate invoice that has been reviewed and approved by COUNTY.
  - 4. COUNTY will notify CONSULTANT in writing within fourteen (14) calendar days of any disputed amount included on the invoice. Upon receipt of an acceptable invoice, COUNTY will make payment of the undisputed amount in accordance with paragraph C.3, above. Upon resolution of the disputed amount by COUNTY and CONSULTANT, payment will be made in accordance with paragraph C.3, above.
  - 5. No penalty will be imposed on COUNTY if COUNTY fails to pay CONSULTANT within thirty (30) calendar days after receipt of a properly documented invoice, and COUNTY will receive no discount for payment within that period. In the event that legal action is taken by COUNTY or CONSULTANT based on a disputed payment, the prevailing party shall be entitled to reasonable attorneys' fees and costs subject to COUNTY available unencumbered budgeted appropriations for the PROJECT.

6. COUNTY will subtract from any payment made to CONSULTANT all damages, costs and expenses caused by CONSULTANT'S negligence, resulting from or arising out of errors or omissions in CONSULTANT'S work products, which have not been previously paid to CONSULTANT.
7. Invoices shall be submitted via email to dcp@clarkcountynv.gov, or by United States mail or commercial courier/parcel service addressed as follows:

Sr. Financial Office Specialist, Desert Conservation Program  
Clark County Department of Comprehensive Planning  
500 South Grand Central Parkway  
Las Vegas, NV 89106
8. CONSULTANT shall submit an invoice within thirty (30) calendar days after the end of each calendar quarter in which CONSULTANT performs services, provides deliverables, and/or meets milestones, as agreed upon in Exhibit A, Scope of Work, unless COUNTY and CONSULTANT agree upon a different timetable in writing. However, without exception, CONSULTANT shall submit any and all invoices within six (6) months from the date CONSULTANT performs services, provides deliverables, and/or meets milestones, as agreed upon in Exhibit A, Scope of Work.
9. COUNTY will provide payment within thirty (30) calendar days after receipt of an acceptable invoice including required documentation. Upon request by COUNTY, CONSULTANT shall provide justification of expenses within thirty (30) calendar days. COUNTY shall not provide payment on any invoice CONSULTANT submits after six (6) months from the date CONSULTANT performs services, provides deliverables, and/or meets milestones, as agreed upon in Exhibit A, Scope of Work.
10. CONSULTANT must notify COUNTY in writing of any changes to CONSULTANT's remit payment address or other pertinent information that may affect issuance of payment, and allow thirty (30) calendar days for the change to be processed.

D. COUNTY's Fiscal Limitations

1. The content of this section shall apply to the entire Contract and shall take precedence over any conflicting terms and conditions, and shall limit COUNTY's financial responsibility as indicated in this section.
2. Notwithstanding any other provisions of this Contract, this Contract shall terminate and COUNTY's obligations under it shall be extinguished at the end of the fiscal year in which COUNTY fails to appropriate monies for the ensuing fiscal year sufficient for the payment of all amounts which will then become due.
3. COUNTY's total liability for all charges for services, which may become due under this Contract, is limited to the total maximum expenditure(s) authorized in COUNTY's purchase order(s) to CONSULTANT.

**SECTION VII: SUBCONTRACTOR**

- A. Services specified by this Contract shall not be subcontracted by CONSULTANT, without prior written approval of COUNTY.
- B. Approval by COUNTY of CONSULTANT'S request to subcontract or acceptance of or payment for subcontracted work by COUNTY shall not in any way relieve CONSULTANT of responsibility for the

professional and technical accuracy and adequacy of the work. CONSULTANT shall be and remain liable for all damages to COUNTY caused by negligent performance or non-performance of work under this Contract by CONSULTANT'S subcontractor or its sub-subcontractor.

- C. The compensation due under Section VI shall not be affected by COUNTY's approval of CONSULTANT'S request to subcontract.

### **SECTION VIII: MISCELLANEOUS PROVISIONS**

A. Time Schedule

1. Time is of the essence for this Contract.
2. CONSULTANT shall complete the PROJECT in accordance with the Milestone/Deliverable/Invoicing Schedule Table.
3. If CONSULTANT'S performance of services is delayed or if CONSULTANT's sequence of tasks is changed, CONSULTANT shall notify COUNTY in writing of the reasons for the delay and prepare a revised schedule for performance of services. The revised schedule is subject to COUNTY's written approval.

B. Suspension

COUNTY may suspend performance by CONSULTANT under this Contract for such period of time as COUNTY, at its sole discretion, may prescribe by providing written notice to CONSULTANT at least ten (10) working days prior to the date on which COUNTY wishes to suspend. Upon such suspension, COUNTY will pay CONSULTANT its compensation, based on the percentage of the PROJECT completed and earned until the effective date of suspension, less all previous payments. CONSULTANT shall not perform further work under this Contract after the effective date of suspension until receipt of written notice from COUNTY to resume performance. In the event COUNTY suspends performance by CONSULTANT for any cause other than the error or omission of CONSULTANT, for an aggregate period in excess of thirty (30) days, CONSULTANT shall be entitled to an equitable adjustment of the compensation payable to CONSULTANT under this Contract to reimburse CONSULTANT for additional costs occasioned as a result of such suspension of performance by COUNTY based on appropriated funds and approval by COUNTY.

C. Termination

1. This Contract may be terminated in whole or in part by either party in the event of substantial failure of the other party to fulfill its obligations under this Contract through no fault of the terminating party; but only after the other party is given:
  - a. Not less than thirty (30) calendar days written notice of intent to terminate; and
  - b. An opportunity for consultation with the terminating party prior to termination.
2. This Contract may be terminated in whole or in part by COUNTY for its convenience; but only after CONSULTANT is given not less than thirty (30) calendar days written notice of intent to terminate.
3. If termination for default is effected by COUNTY, COUNTY will pay CONSULTANT that portion of the compensation which has been earned as of the effective date of termination but:
  - a. No amount shall be allowed for anticipated profit on performed or unperformed services or other work; and

- b. Any payment due to CONSULTANT at the time of termination may be adjusted to the extent of any additional costs occasioned to COUNTY by reason of CONSULTANT'S default.
4. If termination is for COUNTY's convenience, COUNTY will pay CONSULTANT that portion of the compensation which has been earned as of the effective date of termination but no amount shall be allowed for anticipated profit on performed or unperformed services or other work.
5. Upon receipt or delivery by CONSULTANT of a termination notice, CONSULTANT shall promptly discontinue all services affected (unless the notice directs otherwise) and deliver or otherwise make available to COUNTY, copies of all deliverables as provided in Exhibit A, Scope of Work.
6. Upon termination, COUNTY may take over the work and prosecute the same to completion by contract with another party or otherwise. In the event CONSULTANT shall cease conducting business, COUNTY shall have the right to make an unsolicited offer of employment to any employees of CONSULTANT assigned to the performance of this Contract.
7. If after termination for failure of CONSULTANT to fulfill contractual obligations it is determined that CONSULTANT has not so failed, the termination shall be deemed to have been effected for the convenience of COUNTY.
8. The rights and remedies of COUNTY and CONSULTANT provided in this section are in addition to any other rights and remedies provided by law or under this Contract.
9. Neither party shall be considered in default in the performance of its obligations hereunder, nor any of them, to the extent that performance of such obligations, nor any of them, is prevented or delayed by any cause, existing or future, which is beyond the reasonable control of such party. Delays arising from the actions or inactions of one or more of CONSULTANT'S principals, officers, employees, agents, subcontractors, vendors or suppliers are expressly recognized to be within CONSULTANT'S control.

D. Gratuities

1. COUNTY may, by written notice to CONSULTANT, terminate this Contract if it is found after notice and hearing by COUNTY that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by CONSULTANT or any agent or representative of CONSULTANT to any officer or employee of COUNTY with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or making of any determinations with respect to the performance of this Contract.
2. In the event this Contract is terminated as provided in paragraph 1 hereof, COUNTY shall be entitled:
  - a. To pursue the same remedies against CONSULTANT as it could pursue in the event of a breach of this Contract by CONSULTANT; and
  - b. As a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by COUNTY) which shall be not less than three (3) nor more than ten (10) times the costs incurred by CONSULTANT in providing any such gratuities to any such officer or employee.
3. The rights and remedies of COUNTY provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this Contract.

E. Insurance

1. CONSULTANT shall obtain and maintain the insurance coverages required in Exhibit B, Insurance Requirements, incorporated herein by this reference. CONSULTANT shall comply with the terms and conditions set forth in Exhibit B, Insurance Requirements, and shall include the cost of the insurance coverages in their prices.
2. If CONSULTANT fails to maintain any of the insurance coverage required herein, COUNTY may withhold payment, order CONSULTANT to stop the work, declare CONSULTANT in breach, suspend or terminate Contract.

F. Indemnity

CONSULTANT does hereby agree to defend, indemnify, and hold harmless COUNTY and the employees, officers and agents of COUNTY from any liabilities, damages, losses, claims, actions or proceedings, including, without limitation, reasonable attorneys' fees, that are caused by the negligence, errors, omissions, recklessness or intentional misconduct of CONSULTANT or the employees or agents of CONSULTANT in the performance of this Contract.

G. Subcontractor Information

CONSULTANT shall provide a list of the Minority-Owned Business Enterprise (MBE), Women-Owned Business Enterprise (WBE), Physically-Challenged Business Enterprise (PBE), Small Business Enterprise (SBE), Veteran Business Enterprise (VET), Disabled Veteran Business Enterprise (DVET), and Emerging Small Business Enterprise (ESB) subcontractors for this Contract utilizing the attached format Exhibit C, Subcontractor Information. The information provided in Exhibit C, Subcontractor Information, by CONSULTANT is for COUNTY's information only.

H. Audits

The performance of this Contract by CONSULTANT is subject to review by COUNTY to ensure contract compliance. CONSULTANT shall provide COUNTY any and all information requested that relates to the performance of this Contract. All requests for information will be in writing to CONSULTANT. Time is of the essence during the audit process. Failure to provide the information requested within the timeline provided in the written information request may be considered a material breach of contract and be cause for suspension and/or termination of the Contract.

I. Covenant

CONSULTANT covenants that it presently has no interest and that it will not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services required to be performed under this Contract. CONSULTANT further covenants, to its knowledge and ability that in the performance of said services no person having any such interest shall be employed.

J. Assignment

Any attempt by CONSULTANT to assign or otherwise transfer any interest in this Contract without the prior written consent of COUNTY shall be void.

K. Governing Law

Nevada law shall govern the interpretation of this Contract.

L. Confidential Treatment of Information

CONSULTANT shall preserve in strict confidence any information obtained, assembled or prepared in connection with the performance of this Contract.

M. Intellectual Property

1. Original work of authorship in any medium, prepared and originated by CONSULTANT as specifically ordered by COUNTY as part of this Contract, shall be the exclusive property of COUNTY and shall be deemed to be works for hire. COUNTY grants to CONSULTANT a royalty-free perpetual license to copy, use, disclose, and sublicense these items for any lawful purpose without notice to COUNTY.
2. To the extent that the items are deemed not to be works for hire, CONSULTANT assigns to COUNTY all rights, title and interest in the items including works to copyright, and COUNTY grants to CONSULTANT a royalty-free perpetual license to copy, use, disclose, and sublicense the deliverables for any lawful purpose without notice to COUNTY. If such items include items previously developed or copyrighted by CONSULTANT, CONSULTANT hereby grants to COUNTY a royalty-free perpetual license to copy, use, disclose, and sublicense the items for any lawful purpose without notice to CONSULTANT. CONSULTANT warrants that the assignment and/or grant does not infringe upon or violate any trademark, service mark, copyright, patent or other proprietary right of any third party and that CONSULTANT has clear, unencumbered title to the items subject to the assignment and/or grant.

N. ADA Requirements

All work performed or services rendered by CONSULTANT shall comply with the Americans with Disabilities Act standards adopted by Clark County. All facilities built prior to January 26, 1992 must comply with the Uniform Federal Accessibility Standards; and all facilities completed after January 26, 1992 must comply with the Americans with Disabilities Act Accessibility Guidelines.

O. Notice

Except where specifically stated in this Contract, all notices, requests, demands, and other communications (collectively referred to as correspondence), required or permitted pursuant to this Contract shall be made in writing, When sent to CONSULTANT's address described below, correspondence is deemed received immediately if emailed, or within three business days if deposited in the United States mail, first class postage, or commercial carrier:

TO COUNTY: Heather Green, Desert Conservation Program  
Clark County Department of Comprehensive Planning  
500 South Grand Central Parkway  
Las Vegas, NV 89106  
Email: hyg@clarkcountynv.gov

TO CONSULTANT NAME: (CONSULTANT CONTACT AND ADDRESS)  
(NOTE OTHER CONSULTANT CONTACT and CONSULTANT BILLING ADDRESS IF THEY REQUIRE DIFFERENT PEOPLE FOR FISCAL ISSUES VS. PROJECT ISSUES)  
Email:

P. Equipment

For equipment that may be purchased under this Contract, CONSULTANT shall retain title. For equipment with an individual purchase price of \$5,000 (five thousand) or more, the final invoice shall certify the per unit fair market value, including the source or method for determining the value, and the

deduction of any remaining value from the final invoice if applicable. In the case of leased equipment, COUNTY requires a copy of the executed lease Contract within thirty (30) calendar days of its inception. The final invoice shall certify that the lease has been terminated and/or lease costs have been transferred to CONSULTANT funding source.

Q. Data Management

1. CONSULTANT shall submit a data management plan to COUNTY that is compliant with the MSHCP Data Management Development Guidelines, accessible on the following website: <http://www.clarkcountynv.gov/depts/dcp/pages/ProjectHandbook.aspx>. All data will be transmitted to COUNTY and becomes the property of both COUNTY and CONSULTANT. All materials, information, documents, and drawings developed under this Contract are also subject to these conditions, and Section VIII, N, as applicable.
2. COUNTY reserves the right to use the data for various analyses required for programmatic planning and the adaptive management science process.

R. Desert Conservation Program Acknowledgment

COUNTY requires acknowledgement of its support of your activities. COUNTY will notify CONSULTANT in writing of this requirement. The acknowledgement listed in quotation marks below shall be used for all products, publications, presentations, and related media generated in conjunction with the project outlined in Exhibit A, Scope of Work. In instances where use of this statement is not feasible CONSULTANT may adjust the statement or receive a waiver of use, upon written notice to and approval by COUNTY.

*"This work was supported by the Clark County Desert Conservation Program and funded by (ADD: Section 10, as project # (ADD: project number), to further implement or develop the Clark County Multiple Species Habitat Conservation Plan."*

S. Immigration Reform and Control Act

In accordance with the Immigration Reform and Control Act of 1986, CONSULTANT agrees that it will not employ unauthorized aliens in the performance of this Contract.

T. Non-Discrimination/Public Funds

CONSULTANT acknowledges that COUNTY has an obligation to ensure that public funds are not used to subsidize private discrimination. CONSULTANT recognizes that if they or their subcontractors are found guilty by an appropriate authority of refusing to hire or do business with an individual or company due to reasons of race, color, religion, sex, sexual orientation, gender identity or gender expression, age, disability, national origin, or any other protected status, COUNTY may declare CONSULTANT in breach of the Contract, terminate the Contract, and designate CONSULTANT as non-responsible.

U. Severability

If any terms or provisions of the Contract shall be found to be illegal or unenforceable, then such term or provisions shall be deemed stricken and the remaining portions of Contract shall remain in full force and effect.

V. Authority

COUNTY is bound only by COUNTY agents acting within the actual scope of their authority. COUNTY is not bound by actions of one who has apparent authority to act for COUNTY. The acts of COUNTY agents which exceed their contracting authority do not bind COUNTY.

W. Title and Risk of Loss

The title and risk of loss of material or service shall not pass to COUNTY until material is delivered to the specific location, quantities are verified, and the material is inspected for damage or service is completed as specified.

IN WITNESS WHEREOF, the parties have caused this Contract to be executed the day and year first above written.

(CONSULTANT NAME)

By: \_\_\_\_\_  
(AUTHORIZED CONSULTANT REPRESENTATIVE AND TITLE)

Date: \_\_\_\_\_

CLARK COUNTY, NEVADA

By: \_\_\_\_\_  
YOLANDA T. KING  
Chief Financial Officer

Date: \_\_\_\_\_

APPROVED AS TO FORM:

STEVEN B. WOLFSON, District Attorney

By: \_\_\_\_\_  
CATHERINE JORGENSON  
Deputy District Attorney

Date: \_\_\_\_\_

## EXHIBIT A

### SCOPE OF WORK

#### DESERT TORTOISE RANGE-WIDE MONITORING

**A. PROJECT TITLE:** Desert Tortoise Range-Wide Monitoring

**B. PROJECT NUMBER:** To Be Issued Upon Contract Award

**C. PROJECT OVERVIEW:**

The Mojave desert tortoise (*Gopherus agassizii*) is a priority species for conservation in Clark County, Nevada. It is listed as threatened under the Endangered Species Act and is a covered species under the Clark County Multiple Species Habitat Conservation Plan (MSHCP). The recovery program for desert tortoises requires range-wide, long-term monitoring to determine whether recovery goals are met; specifically, population trends within recovery units need to increase for a period of 25 years to warrant delisting. In 1999 the Desert Tortoise Management Oversight Group endorsed the use of line distance sampling to estimate range-wide desert tortoise density.

The COUNTY desires to engage in conservation actions as identified in the Clark County Multiple Species Habitat Conservation Plan (MSHCP), including: monitoring desert tortoise (*Gopherus agassizii*) populations; tracking trends in the status of desert tortoise in Clark County; and furthering the objectives of the U.S. Fish and Wildlife Service's (USFWS) Desert Tortoise Recovery Plan. The purpose of this Request for Proposal (RFP) is to solicit proposals from qualified biological firms to conduct desert tortoise monitoring in the form of line distance sampling across Clark County, Nevada and adjacent areas. The contract term will be from 2016 through 2020.

**D. PROJECT LOCATION(S):**

This project will be conducted throughout desert tortoise habitat within the Eastern Mojave and Northeastern Mojave Recovery Units. Specifically, desert tortoise monitoring will take place in all Tortoise Conservation Areas (TCAs) located within, or partially within, Clark County, Nevada, which include: Piute Valley, Eldorado Valley, Coyote Spring Valley, Mormon Mesa, Gold Butte-Pakoon, Beaver Dam Slope, and the Boulder City Conservation Easement. The Bureau of Land Management, National Park Service, USFWS, and Clark County/Boulder City manage the land in these areas.

**E. PROJECT GOALS AND OBJECTIVES:**

The goals for this project are to: generate three yearly estimates of Mojave desert tortoise population density in each TCA over a five-year period; maintain data quality, accuracy, and precision of density estimates; and reduce variance and observer (monitor) errors during data collection.

*Objectives:*

- Crews will apply the search technique as trained so that tortoise detection probabilities and densities are accurately estimated.
- Each team will complete transects in the prescribed fashion within specified time limits, including start time and minimum total time.
- Each crew member will accurately and precisely measure the local bearing of a transect, and the azimuth and distance from the point of initial observation to a tortoise/carcass.
- Crews will correctly implement line distance sampling protocols for desert tortoises on standard transects.
- Crews will appropriately implement techniques to walk non-standard transects when obstacles prevent completion of planned standard transects.



The primary goal of G<sub>0</sub> training is successful implementation of the G<sub>0</sub> protocol by telemetry crews. This includes correct use of telemetry equipment, understanding G<sub>0</sub> data collection fields, collecting observations of as many radio-equipped tortoises as possible during the day, observing the appropriate focal population for the transects being sampled, and conducting observations during a window of time that overlaps the day's transect time window for each sampling area.

At a G<sub>0</sub> site, monitors will locate and record a minimum of 30 observations per day, and will begin prior to and end after line distance sampling during the same day. G<sub>0</sub> monitors will coordinate with their team leaders to schedule their activities to coincide with line distance transect data collection. Tortoises with transmitters must be located on a monthly basis in the non-survey season to confirm their well-being and replace 24-month transmitters as needed. There are three sites in Clark County with transmittered tortoises. More detailed information on line distance sampling can be found in the Desert Tortoise Monitoring Handbook located at:

[http://www.fws.gov/nevada/desert\\_tortoise/dtro/dtro\\_monitor.html](http://www.fws.gov/nevada/desert_tortoise/dtro/dtro_monitor.html). Specific equipment will be required for G<sub>0</sub> surveys including Trimble Juno GPS units with Pendragon software, transmitters, radio receiver and antenna. A full list of equipment needed for G<sub>0</sub> surveys is located in Attachment 1.

4. Data Management. Data management for the entire project is setup in three phases. The PROPOSER will be responsible for portions of phase 1, which amounts to collection of data and delivery of clean, complete data and records. Some materials are provided to aid in data collection, verification, and validation, so that the PROPOSER's tasks include the following:

- Synching handheld Junos with the associated parent Pendragon Collection database, then importing the data from the populated Collection databases into the Correction databases.
- Running scripts provided by USFWS with the Correction databases to perform the required automated checks, which are designed to identify common errors that can be best corrected by the survey organization. It is the survey organization's responsibility to perform an initial quality assurance/quality control (QA/QC) review and correct these errors.
- Performing final, non-automated visual checks for errors. Examples of errors include odd times, incomplete fields, fields missing data, etc.
- Making and documenting corrections in an Errors table. Corrections to records should be clearly stated and include the fields and values that were changed. Unusual entries that are not corrected should also be documented in the violations table.
- Responding to and making corrections identified in the USFWS interim assessments of their data. The interim assessments are not automated and it is difficult to identify in advance all the possible corrections that may be required. However, examples from previous years include: incorrect times; sex record M or F, but comment field indicating uncertainty; mixing observers between teams; inconsistency in recording of tag numbers; G<sub>0</sub> tortoises that are scored "not visible" but behavior is not "unknown"; incorrect numeric entries into text fields that cannot therefore limit numeric entry errors (e.g. waypoint "21" recorded as waypoint "21."); duplicate waypoints; etc.
- Delivering complete Phase I products (Collection and Correction databases for training lines, transects, and G<sub>0</sub>), for the next phase of data processing. Data collection and correction must be completed by survey organizations and delivered to USFWS and Mojave Desert Ecosystem Program (MDEP), which provides independent review of the data and begins processing data from Clark County and elsewhere in the range of the Mojave desert tortoise.

A draft of Phase I of the data management plan can be found in Attachment 3 for more detailed information. The updated data management plan will be supplied at the yearly kick-off meeting. The yearly data management plan will feature minor revisions that should not change the PROPOSER's work load for this project.

#### **G. STAFFING AND EQUIPMENT:**

PROPOSER shall identify the key staff that will be assigned to this project, which should include, at a minimum, project manager and data manager. PROPOSER shall inform COUNTY of all changes in project staff. This contract scope of work will be based on staffing levels submitted in the proposal. If a change in staffing levels affects PROPOSER's ability to provide deliverables per the contract deliverable schedule, PROPOSER shall pursue a request for an amendment to the contract. We anticipate that this project will require a minimum of 20 field employees during the first year and 12 field employees each of the following 4 years. The number of field employees may vary due to the uncertainty of the Gold Butte surveys.

PROPOSER will be responsible for obtaining all equipment listed in Attachment 1.

**PERMITS & PROCEDURES:** PROPOSER must either obtain a permit from USFWS or be placed on the USFWS recovery permit for this project after successfully completing the training. PROPOSER must also obtain a Scientific Collection Permit from the Nevada Department of Wildlife (NDOW) or other permitting agency where appropriate prior to commencing field work.

## **H. PROJECT SCHEDULE, MILESTONES AND DELIVERABLES:**

PROPOSER will complete all deliverables and meet all milestones per the schedule listed in Exhibit A, Attachment 4, Milestone/Deliverable/Invoicing Schedule Table. A milestone is a reference point marking a major event in the project and will be used to monitor the project's progress. A deliverable is a tangible and measurable result, outcome, or item that must be produced to complete a project or a part of a project.

### **Description of Deliverables and Milestones**

1. Contract Award and Mobilization. COUNTY will issue notice of award in writing, and PROPOSER may begin work.
2. Project Kick-off Meeting. This meeting shall be conducted in accordance with the date in Attachment 4, Milestone/Deliverable/Invoicing Schedule Table. PROPOSER's Project Manager shall attend.
3. Training. PROPOSER staff shall attend a mandatory 2 week training class on the project-specific protocols prior to the initiation of data collection. All proposed project personnel, including all backup personnel, must attend. This training will be held at the beginning of each year if necessary.
4. Start Field Work. PROPOSER shall initiate field work on or before the corresponding date listed in Attachment 4 of Exhibit A.
5. Digital Data Deliverables. Digital data deliverables may include: the raw (.sff), differentially corrected (.cor), Pendragon (.mdb), Access (.mde), and verified (.mdb) files for each field crew; data sheets scanned to .pdf format at no less than 150 dots per inch resolution with the setting of halftone black and white; and photographs. Each field day's files shall be organized by crew and uploaded to a file transfer protocol (FTP) site that is available to the COUNTY. Each day's GPS data shall be downloaded, differentially corrected, and exported to .mdb format by PROPOSER at the conclusion of each week. If needed daily deliverables will be required at the COUNTY'S discretion.
6. Completion of Gold Butte Surveys. PROPOSER shall finish Gold Butte surveys on or before the corresponding date listed in Attachment 4 of Exhibit A. In Years with this deliverable it is contingent on obtaining approval from BLM to access the area. BLM may restrict access to this area due to safety concerns. If access is restricted the deliverable and associated money will be rolled into the following year.
7. Completion of Field Work. PROPOSER shall finish field work on or before the corresponding date listed in Attachment 4 of Exhibit A.
8. Quarterly Progress Reports. These reports shall be submitted electronically to COUNTY on or before January 5, April 5, July 5, and October 5 of each calendar year for the term of this project. The format is provided on the following website: <http://www.clarkcountynv.gov/depts/dcp/Pages/ProjectHandbook.aspx>. COUNTY reserves the right to edit these reports for grammar and accuracy for posting to a public website.
9. Receipt Submittal. Receipts for any and all equipment purchase(s) with an individual purchase price of \$5,000 or more shall be submitted with any invoices. If items are valued at \$5,000 or more but less than \$5,000 of COUNTY funds are used, receipts shall be provided as well as proof of matching funds.
10. Biennium Progress Summary Report. This report shall be submitted on June 30th of each odd-numbered year and at the completion of the project. The report format is provided on the following website: <http://www.clarkcountynv.gov/depts/dcp/Pages/ProjectHandbook.aspx>. COUNTY reserves the right to edit these reports for grammar and accuracy for publication in the Biennium Progress Report.
11. Annual Project Review Presentation. If requested, PROPOSER will prepare and present an Annual Project Review Presentation to representatives of the MSHCP's Adaptive Management Program in each year of the contract term. Dates and locations to be determined by COUNTY. The format for the annual project review presentation is an approximately 20-minute oral presentation that contains the following information:
  - a. Title of project,
  - b. A brief summary of the project's progress and findings,
  - c. A cumulative summary of the project's progress to date, which you may craft using the materials you have already submitted to the Desert Conservation Program in previous quarterly reports, and

- d. A brief summary of the work plan for the remainder of the project, discussing any changes in approach that have been adopted to address issues or barriers to progress.

Copies of all presentation materials will be provided to COUNTY prior to the start of the presentation.

12. Annual and Final Report. This report will be submitted at the completion of the project in the format provided on the following website: <http://www.clarkcountynv.gov/depts/dcp/Pages/ProjectHandbook.aspx>. Report shall include a summary of activities performed during the project including a breakdown by month of the number of calls, disposition of calls, pickups, size and type of tortoises picked up and statistics on outreach sessions.
13. Annual and Final Project Data. GIS data and aspatial project data shall be submitted in the format described in the approved Data Management Plan deliverable for this project.
14. End of Season Debriefing Meeting. Within ten days of the final data deliverable a debriefing meeting will be held to go over any issues that occurred during the field season, to discuss lessons learned, and discuss any changes that need to be made before the next field season. This meeting will include all members of the field team, QA/QC team, and the project manager.
15. Final Project Review Summary and Project Claim Release. This form will be submitted at the completion of the project in the format provided on the following website: <http://www.clarkcountynv.gov/depts/dcp/pages/ProjectHandbook.aspx> document title "DCP Final Project Review Summary Format".

#### **I. DOCUMENT SUBMITTAL:**

All deliverables will be submitted via email to: [dcp@clarkcountynv.gov](mailto:dcp@clarkcountynv.gov) unless otherwise specified. Deliverables submitted electronically may not exceed 30MB file size.

If submitting a document in a format other than Microsoft Word, Microsoft Excel, Microsoft PowerPoint, or Adobe Acrobat, PROPOSER will need to contact COUNTY Project Manager to determine if the software is acceptable and if the document can be submitted via email.

All deliverables will need to be accompanied by a Deliverable Transmittal Form (DTF). PROPOSER will be responsible for completing the 'Contractor/Agency section' of the DTF. The form may be found at: <http://www.clarkcountynv.gov/depts/dcp/pages/ProjectHandbook.aspx> document title "DCP Deliverable Transmittal Form".

If PROPOSER is unable to submit deliverables via email, and COUNTY Project Manager has agreed, then deliverables may be submitted via U.S. mail or commercial courier or parcel service. Only one deliverable should be submitted per disk and PROPOSER should ensure that each disk is labeled with the project title and project number listed in this Scope of Work.

Deliverables submitted via U.S. mail or commercial courier or parcel service should be mailed to the following address:

Deliverable Monitor, Desert Conservation Program  
Clark County Department of Comprehensive Planning  
Clark County Government Center  
500 So. Grand Central Parkway / 1<sup>st</sup> Floor  
Las Vegas, NV 89106

#### **J. INVOICING SCHEDULE AND REQUIREMENTS:**

PROPOSER will invoice COUNTY *only* upon submission and acceptance of deliverables and completion of milestones.

It is the responsibility of PROPOSER to ensure all deliverables for the invoice period have been delivered and accepted and all milestones have been completed **before submitting an invoice**. PROPOSER will be asked to cite the deliverable and/or milestone number being invoiced.

COUNTY, at its discretion, may not approve or issue payment on invoices if PROPOSER fails to provide the following information required on each invoice:

- a. The Title of the Project as stated in this Scope of Work, Project Number, Deliverable and/or Milestone Number being invoiced, Purchase Order Number, the Invoice Date, the Invoice Period, the Invoice Number, and the Payment Address.

- b. A "BUDGET SUMMARY COMPARISON" form, which outlines the total amount PROPOSER was awarded, the amount expended to date, the current invoice amount, the total expenditures, and the remaining award balance will need to accompany all invoices. The Budget Summary Comparison form may be found at:

<http://www.clarkcountynv.gov/depts/dcp/pages/ProjectHandbook.aspx>

Invoices will be submitted via email to [dcp@clarkcountynv.gov](mailto:dcp@clarkcountynv.gov), or by United States mail or commercial courier/parcel service addressed as follows:

Sr. Financial Office Specialist, Desert Conservation Program  
Clark County Department of Comprehensive Planning  
Clark County Government Center  
500 So. Grand Central Parkway / 1<sup>st</sup> Floor  
Las Vegas, NV 89106

Per NRS 244.250 COUNTY is unable to provide payment on invoices submitted after six (6) months from the date PROPOSER performs services, provides deliverables, and or meets milestones, as agreed upon in this Scope of Work.

**Exhibit A**  
**Attachment 1: Equipment Needed**  
**(supplied by field teams unless otherwise indicated)**

Survey Equipment Needed (Per 2- person Team):

- GPS unit separate from Trimble Juno (below) with 3 meter accuracy
- Trimble Juno with Pendragon Software (supplied by USFWS)
- 25-meter Dragline
- 50-meter tape reel
- Calipers for measuring midline carapace length
- 2 12-cubic centimeter (cc) oral syringes for rehydrating tortoises
- 2 mirrors for inspecting burrows
- Two-way radio (or some form of communication among surveyors, e.g., cell phone)
- Thermometer
- Enclosed clipboard
- Paper datasheets
- Water-proof-ink pens
- 5-minute epoxy
- Toothbrush as part of disinfection materials
- Card stock for mixing epoxy
- Latex gloves
- 125-milliliter wide-mouth Nalgene bottle of prepared Trifectant or Chlorhexidane (disinfectant)
- Cotton swabs
- Toothpicks for mixing epoxy
- Garbage bags for containing disposable contaminated material
- Hand sanitizer
- Alcohol swabs
- Batteries
- Camera
- Identification tags (provided by USFWS)
- Small scissors for preparing ID tags
- 2 Compasses

Radio Telemetry Equipment Needed (Per Person)

- GPS
- Trimble Juno with Pendragon software
- Two-way radio (or some form of communication among surveyors, e.g., cell phone)
- Charged receiver
- Yagi antenna
- 2 Coaxial cables
- Sufficient replacement batteries
- A list of past known locations and frequencies for each tortoise
- Mirror
- Compass
- 12 cc oral syringe
- Paper datasheets
- Water-proof-ink writing implements
- Safety equipment
- Replacement transmitters

**Exhibit A**  
**Attachment 2: Survey Area**

Table 1. Shows the total number of transects that have been created within each TCA, as well as the number of those units that will be selected at random each year of the study. The remaining transects will serve as alternatives in case selected transects are determined unwalkable.

	Total Transects in Unit	2016	2017	2018	2019	2020
Beaver Dam Slope	95	28	28	0	28	0
Coyote Springs Valley	127	54	0	54	54	0
Eldorado Valley	131	90	90	0	90	0
Gold Butte-Pakoon	215	72	0	72	0	72
Mormon Mesa	105	42	0	42	0	42
Piute Valley	121	51	51	0	0	51
Total	794	337	169	168	172	165

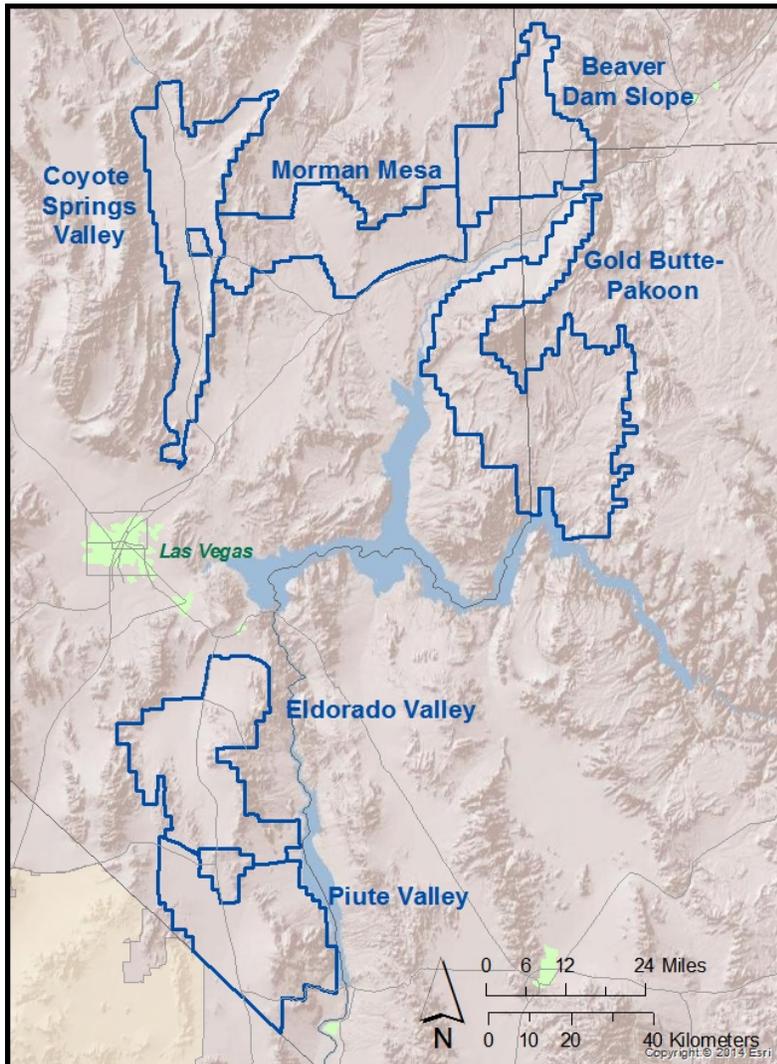


Figure 1. Map of the project area. Areas to be surveyed under this program are outlined and labeled in blue and include BLM ACECs and adjacent lands with management priorities to recover the Mojave desert tortoise (USFWS critical habitat and National Wildlife Refuge lands).

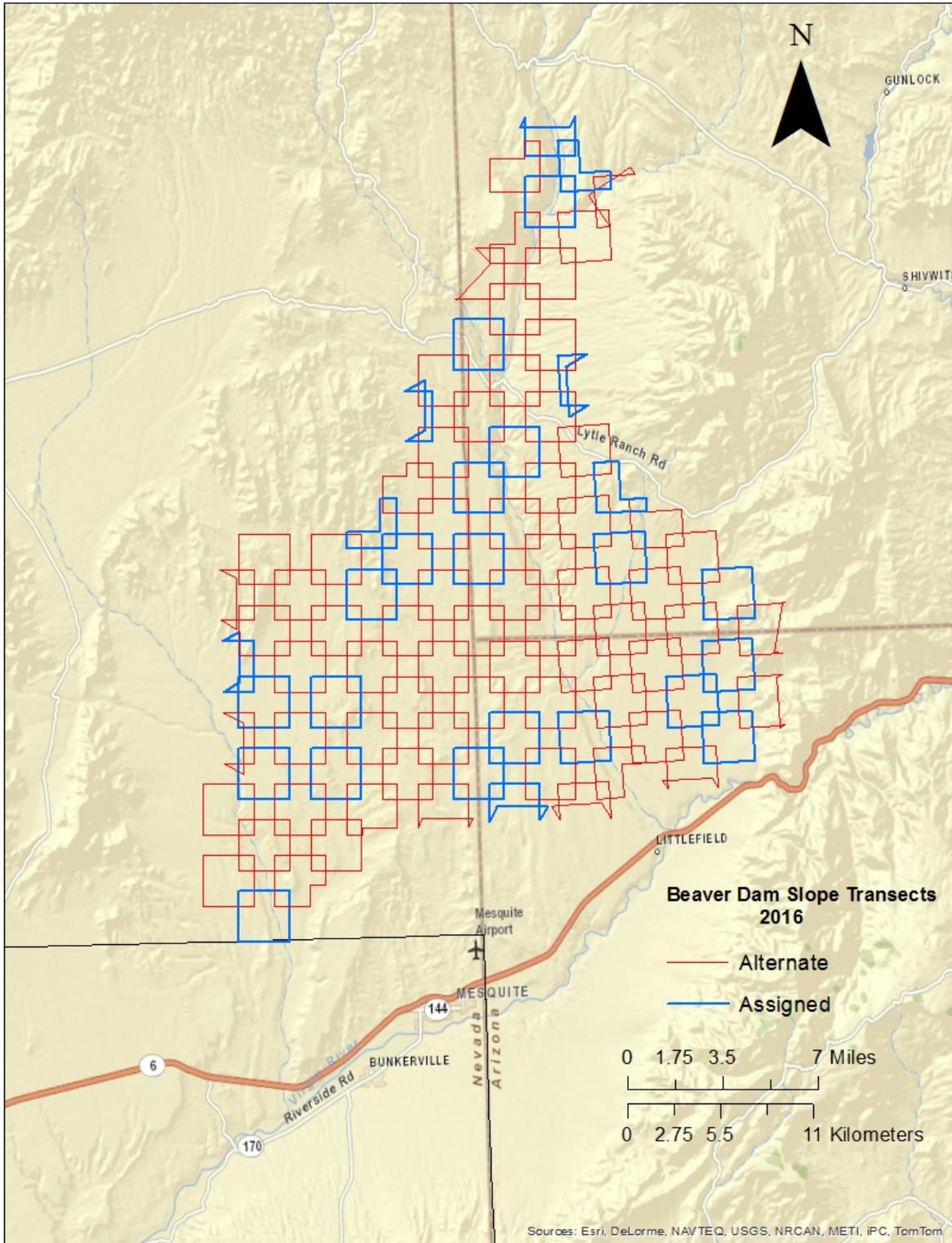


Figure 2. Map of the Beaver Dam Slope area. Blue transects are random transects selected to survey in 2016 with red transects being alternates in case an assigned transect is unwalkable. A random selection from all transects (red and blue) will be made for work in 2017 and 2019.

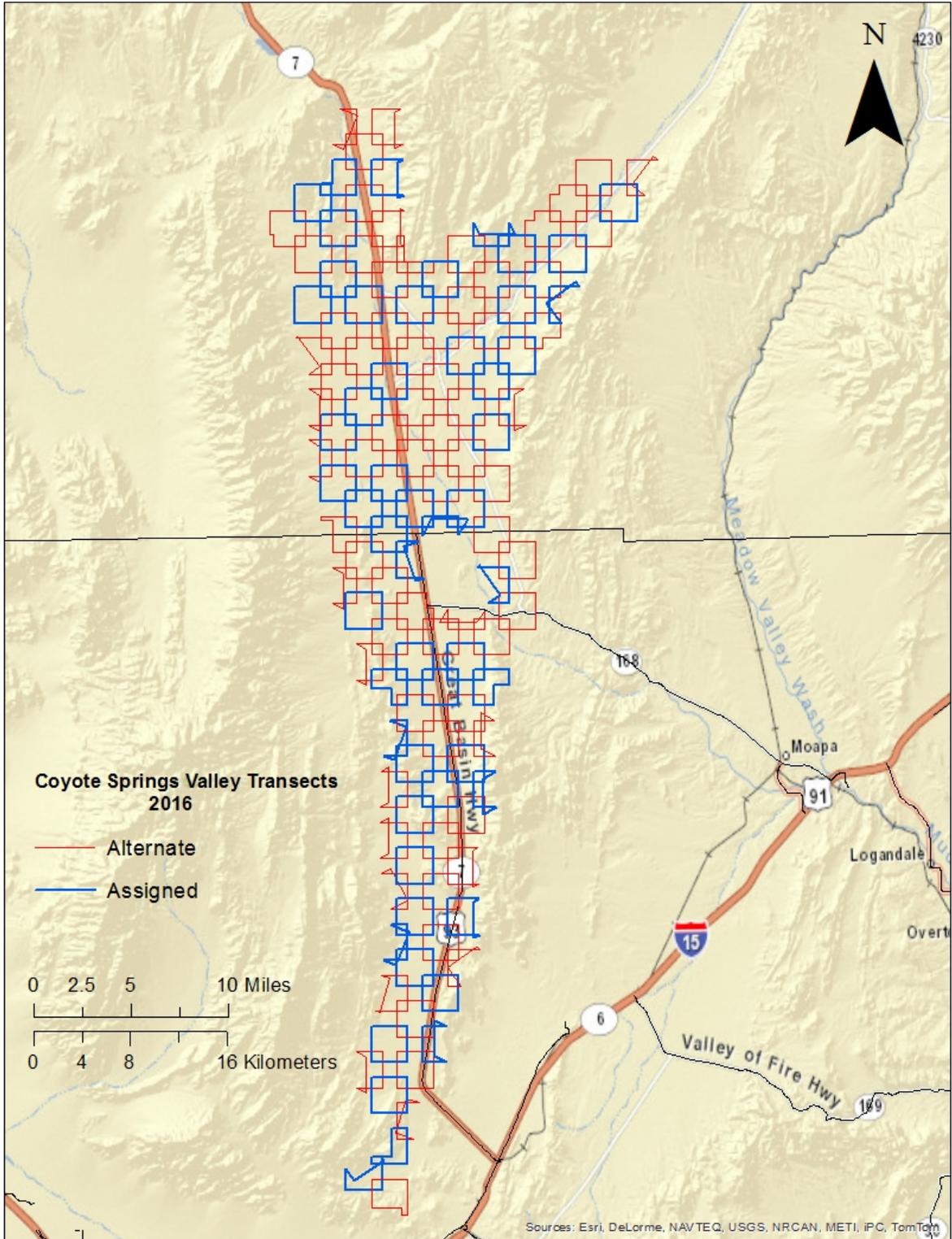


Figure 3. Map of the Coyote Springs Valley area. Blue transects are random transects selected to survey in 2016 with red transects serving as alternates in case an assigned transect is unwalkable. A random selection from all transects (red and blue) will be made for work in 2018 and 2019.

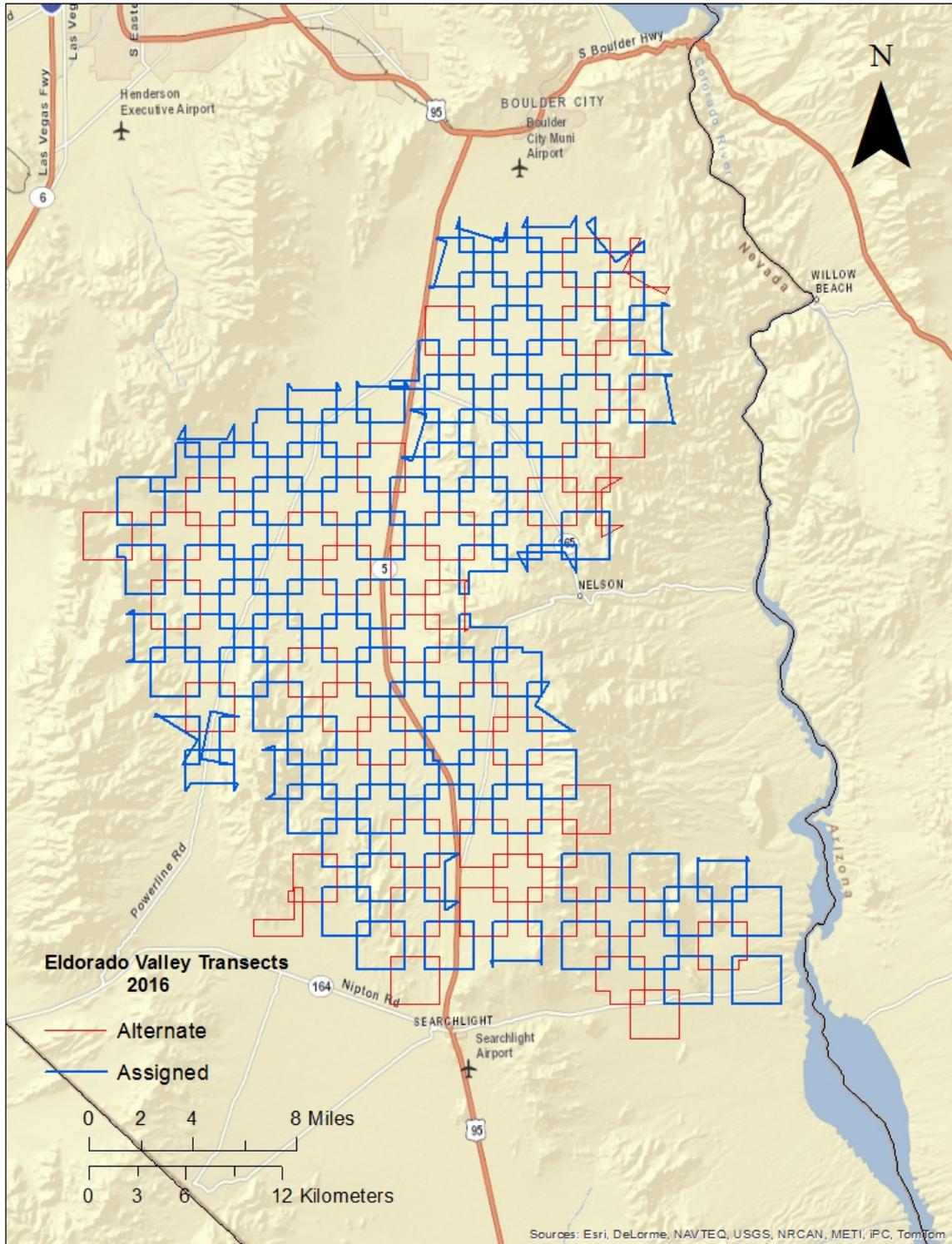


Figure 4. Map of the Eldorado Valley area. Blue transects are random transects selected to survey in 2016 with red transects serving as alternates in case an assigned transect is unwalkable. A random selection from all transects (red and blue) will be made for work in 2017 and 2019.

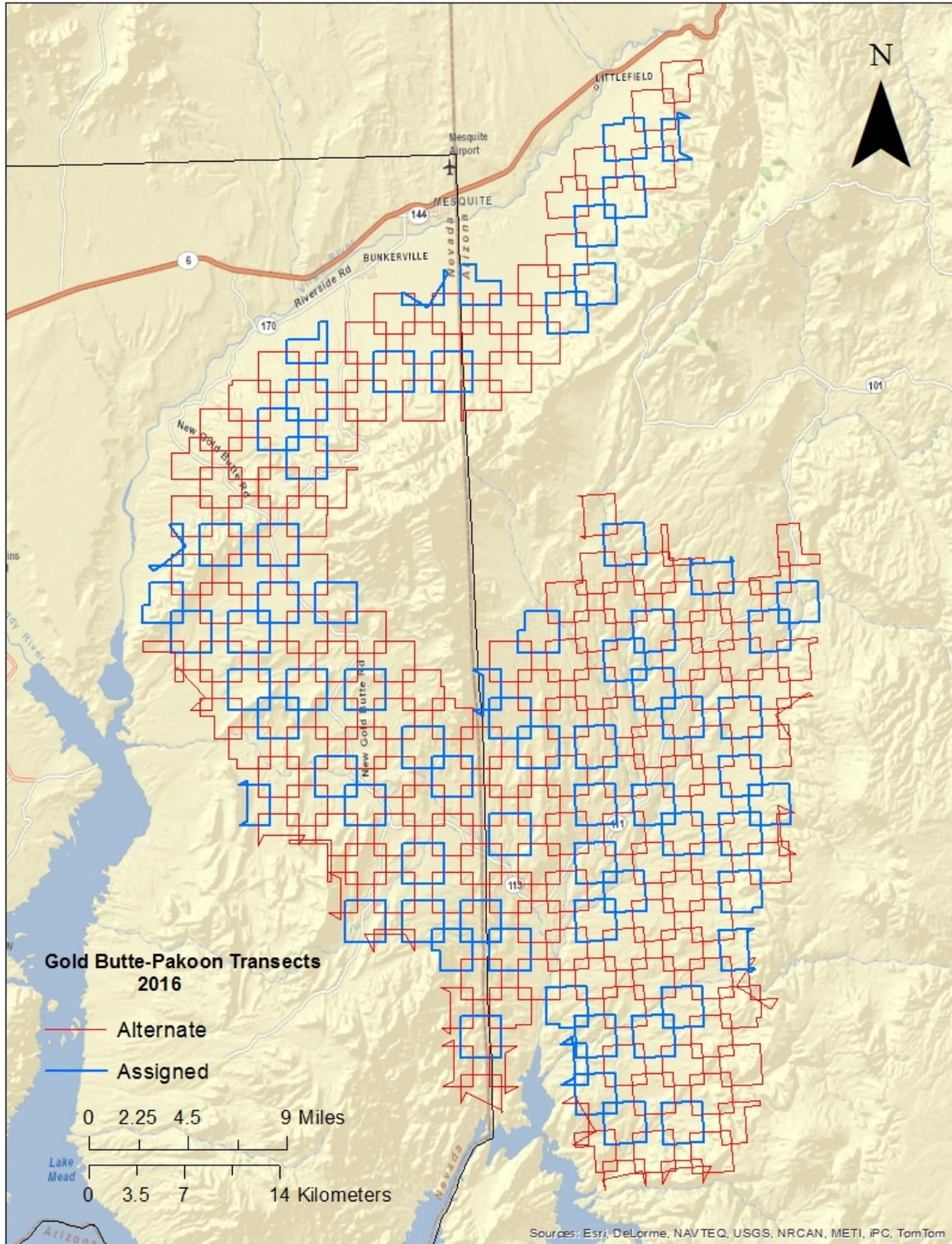


Figure 5. Map of the Gold Butte-Pakoon area. Blue transects are random transects selected to survey in 2016 with red transects serving as alternates in case an assigned transect is unwalkable. A random selection from all transects (red and blue) will be made for work in 2018 and 2020.

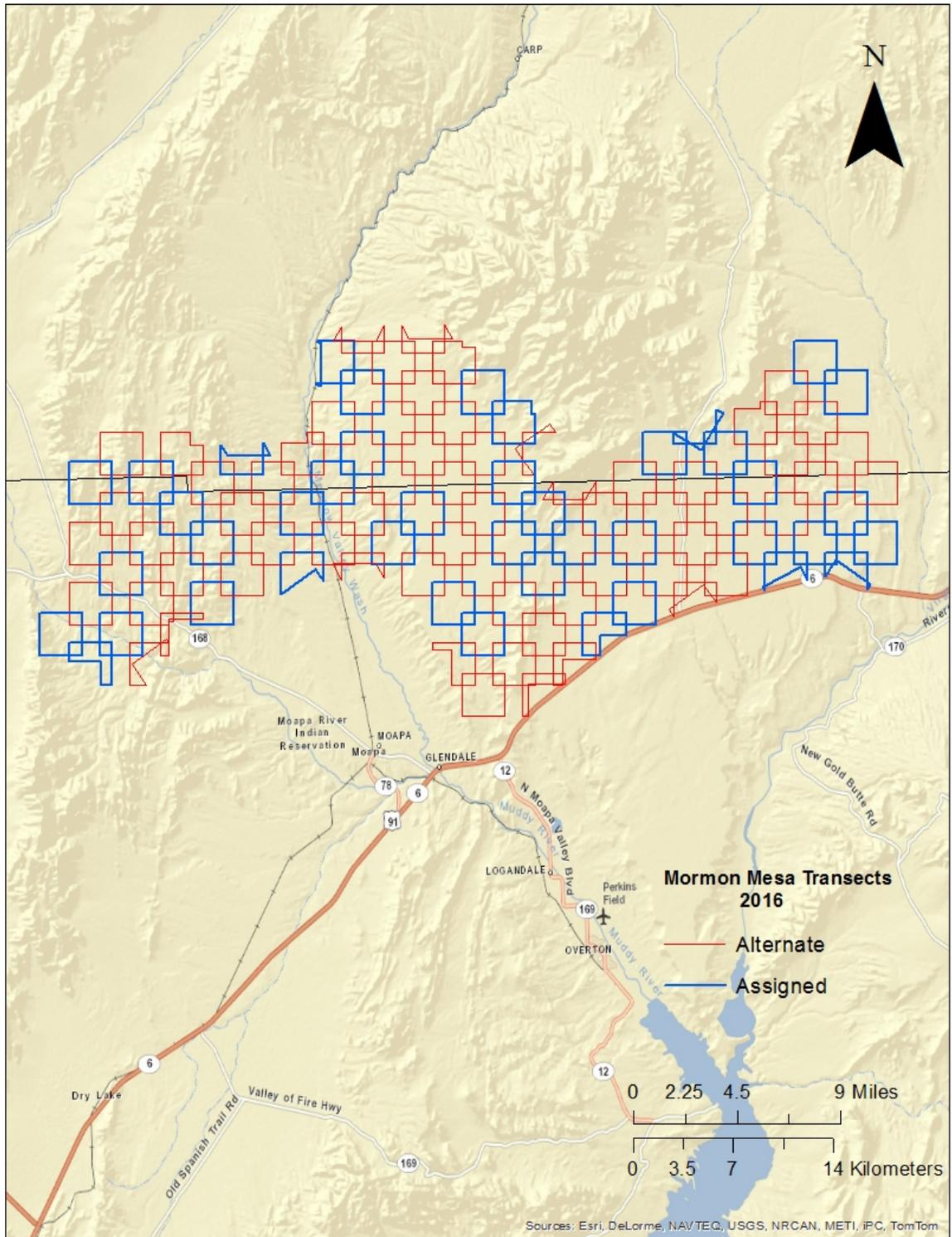


Figure 6. Map of the Mormon Mesa area. Blue transects are random transects selected to survey in 2016 with red transects serving as alternates in case an assigned transect is unwalkable. A random selection from all transects (red and blue) will be made for work in 2018 and 2020.

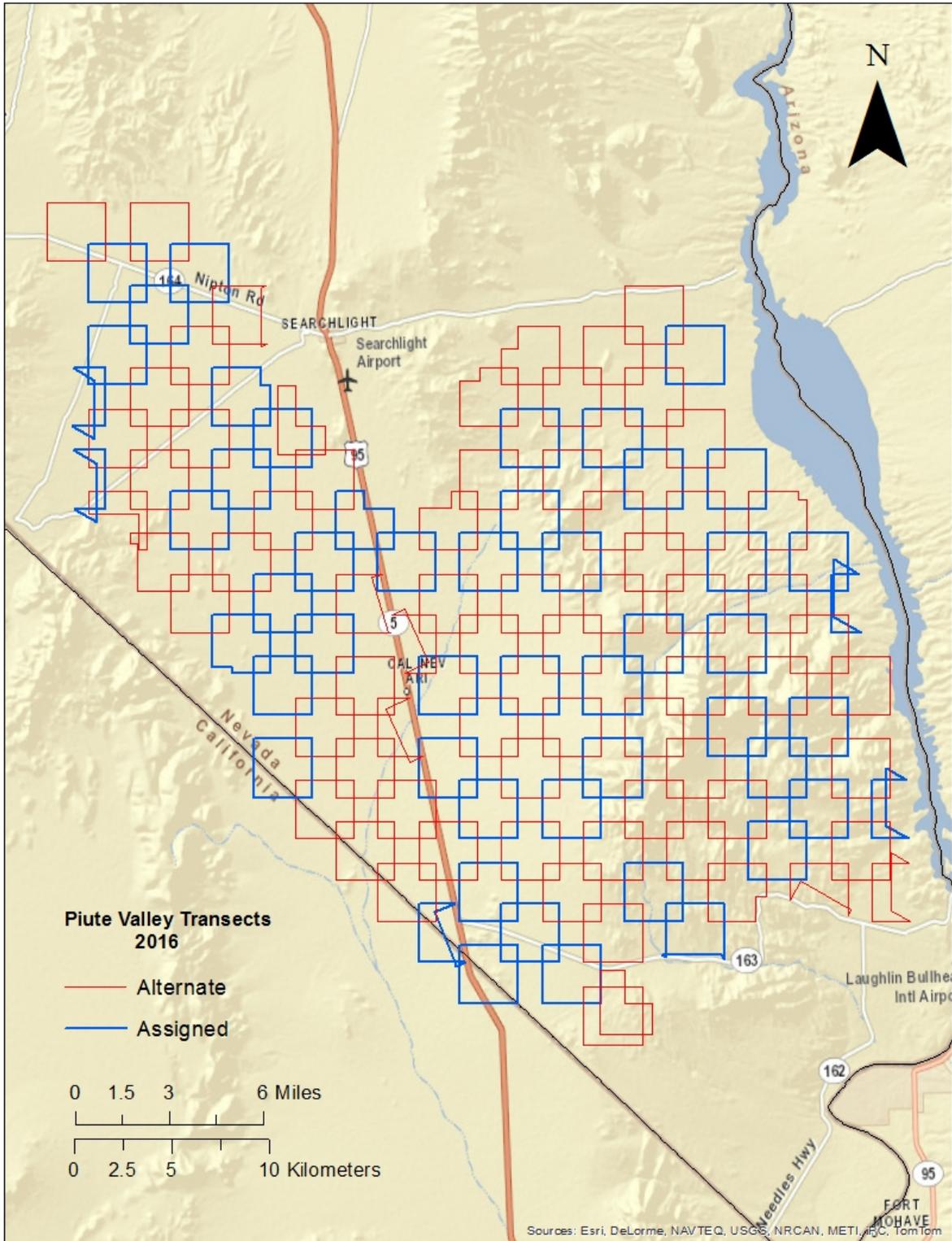


Figure 7. Map of the Piute Valley area. Blue transects are random transects selected to survey in 2016 with red transects serving as alternates in case an assigned transect is unwalkable. A random selection from all transects (red and blue) will be made for work in 2017 and 2020.

**Exhibit A**  
**Attachment 3:**  
**2015 Desert Tortoise Data Management Plan Phase I**

2015 DESERT TORTOISE MONITORING DATA QA/QC PLAN

20 MAY 2015

ww: waypoint number for current photo

zz: observation number

FL: first and last initials for the observer (as named in the database drop-down lists)

yyyy: 4-digit year; mm: 2-digit month; dd: 2-digit day

**Paper data collection system**

Paper datasheets are created by USFWS after completion of and in order to match the electronic data collection system.

**Phase I: Data Collection and Correction**

Survey organizations are responsible for collecting data in the field on paper and in Junos. In addition to QA/QC steps associated with collected data, specialists prepare and maintain data collection hardware. The ability of others to evaluate and use the data also depends on the timing and format of databases and scanned paper datasheets that are delivered from Phase I. Much of this section details QA/QC procedures, but their teams and the project rely on the specialists for many other associated activities.

Phase I includes implementing the synchronization operation to integrate data collected on each individual Juno into the appropriate single, populated Collection database (training lines, transects, or  $G_0$ ) for each organization. In addition, they are responsible for correcting errors.

UNR is responsible for developing scripts to import the populated collection databases into *Correction databases* and developing scripts to automate some of the first-level QA/QC checks.

Survey organization responsibilities include the following QA/QC steps:

- Importing the data from the populated Collection databases into the Correction databases.
- Running scripts to perform the required automated checks designed to identify common errors that can be best corrected by the survey organization. It is the survey organization's responsibility to perform an initial level of QA/QC and correct these errors (see specific checks below).
- Performing final, non-automated visual checks for errors. Examples of errors include odd times, incomplete fields, fields missing data, etc.
- Making and documenting corrections in an Errors table. Corrections to records should be clearly stated and include the fields and values that were changed. For example, instead of "corrected time", use "changed time from 6:00PM to 6:00AM to match datasheet." Unusual entries that are not corrected should also be documented in the violations table with a resolution field value explaining why the entry could not be corrected. For example, in a case where a live tortoise was found, but its MCL was not recorded, for the resolution field use "MCL could not be recorded because tortoise retreated into burrow." It would also be helpful to include this comment in the "comments" field on the observations table. Time and date fields may be edited to reflect the correct time, but the TimeStamp fields populated by the Juno should not be changed. Instead, in the Violations table, describe the origin of any anomalies in the TimeStamp fields, and indicate "exception allowed."
- Responding to and making corrections identified in the USFWS interim assessments of their data. The interim assessments are not automated and it is difficult to identify in advance all the possible corrections that may be required. However, examples from previous years include: incorrect times; sex record M or F, but comment field indicating uncertainty; mixing observers between teams; inconsistency in recording of tag numbers;  $G_0$  tortoises that are scored "not visible" but behavior is not "unknown"; incorrect numeric entries into text fields that cannot therefore limit numeric entry errors (e.g. waypoint "21" recorded as waypoint "21."); duplicate waypoints; etc.
- Delivering complete Phase I products, Collection and Correction databases (training lines, transects, and  $G_0$ ), for the next phase of data processing. Data collection and correction must be completed by survey organizations and delivered to USFWS and MDEP by **22 May 2015**.

In 2015, the training lines, transect, and G<sub>0</sub> databases will be packaged in two parts. The first part includes only data collected pre-season during training and practice. Data will be collected in two of the databases – training lines and transects – during the pre-season. Survey organizations will initiate a new set of Pendragon Collection databases at the start of the monitoring season. After this point in time, only the transect and G<sub>0</sub> databases will be populated. The following first level processes and QA/QC checks are described for each database (training lines, transect, and/or G<sub>0</sub>), irrespective of whether the final product will be a pre-season or monitoring season database.

### **Prepare laptop systems and software**

**At least 2 weeks before the beginning of training, QA/QC specialists should have the following system in place, prepared to install software provided by USFWS and the database developer:**

Hardware:

- Intel Pentium Dual Core processor (2.0 GHz+) or newer
- at least 3GB of RAM
- at least 10 GB of free hard drive space

Software:

- Windows 7/ 32 bit with all updates installed
- Microsoft Access 2010
- ArcGIS Desktop 10 (ArcView level license) (for machines involved in transect planning)

### **JUNO Preparation and Recovery from System Failure**

The recovery procedure should only be performed by QA/QC personnel if soft reset as well as hard reset with system restore does not work. This method clears all the data from the Juno and PC and then does a fresh install of all software.

Data specialists are responsible for checking and conditioning Junos, then configuring Junos with the season's software and forms and linking each Juno to its associated laptop. Conditioning procedures include replacing the screen covers, replacing and attaching styluses as needed, recharging the Junos, and identifying any units from the outset that do not hold charge well or have faulty accessories, such as charging cables. Initial preparations on all team Junos can take several days, so leave sufficient time. Preparation of Junos with the season's software and forms mirrors procedures used later to recover individual Junos from system failure.

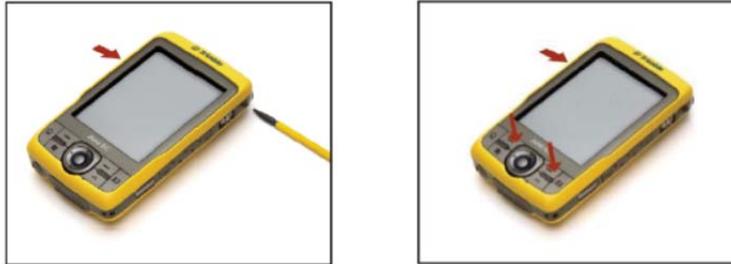
Juno set-up and recovery procedures involve interaction between the Juno and PC so that software on both can remove or distribute files (forms) that we use for monitoring work. "Sync" operations, used frequently below, refer to this interaction between the two devices and their shared software.

## Setting up Junos at the start of the season, also used for recovery from system failure

This procedure will delete all the data on the Juno.

### 1. Hard Reset

Perform a hard reset on the Juno to erase all existing data. Do not perform a hard reset unless a soft reset does not solve the problem. To perform a hard reset, press and hold the power button at the same time you lightly press the reset button with your stylus. After this, hold the Power button and both Soft Keys to turn the device back on. You will briefly see a message "Hive Clean" before the device resets to factory defaults. Hard and soft resets are described for field personnel in Chapter 4 of the Handbook.



### 2. Restore Juno firmware

Connect the Juno to the PC using the USB data cable. Wait until the windows mobile device connection (or Microsoft ActiveSync) pops up and shows Juno connected. Open My Computer, then browse to the Juno microSD-Card and create a folder named "firmware" if it is not already present. Copy the Trimble firmware file (Trimble\_Vx\_mm\_dd\_yy.exe) to the "firmware" folder on the SD Card if it is not present already. On the Juno, browse to this firmware file and double click to restore. When it prompts for "Merge Level" you should select "Level 1" and continue. The Juno will restart multiple times before the message "Restore completed" is displayed.

### 3. Setup date/time and Juno name

Check the date and time and set to the current date/time if needed. The Device ID name will also need to be changed back to "JunoTestx". (While configuring the devices for data collection you will name them Juno1, Juno2,... etc. UNR will specify what number ranges are used by each group)

### 4. Load the collection database forms

In Pendragon forms on PC, add the Juno device ID in "Users" list and then into the Users column in "Default Group". On the Juno, open Forms 5.1, click on Sync button and then Sync now button. You should now see the data collection forms. If not, open the Pendragon forms access database on the PC and make sure that the Juno username exists in the "Users List" and as a member in the "Default Group" within "Groups".

### 5. Test Juno Setup

On the Forms 5.1 main screen you should now see the Pendragon parent forms "Transects\_13, G0\_Start\_13 and Train\_Tran\_13" The associated subforms should also be accessible. Test the device to confirm that the perpendicular distance calculation and GPS grabs are working and whether the crew names belong to your group. You will have to collect sample records to do this. Make sure you delete these sample records on the Juno before you hand it over to the crews. The device is now ready for field data collection.

### **Updating the Collection database on Juno**

During training or early in the field season, small updates are often made to the collection database. Use the following procedure to replace the older version of the Pendragon database on the Juno with the updated Pendragon database version.

1. **Material to have at-hand**
  - The Juno and USB data cable
  - Your machine should be loaded with Windows Mobile and Pendragon 5.1 software.
2. **Erase all existing versions of Pendragon forms from your Juno**
  - Remove the current user from the Default Group list for the Pendragon database.
  - Sync the Juno to remove all current forms from the Forms 5.1 on the Juno
  - Verify that there are no old forms left on Juno. Open Forms 5.1 on the Juno and click on "Pendragon forms" on the top left of the screen. From the menu, select "Delete Form Designs". If the list is not empty select each form and click "Delete" until the list is empty.
3. **Install the newest version of the Pendragon forms.**
  - On your PC, copy the new database into the c:\Program Files\Forms3 folder. Rename any existing copies with an appropriate trailer, then rename the new version to FORMS32K.mdb.
  - In Pendragon, open the database and add the user under "Users" and "Groups" (default group).
  - Sync the Juno and you should have all the forms from the new database.

If necessary to work with the existing and newer records, see the "Maintaining separate versions of the collection and correction databases, and moving records between versions," below.

#### **Transfer of data from field crews to data specialists - Initiating first level QA/QC**

**Whenever data are transferred to the QA/QC specialist (also during training), the following procedures are applied:**

QA/QC specialists accept paper and electronic sheets from field crews. While crews are present, they :

- Evaluate legibility of handwriting
- Confirm that the Juno is functioning correctly
- Review paper sheets for any blank fields
- Check whether drawing of transect indicates standard or non-standard
  - If standard, check that this matches the associated field
  - If non-standard, check that this matches the associated field, and that at least one of the 3 "obstacles" fields has been used to indicate the reason for using a non-standard transect
- For transects with interruptions
  - Check that transect was marked as non-standard
  - Check that interruption points and new transect records are marked on datasheets

If any tortoises are indicated as "mcl\_ greater\_180=unknown", question the crew for any further, potentially discriminating information, and remind them that every effort should be made to collect information indicating "yes" or "no" for this field.

#### **Importing Collection databases into Correction databases**

Before running the QA/QC scripts for the first time make sure that the Correction database (Import\_QAQC.mde) exists in the same folder as the Collection database (C:\Program Files\Forms3). If not, copy the latest version of the Correction database in this folder.

Open the QA/QC scripts database by double clicking "Import\_Correction.mde" file.

Under "Forms" on the left-hand list of objects, double click on "2012\_LDS\_Import\_QAQC" to open it. Click on "Import Raw Data" at the bottom of the form to import the Collection database into the Correction database. If the training database also needs to be imported, check the "Import Training

"Data" checkbox before clicking "Import Raw Data". The following automatic functions are executed as part of the import process without further user input:

Operations performed throughout all tables in all databases

- Null *string* values in the Pendragon Collection database are assigned "null" in the Correction database
- Null *numeric* values in the Pendragon Collection database are assigned -99 in the Correction database
- Null *date and time* values in the Pendragon Collection database are assigned 1:00AM in the Correction database

Training database (polystyrene tortoise model transects and observations)

- Populate *trial\_number*, *team\_number*, *training\_line\_color*, *transect*, *training\_date*, *tran\_bearing* fields in the child form from transect form.

Transect databases

- Populate *transect number*, *stratum*, *team\_num*, *group\_*, *date\_* fields in all child forms from transect form. For practice transects at the Large Scale Translocation Site, the stratum should be LSTS.
- Populate *duplicate\_tran* in the Transects table Initiate with the value "N". (QAQC specialists will subsequently run the duplicate check, then the *duplicate\_tran* field would be changed to Y. Any transects that are duplicates will not be processed like the interrupted transects even though they have a decimal (.9) in their *tran\_num*.)
- Populate latitude and longitude values from *gps grab* in all forms
- Populate transect start and end time from Wpt 1 and 99.
- Populate drop off time and return time from Wpt 0 and 100.

G<sub>0</sub> database

- Populate *start\_time* and *end\_time* fields for G<sub>0</sub> table from first and last G<sub>0</sub> observations.
- Populate latitude and longitude values from *gps grab* in all forms
- Populate *date*, *time\_*, *G0\_site*, and *group\_* in all child forms from G<sub>0</sub> forms.

All errors encountered during the import process are logged into the file "LDS\_Import\_Log.txt" located in "C:\Program Files\FORMS3". Check this file after each import to see if any errors were encountered during the import process.

If the database cannot be imported, one identified issue is the presence of single- or double-quotes in the photo file or comments fields. These characters must be edited in the Collection database before it can be imported.

### Specific, automated QA/QC checks for errors and inconsistencies

The following describes the specific required scripts that will be executed during first level QA/QC. At a minimum these scripts should be run and errors addressed on a weekly basis.

After executing the QA/QC checks all errors encountered are logged into the Error tables. For subsequent QA/QC checks, all uncorrected errors will be logged again into the Errors table unless the error status field is marked as "exception allowed", "unresolved" or is blank.. All errors from Transect database tables (Transects, Waypoints, OppLiveObs, OppCarcObs, TranLiveObs and TranCarcObs) are logged into "Errors\_Transects" table, all errors from G<sub>0</sub> database tables (G<sub>0\_start</sub>, G<sub>0\_Obs</sub> and G<sub>0\_OppLiveObs</sub>) are logged into "Errors\_G<sub>0</sub>" table and all errors from Training database tables (Tran\_Train and Tran\_Obs) are logged into "Errors\_Training" table.

## Training Database Checks

### Training transects (training)

Tables included in check: Train Tran.

- Checks for duplicate transects for the same team on the same day with the same trial\_number and same line color.  
Error description: duplicate training transect.

### Tortoise ID (training)

Tables included in check: Train Obs.

- Checks for duplicate tortoise\_id in same day, same team, same line\_color. Error description: contains duplicate tortoise\_id, trial\_number, team\_number, and training\_line\_color values

### Observer name and position (training)

Tables included in check: Train Tran, Train Obs.

- Checks for observer\_name and observer\_position not matching lead and follow fields in the Train\_Tran table.  
Error description: observer name and observer position do not match lead or follow in Train Tran table.

### Transect segment number (training)

Tables included in check: Train Obs.

- Checks for transect\_seg\_num not matching calculated value from tran\_bearing and start\_post.  
Error description: transect\_seg\_num does not match tran bearing and start post.

### Time (training)

Tables included in check: Train Tran, Train Obs.

- Checks for training\_start\_time not before training\_end\_time.  
Error description: training\_start\_time is after training\_end\_time
- Checks for observation\_time not between training\_start\_time and training\_end\_time.  
Error description: observation time is not between training start time and training end time

### Radial Distance (training)

Tables included in check: Train Obs.

- Checks for radial\_distance\_m with more than one decimal place.  
Error description: radial\_distance\_m has more than one decimal place

### Bearing (training)

Tables included in check: Train Obs.

- Checks for local\_bearing not within 40 degrees of tran\_bearing.  
Error description: local\_bearing is not within 40 degrees of tran\_bearing

### Perpendicular distance (training)

Tables included in check: Train Obs.

- Checks for perp\_distance\_m greater than radial\_distance\_m.  
Error description: perp\_dist\_m is greater than radial\_distance\_m.
- Checks for perp\_distance\_m greater than 25 m.  
Error description: perp\_distance\_m is greater than 25 m.

## Transects and G<sub>0</sub> Database checks

### Database relationship checks

- Missing waypoints (transects)  
Tables included in check: Waypoints
  - For non-interrupted transects, identify transects that are missing drop off, start, end, or return waypoints. The Error record should be recorded for the Transects table, giving the tran\_prime\_key for the transect with the missing waypoint.  
Error description: missing waypoint xxx.
  - For interrupted transects (those with end\_tran\_part = Y, note: do not base this on the xxx.x format as that format is also used for duplicate walks of a transect), identify main transect (xxx) with missing drop off and start waypoint and for the last part (xxx.x) identify missing end and return waypoints. The Error record should be recorded for the Transects table, giving the tran\_prime\_key for the transect with the missing waypoint.  
Error description: missing waypoint xxx.
- Orphan records (transects and G<sub>0</sub>)  
Tables included in check: Waypoints, OppCarcObs, OppLiveObs, TranCarcObs, TranLiveObs, q0 Obs, q0 OppLiveObs
  - Check for orphan records created in sub-forms when the transect from the transects table has been deleted, G<sub>0</sub>\_start record has been deleted, or training transect record has been deleted.  
Error description: missing parent record.

### Duplicate record checks

- Duplicate transects (transects)  
Tables included in check: Transects
  - check for duplicate transect numbers.  
Error description: duplicate tran\_num.  
Duplicate transects should be numbered by concatenating the original tran\_num with ".9". If more than one duplicate is walked, continue by added extra decimal values of 9 (.99, .999, etc.). Duplicate transects that also have interruptions should be numbered first with the .9 for the duplicate transect, then a following decimal to describe the portion of the transect the record represents (e.g. 341.9, 341.91, 341.92).
- Duplicate waypoints (transects)  
Tables included in check: Waypoints
  - check for duplicate waypoints in the same transect.  
Error description: duplicate waypoint.

### Multi-field attribute condition checks

- Lead and Follow (transects)  
Tables included in check: Transects
  - Check for transects that have the same observer name for 'observer1' and 'observer2' fields.  
Error description: observer1 and observer2 are the same.
  - Check for null 'observer1' and 'observer2' values;  
Error description 1: observer 1 is Null  
Error description 2: observer2 is Null.
- Time (transects, and G<sub>0</sub>)  
Tables included in check: Transects, Waypoints, TranCarcObs, TranLiveObs, q0 Start, q0 Obs
  - Check all time values against these logical domains from database dictionary:

Table	time_field	Begin domain	End domain
Transects	do_time	4:00am	10:00am
Transects	tran_start_time	5:00am	10:00am
Transects	tran_end_time	8:00am	6:30pm
Transects	ret_do_time	8:00am	6:30pm
Waypoints	time_	5:00am	6:30pm
G0_Obs	time_	5:00am	6:30pm
TranCarcObs	time_	5:00am	6:00pm
TranLiveObs	time_	5:00am	6:00pm
G0_Start	tran_start_time	5:00am	10:00am
G0_Start	tran_end_time	8:00am	6:30pm

Error description: [time field] is not within domain [beg] to [end]. (Substitute the field name and domain values. Example: do time is not within domain 4:00:00 AM to 10:00:00 AM.

- For interrupted transect segments other than the first main transect record, do not apply start\_time and end\_time checks.
- Date (transects, and G0)
 

Tables included in check: Transects, Waypoints, TranCarcObs, TranLiveObs, q0\_Start.

  - Check all date values against logical domain from database dictionary
 

Error description: [date field] is not within domain [beg] to [end]. (Substitute the field name and domain values. Example: date is not within domain 3/22/2015 to 5/10/2015.
- MCL (transects and G0)
 

Tables included in check: OppCarcObs, OppLiveObs, TranCarcObs, TranLiveObs, q0 OppLiveObs

  - Check for mcl\_mm greater than 180, but mcl\_greater\_180 not yes
 

Error description: inconsistency between mcl\_mm and mcl\_greater\_180.
  - Check for mcl\_mm less than 180, but mcl\_greater\_180 not no
 

Error description: inconsistency between mcl\_mm and mcl\_greater\_180.
  - Check for mcl\_mm greater than 0, but mcl\_greater\_180 is unknown.
 

Error description: inconsistency between mcl\_mm and mcl\_greater\_180.
  - Check for mcl\_mm equal to 0 if temperature is less than 36°C.
 

Error description: Mcl\_mm is 0.
  - Check for carc\_condition intact, but mcl\_mm is Null.
 

Error description: inconsistency between carc\_condition and mcl\_mm.
  - Check for carc\_condition disarticulated, but mcl\_mm is not Null.
 

Error description: inconsistency between carc\_condition and mcl\_mm.
  - Check for tortoise location is not burrow and temperature is less than 36°C, but mcl\_mm is null.
 

Error description: inconsistency between tort\_location and mcl\_mm.
- Temperature (transects and G0)
 

Tables included in check: OppLiveObs, TranLiveObs

  - Check for inconsistency between temp\_C and temp\_greater\_35C,
 

Error Description: inconsistency between temp\_C and temp\_greater\_35C
- Visibility (G0)
 

Tables included in check: q0\_Obs

  - If visibility is "no" then behavior must be "unknown" (G0).
 

Error description: Inconsistency between visibility and behavior.
- Burned (G0)
 

Tables included in check: q0\_Obs

- Check for G<sub>0</sub> observations where G<sub>0</sub>\_site is not HW, but burned is not null or where G<sub>0</sub>\_site is HW, but burned is null.  
Error description 1: site is HW, but burned is null.  
Error Description2: site is not HW, but burned is not null.

### Spatial condition checks

- UTM zone  
Tables included in check: Waypoints, OppCarcObs, OppLiveObs, TranCarcObs, TranLiveObs, g0 Obs, g0 OppLiveObs
  - Check for strata other than "BD" and "GB" having zone 12 or if gps zone and manual zone are missing.  
Error description1: gps zone or manual zone are 12, but stratum is not BD or GB.  
Error Description2: missing gps zone or manual zone.
- Easting and northing  
Tables included in check: Waypoints, TranCarcObs, TranLiveObs, G0 Obs
  - Check for easting or northing coordinates that fall outside of the assigned monitoring stratum. Coordinates for this check are in the Stratum\_Info table of the database and should match coordinates in this plan (see *Spatial condition checks* for Phase II in this Plan for stratum and G<sub>0</sub> coordinates).  
Error description1: easting or northing are not within stratum boundary.  
Error description2: easting or northing are not within G<sub>0</sub> site boundaries.
- Missing location data  
Tables included in check: Waypoints, OppCarcObs, OppLiveObs, TranCarcObs, TranLiveObs, g0 Obs
  - Check records with missing automatic and manual gps coordinates (transects, G<sub>0</sub> observations).  
Error description: missing gps or manual easting or northing.

### Procedures for addressing errors

Whether an error was identified automatically or by visual examination, at least one and possibly more error records must be created to document these inconsistencies and any resulting changes to the database. It is common to change a database only to later discover that the original data were unusual but not incorrect, or that a different correction is required. In these cases, revisions are straightforward if you have documented your edits, and are a headache if you have not.

### Error tables and error records

All errors encountered are logged into either Errors\_Transects, Errors\_G<sub>0</sub>, or Errors\_Training tables in the Correction database. Following are the fields in each of the error tables. All the error tables share "Common fields for all error tables," but also have specific fields (d1, d2, etc.) depending on the error table. Fields (a)-(f) and all specific fields are automatically populated by the scripts, whereas the (g)-(j) fields are manually entered by QA/QC specialists as they address each error.

#### Common fields for all error tables

- ID – auto-number used to identify record
- date – the date when the QA/QC scripts were run
- table\_name – table name of the error record.
- fields specific to error table.
- prime\_key – primary key of the table with error record
- error\_desc – short description on type of error found
- old\_value – old incorrect value of the field
- new\_value – null, new correct value entered by QA/QC specialist
- resolution – null, steps taken by QA/QC specialist to resolve the error
- resolver – null, name of agency correcting the errors
- error\_status – null, status of error after correction

#### Specific fields in Transects Error table

- d1. tran\_date – date when the transect was walked
- d2. tran\_num – transect number for error record
- d3. stratum – stratum for the error record
- d4. team\_num – team number for the error record
- d5. wp\_obs\_num – waypoint or observation number depending on error table

#### Specific fields in G0 Error Table

- d1. G0\_date – date when the G0 observation was recorded
- d2. G0\_site – G0 site for the error record, null if not applicable
- d3. group\_ – group for the error record, null if not applicable
- d4. tort\_obs\_num - tortoise ID or observation number depending on error table

#### Specific fields in Training Error table

- d1. training\_date – date when the training record was collected
- d2. trial\_num – trail number for error record
- d3. team\_num – team number for the error record
- d4. training\_line\_color – training line color for the error record, null if not applicable
- d5. transect - transect number for the error record.
- d6. tortoise\_id – tortoise\_id for the error record, null if not applicable

Records with errors in the data tables can be identified using the information in table\_name, prime\_key, tran\_num, stratum team\_num, wp\_obs\_num and tran\_date fields of the Errors table. If information is not available, the associated fields will be either null (text field), -99 (numeric field), or 1:00AM (time fields). As also described in the sequence of procedures below, if one of the above identifier fields such as date, tran\_num, or stratum was part of the identified error, you will ultimately also edit these identifier fields in both the data table and the error table so they both reflect the correct information; these edits allow the error record to continue to match its associated and repaired record in the data tables.

#### **Add error records for errors not identified by QA/QC scripts**

For errors that were identified during systematic visual inspection of tables (see *Non-automated checks for errors and inconsistencies*, below), the error records are obviously not generated automatically in the Errors table; a manual error record will need to be created. The QA/QC specialist will have to populate fields (b)-(k) and fields specific to the associated Error table for each record that is manually created. Care should be taken to enter the information accurately as these fields are critical for identifying the correct record.

#### **Decide whether the identified error is correctable**

To determine whether an identified error can be corrected, review the paper datasheets or contact crew members, if necessary. The two sets of data, paper and electronic, are used to verify and correct one another. During each step of QA/QC, the electronic data are systematically reviewed (often using automated procedures). If a discrepancy is found in the electronic form, and a different entry is available on the paper form the paper data take precedence. If an error is suspected on the paper data sheet, the crew recording the data should be questioned and any other evidence considered to determine whether an error was committed on the paper data sheet. If a discrepancy between the paper and electronic data forms cannot be corroborated one way or the other, the paper data sheet stands as the definitive data entry.

#### **Correct errors in the QA/QC Database**

If the error can be corrected, correct the erroneous record in the data table and prepare to use the new information to update the associated error record.

**Update the error table resolution fields and the record's error\_status field to explain action taken**

After the error has been fixed or determined that it cannot be fixed, the old\_value, new\_value, resolution, resolver and status fields in the appropriate Errors table (Training, Transects, or G0 Error table) must be manually completed for the error record. Note that if one of the identifier fields such as date, tran\_num, or stratum was part of the identified error (it is now reported as an "old\_value"), you must edit these identifier fields in both the data and error tables to reflect the correct new\_value; these edits allow the error record to continue to match its associated and repaired record in the data tables.

Whenever you make a determination on the error\_status, you are a "resolver", and this field should contain the name of the person/agency addressing the error. The "resolution" column should clearly mention steps taken to correct the error or should explain why the error could not be corrected.

**Error status = Resolved**

Any changes to data records should be represented by error records with an error\_status value of "resolved". If you need to make a correction to a record for which there is no error record, then you must manually add the error record and use the resolution field to describe the correction, as described above. If you have thoroughly reviewed the database records and paper datasheets, as well as consulted the field monitors, and a correction is still not possible, you should mark the record as "exception allowed" or "unresolved" and use the resolution field to explain why the exception is being allowed or why the record cannot be resolved during QAQC I. The "old\_value" columns, if automatically populated, should contain the original incorrect value of the field and "new\_value" column should contain the correct value replaced. For example if the time field is corrected, the resolution should be "changed time to match the datasheet" and the "old\_value" field should contain 6:00PM and "new\_value" should contain 6:00AM.

**Error status = Unresolved**

If the error cannot be corrected during QAQC I, but needs further evaluation during QAQC II or III, its error\_status is "unresolved." You are still the "resolver" for QAQC I because you addressed the error, so the resolver field should contain your name or initials. Marking the status to "unresolved" will skip the error (and not log it again in error tables) in subsequent QA/QC checks. The resolution field should describe why the error\_status is unresolved and provide any information that might help evaluation during QAQC II or III.

**Error status = Exception allowed**

An exception may be allowed because a correction could not be made (i.e. the paper datasheet matched the electronic data or the field monitors could not explain the discrepancy) or because the record did not represent an error (i.e. the perpendicular distance really was greater than 25m, the tortoise retreated into a burrow, the tortoise was too small to tag).

It is especially important to describe why error records are being left as exceptions. For example, if an mcl\_mm field is blank, it matches the paper datasheet, and could not be resolved by consulting with the field monitors, the resolution field should be "mcl\_mm not measured, matched datasheet, team could not explain". Another example might be that one of the Juno units failed and the data had to be entered into the electronic units later in the day. When this happens, there will be error records generated because the TimeStamp when the data was entered will not match the times entered from the paper datasheets. In these cases, the error records should be marked as "exception allowed" and the resolution field should note the device failure such as "Juno failed, data was entered manually later in the day". If a crew forgets their RDA and only records the data on the paper datasheets while walking the transect, these errors would also be marked as "exception allowed" but the resolution would be "team forgot Juno, data was entered manually later in the day". All records marked as "exception allowed" should have an explanation in the resolution field. Ideally, the associated records in the database table (Transects, Waypoints, etc.) would also have an explanation in the comments field. Make any explanations in database table comments fields as clear and

concise as possible. They do not need to include all of the details that you might include in the error table resolution field. If you changed any part of a record, the associated error record should not be marked as "exception allowed". Marking the status to "exception allowed" will skip the error (and not log it again in error tables) in subsequent QA/QC checks.

#### Error status = Script error

In this case, an error record has been generated due to overly restrictive rules in an automated check. No edit to the original record is required, and if possible a revised version of the QAQC database will be created to avoid this mistake. If that happens, the error records can be removed from the Error table; the error records will not be regenerated the next time error scripts are run. The QAQC database has been revised in the past when interrupted transects are documented with new electronic records for each segment; the start time for the segments may be later than scripted, although the transect was started in the correct window of time. Alternatively, if the QAQC database is not revised, these resolutions are equivalent to "exception allowed," signaling that no further review of this case is required. For this reason, it is important to use this resolution deliberately and to alert all other data management cooperators to this original issue. The QAQC database may not be revised simply to address a transmitted animal that has wandered beyond the scripted UTM polygon that was anticipated before the field season.

#### **Update the paper data sheets to reflect changes and match the electronic database**

If an error on the paper data sheet is corroborated, the QA/QC specialist identifying and determining the data error draws a single line through the erroneous data on the paper sheet, neatly prints in ink the correct data above the erroneous data, then initials and dates the correct data entry. This data correction is then input into the errors table of the digital database to maintain a record of the correction.

After the paper sheet has been scanned, it should no longer be edited by hand. Instead, all further corrections will be made electronically as Adobe "sticky notes." These notes are anchored to the point where they are inserted, and automatically indicate the creation date. Although an identifier is added for the commenter, care should also be taken to type in the commenter's initials at the start of the note. Necessary edits are documented by using language like, "Change field "zzzzz" from xxxx to yyyy." If multiple related changes need to be made, a general explanation is provided first: "Crew confirmed verbally that the tortoise was in a pallet, not a burrow. Change "tortoise\_location" field from pallet to burrow. Change field "burrow\_visibility" from high to null. Change field "tortoise\_in\_burrow\_visibility" from high to null." The edited version should be given the same name as the original file so that it will automatically replace earlier versions of the scanned file (see "Deliver Paper Datasheets," below).

#### **Non-automated processing steps and checks for errors and inconsistencies**

The following lists describe checks for common errors that may not be identified by the automated checks, or that may have appeared in the process of making corrections for the automated checks. The lists are not exhaustive, but illustrate ways to methodically examine data tables for missing or inconsistent values.

When an error or inconsistency is found, it should be manually entered into the appropriate Error table, taking care to correctly identify the record by its TableName and TableRecord\_ID fields. The error description should follow a similar format as the automated checks, and due to the types of checks that are possible manually, will often be of the form: Invalid [field name] (for instance, "Invalid team\_num", "Invalid observer\_name"). Many of the non-automated checks are purposefully redundant of the automated checks above. This provides a last review of the data to catch errors or inconsistencies that might have been introduced earlier in the QA/QC I process. Redundant checks are in italic below.

### Checks based on format type and common to all tables

- Check that timestamps are valid by sorting them in ascending and descending order. The TimeStamp fields are never edited, but descriptions of the cause for invalid times should be provided in the Violations table and the violation status should be 'exception allowed'.  
Error description: Invalid TimeStamp
- Check numeric fields for errors (e.g. decimals after numbers, zero preceding number). Sort by field. These errors can occur where the field type is text, such as tortoise IDs (Transects and G0 forms), and Easting/Northing fields.  
Error description: Invalid number format
- Use the dropdown arrow for each text or categorical field to view unique entries looking for typos or values that are not consistent, such as observer names with typos, entries with extra punctuation, values that are abbreviations, etc.  
Error description: Invalid text entry
- Sort to view records with any comments, looking for indications that there are questions about field values.

### Train\_Tran Table

- Sort by total\_time, look for unusually high or low numbers
- Sort by team\_number, look for unusually high or low numbers
- Sort start\_post descending, look for letters higher than "L"
- Sort transect\_seg\_num descending, look for numbers higher than 8
- *Sort training\_date ascending and descending, look for dates outside of training sessions*
- View unique values for lead and follow, look for misspellings of observer names

### Train\_Obs Table

- View unique values for observer\_name, look for misspellings of observer names
- *Sort tortoise\_id in descending order, look for ID#s larger than the known highest ID#(288)*

### Train\_Teams Table

- Populate the Train\_Teams table. Because teams may be reconstituted for each Trial, new records identifying teams should be created for each trial. To populate the new table, write a query based on Train\_Tran to create a single record of Observer1 and Observer2 for each team

### Transects Table

- *Check if do\_time, tran\_start\_time, tran\_end\_time and ret\_do\_time are null (1:00AM). Sort by time.*
- Sort by the combination of tran\_standard, unplanned\_modification, terrain\_obstacles, subst\_obstacles, and other\_obstacles.
  - Check if tran\_standard if null.
  - If tran\_standard = N, confirm there are listed obstacles.
  - All unplanned\_modification = Y records should also indicate tran\_standard=N and obstacles should be indicated.
  - For interrupted transects, the Correction database should indicate tran\_standard=N and should aggregate all listed obstacles from each segment of an interrupted transect in the main transect record (first segment) for that transect. The main record should also have the do\_time, tran\_start\_time, tran\_end\_time, and ret\_do\_time as it applies to the entire transect. (Note that the Collection database differs from the Correction database in that each segment of an interrupted transect should list obstacles encountered on that segment.
- Make sure observer names are spelled consistently. View unique values for observer1 and observer2 fields.
- *Check for invalid entries in the date field. Sort dates ascending then descending.*

- Check *do\_time*, *tran\_start\_time*, *tran\_end\_time* and *ret\_do\_time* for accuracy. For example, *do\_time* should be earlier than *tran\_start\_time*, etc.
- Compare date and time fields with Juno date/time stamp. Do not edit the TimeStamp fields, but if necessary, corrections can be made to the individual date and time fields.

#### Waypoints Table

- *Lead* or *Follow* fields should be null only for waypoints 0, 99 and 100, or when a waypoint is taken at an interruption (*end\_part=Yes*).
- Check for waypoint numbers that are missing or invalid (duplicate, or with decimal places).

#### OppCarcObs Table

- Check for the accuracy of detection numbers. Sort by transect number, then detection number.
- *mcl\_mm* should be null for disarticulated carcass and *mcl\_mm* should be > 0 for intact carcass.
- Sex should be unknown for *mcl\_mm* <180.

#### OppLiveObs Table

- Check for the accuracy of detection numbers. Sort by transect number, then detection number.
- Sort by neighboring fields location, *burrow\_visibility*, *tortoise\_in\_burrow\_visibility*, *tortoise\_visibility*. If tortoise location is burrow, *burrow\_visibility* and *tortoise\_in\_burrow\_visibility* should not be null. For other locations the *tortoise\_visibility* field should not be null.
- If tortoise location is burrow, *dist\_to\_burrow\_m* should be 0. Because distances here are rounded to the nearest meter, *dist\_to\_burrow\_m* field should otherwise only be 0 if the tortoise is within half a meter of the burrow entrance.
- *Dist\_to\_burrow\_m* cannot be null (-99); check to see whether 100 (none seen within 15 m of the tortoise) is appropriate instead.
- The *mcl\_mm* field should be null if the temperature is greater than 35°C.
- Sort descending on *mcl\_mm* and look for unrealistically large values (check with crews for values over 320.)
- Sex should be unknown for *mcl\_mm* <180.
- If new tag attached is "Yes" then new tag number should not be null and if existing tag is yes then existing tag number should not be null
- *If the tortoise is in the "Open" and temperature is less than 36°C then the mcl\_mm, body\_condition\_score, nares\_appearance, nares\_discharge, and ticks should not be null.*
- Check for New tag number format. "FWxxxx" is correct. "FW-xxxx" is not.
- Sort on *tort\_not\_handled*, *tort\_not\_handled\_other*, *existing\_tag*, *tag\_attached*, *MCL*, *sex*, and *BCS* fields and for null entries of the latter 4 fields, confirm that a reasonable explanation exists in the *tort\_not\_handled* or *existing\_tag* fields.
  - If *tag\_attached* is "no" then either *existing\_tag* is "yes", or *tort\_not\_handled* is not null.
  - *tag\_attached*, *MCL*, *sex*, *BCS*, *nares\_appearance*, *nares\_discharge* are not null
  - if *tag\_attached*, *MCL*, *sex*, *BCS*, *nares\_appearance*, or *nares\_discharge* are Unknown, *tort\_not\_handled* or *tort\_not\_handled\_other* are not null
- Error description: inconsistency between conditions and data collection on tortoise
- Check whether the observation was made between *tran\_start\_time* and *tran\_end\_time*. If so, check with crew about why it was not correct to collect distance information.

#### TranCarcObs Table

- Check for the accuracy of detection numbers. Sort by transect number, then detection number.
- Look for radial distances with more than one decimal places. Radial distance should only be recorded to one decimal place.
- *If the carcass condition is Disarticulated then mcl\_mm should be null.*
- *If the carcass condition is Intact then mcl\_mm should not be null.*
- If existing tag is "Yes" then existing tag number should not be null.

- Sort descending on *mcl\_mm* and look for unrealistically large values (check with crews for values over 320.)
- Sex should be unknown for *mcl\_mm* <180.

#### TranLiveObs Table

- Check for the accuracy of detection numbers. Sort by transect number, then detection number.
  - Radial distance should only be recorded to one decimal place.
  - Sort by neighboring fields visible, location, burrow\_visibility, tortoise\_in\_burrow\_visibility, tortoise\_visibility. If tortoise location is burrow, burrow\_visibility and tortoise\_in\_burrow\_visibility should not be null. For other locations the tortoise\_visibility field should not be null.
  - If tortoise location is burrow, dist\_to\_burrow\_m should be 0. Because distances here are rounded to the nearest meter, dist\_to\_burrow\_m field should otherwise only be 0 if the tortoise is within half a meter of the burrow entrance.
  - Dist\_to\_burrow\_m cannot be null (-99); check to see whether 100 (none seen within 15 m of the tortoise) is appropriate instead.
  - If tortoise location is burrow, then tortoise\_heading entries must include Profile, FacingIntoBurrow, or FacingOutOfBurrow. Other entries may be added, too, but one of these is required.
  - Dist\_to\_burrow\_m cannot be null (-99); check to see whether 100 (none seen within 15 m of the tortoise) is appropriate instead.
  - The *mcl\_mm* field should be null if the temperature is greater than 95°F.
  - *If the tortoise is in the "Open" and temperature is less than 36°C then the mcl\_mm, body\_condition\_score, nares\_appearance, nares\_discharge, and ticks should not be null.*
  - Sort descending on *mcl\_mm* and look for unrealistically large values (check with crews for values over 320.)
  - Sex should be unknown for *mcl\_mm* <180.
  - Check for New tag number format. Should be "FWxxxx". Should not be "FW-xxxx".
  - Sort on tort\_not\_handled, tort\_not\_handled\_other, existing\_tag, tag\_attached, MCL, sex, and BCS fields and for null entries of the latter 4 fields, confirm that a reasonable explanation exists in the tort\_not\_handled or existing\_tag fields.
    - If tag\_attached is "no" then either existing\_tag is "yes", or tort\_not\_handled is not null.
    - tag\_attached, MCL, sex, BCS, nares\_appearance, nares\_discharge are not null
    - if tag\_attached, MCL, sex, BCS, nares\_appearance, or nares\_discharge are Unknown, tort\_not\_handled or tort\_not\_handled\_other are not null
- Error description: inconsistency between conditions and data collection on tortoise

#### G0\_Start Table

- Check for start\_time or end\_time null values (1:00AM). Sort ascending and descending.

#### G0\_OppLiveObs Table

- Check for the accuracy of detection numbers. Sort by transect number, then detection number.
- The *mcl\_mm* field should be null if the temperature is greater than 35°C.
- Sort descending on *mcl\_mm* and look for unrealistically large values (check with crews for values over 320.)
- If new tag attached is "Yes" then new tag number should not be null and if existing tag is "Yes" then existing tag number should not be null.
- Sort on tort\_not\_handled, tort\_not\_handled\_other, existing\_tag, tag\_attached, MCL, sex, and BCS fields and for null entries of the latter 4 fields, confirm that a reasonable explanation exists in the tort\_not\_handled or existing\_tag fields.
  - If tag\_attached is "no" then either existing\_tag is "yes", or tort\_not\_handled is not null.
  - tag\_attached, MCL, sex, BCS, nares\_appearance, nares\_discharge are not null
  - if tag\_attached, MCL, sex, BCS, nares\_appearance, or nares\_discharge are Unknown, tort\_not\_handled or tort\_not\_handled\_other are not null

Error description: inconsistency between conditions and data collection on tortoise**G0\_Obs Table**

- The burned field should be null for all sites except HW.
- Sort by neighboring fields visible, location, burrow\_visibility, tortoise\_in\_burrow\_visibility, tortoise\_visibility. If tortoise location is burrow, burrow\_visibility and tortoise\_in\_burrow\_visibility should not be null. For other locations the tortoise\_visibility field should not be null. Be alert for any indication that the tortoise was visible when first observed, but fled to a burrow. Frequently, the observer will collect data consistent with both locations instead of sticking the original setting.
- If more than one transmitted tortoise is in a burrow, the visibility of the inner tortoise(s) should reflect that they were blocked by the foremost one. There should not be 2 high visibility tortoises in one burrow, for instance.
- If visible=No and location is not burrow, it will usually be vegetation. Confirm that tortoise\_visibility= Not Visible
- *If visible=No, behavior should be Unknown or rarely Digging or Moving.* If visible=Yes, pay attention to any records for which behavior is Unknown. Did the crew explain this in the comment? The comment should indicate the tortoise was responding to the observer before it was detected.

USFWS will perform interim assessments of each Survey organization's populated Correction database. This is a non-automated review of the data and is intended to provide timely feedback to reduce errors in future weeks of data collection. Because survey organizations submit appended correction databases each week, there is also opportunity to remedy errors identified by USFWS in the interim assessments. The interim assessments will focus on identification of non-script errors and inconsistencies (see above). It will also summarize start-, end-, and total time on transect, as well as changes in the shape of the detection curve over the field season.

**Maintaining separate versions of the collection and correction databases, and moving records between versions**

Although the collection and correction databases are developed and tested ahead of the field season, it is typical to find correctable problems before the field season gets underway. In the interest of improved data entry, these changes are made, but there are associated skills required of data specialists in order to work with different versions, sometimes transferring records between versions.

**Final processing steps: data backup and delivery**

Each data specialist will work with two Collection and two Correction databases. After all training is completed, QA/QC I is finalized on that database and the Collection and Correction databases are delivered. A new collection database is started for the field season only. Both the training and field season databases have the same forms, so there is no difference in the Juno version of the database. There is also no difference in the Correction version of the database, but a new one is created from the master database.

The Correction Database appends only new records each time the Collection Database is imported. The steps below ensure that 1) each iteration of the Collection and Correction databases are saved in a separate location from the active versions, 2) all saved databases are identified by the last date of information they contain (associated Collection and Correction databases will have the same date information), 3) the current Collection database to be uploaded always has the same name for recognition by the scripts in the Correction database.

The following steps describe the process of finalizing each updated version of a database after the data have been downloaded from Junos and have gone through QA/QC procedures. After these steps, you are ready to repeat the process again with new data!

### 1. Backup and deliver the Collection database

The Collection database should be backed up after any new data have been imported (Synced). Create a folder on external storage and rename it to "FORMS32K\_SurveyOrganization\_MMDDYY ". Copy the "FORMS32K.MDB" file and manual photos folder ("manual\_photos") from the "C:\Program Files\Forms3" folder on the machine used for syncing Junos onto the new folder created on the external storage device and then rename the MDB file to "FORMS32K\_SurveyOrganization\_MMDDYY.MDB". Create a zip file from "FORMS32K\_SurveyOrganization\_MMDDYY" folder on external drive and rename the zip to "FORMS32K\_SurveyOrganization\_MMDDYY.zip". The date should correspond to the last instance of collected data. Do not rename the source file found in "C:\Program Files\Forms3". The zip version of the Collection database is delivered via Google Drive.



### 2. Backup and deliver the Correction Database

The Correction databases should be backed up after each QA/QC session consisting of importing new data from the Collection database, running QA/QC checks and correcting all the errors found in the Errors table. To back up the database, copy the "Import\_Correction.mde" file onto the external storage device and then rename the copy "Import\_Correction\_SurveyOrganization\_MMDDYY.MDE". Create a zip file from this renamed MDE file, store it in the same location and rename it to "Import\_Correction\_SurveyOrganization\_MMDDYY.zip". The date used for naming should match the date of the corresponding "FORMS....mde" file. **Do not rename the source file found in "C:\Program Files\Forms3".** The zip version of the Correction database should be delivered via Google Drive.

**Note:** All dates in file names should correspond to the date of the last instance of data collected in the "FORMS...MDB" file. For each set of collection data, two files should be sent to MDEP and USFWS. Example: The FORMS32K.MDB file is appended to after transects are walked on 05/01/2015. When the QAQC session is complete on 05/04/2015 (checks have been run and errors corrected), the following two files would be sent to MDEP and USFWS. They are all dated with 05/01/2013 even though they are not created on that date because the date represents the date of the data collected, not the date that the QAQC processes were completed.

- FORMS32K\_SurveyOrganization\_050115.zip
- Import\_Correction\_SurveyOrganization\_050115.zip

At the time they deliver the final Preseason databases, the data specialist should designate the final correction version using the naming convention above, suffixed by "\_FinalTraining" Although other versions with this date may exist (covering the same time period), this version may have undergone subsequent editing and is the final submission by the survey team. At the end of the field season, a final Correction database will also be delivered, with the suffix "\_FinalSeason" to distinguish it from any earlier versions of the same data records and to designate the final submission

Phase I QA/QC for Preseason databases will be completed and delivered with scanned paper datasheets (see below; originals can be delivered with final Field Season datasheets) to USFWS and MDEP by **16 April 2015**.

### 3. Deliver Paper Datasheets

Each week, QA/QC specialists send scanned versions of that week's paper datasheets to USFWS. The DPI Rate should be 150 with the setting of halftone black and white to pick up lightly hand written images. Copies of these scanned versions are kept by the QA/QC specialist to add necessary annotations when data errors and inconsistencies are addressed. The original paper datasheets themselves should be sent to USFWS as part of the final delivery of QAQC I products. Until final delivery of QAQC I products, electronic edits can be made to the scanned datasheets that were retained for QA/QC I. Datasheets that have been annotated after the initial scanned version should have the same name as the original so that the later version completely replaces any other version that has been shared with USFWS. Final data delivery should also include upload of any final edits to scanned data sheets. Digital scanned datasheet filenames and folder organization should follow the guidelines below.

**Training Data:** Training scanned datasheets should be organized into the following folders: 'TrainingLines\_datasheets', 'PracticeTransects\_datasheets', and 'PracticeG0\_datasheets'.

**TrainingLines\_datasheets:** This folder should contain scanned datasheet PDF files for the practice training lines. All sheets associated with a single date for a team in a specific trial should be grouped into one PDF file. Filenames should be composed of the Team number, Trial number, and Date (examples: Team21\_Trial1\_20150325.pdf, Team6\_Trial2\_20150402.pdf).

**PracticeTransects\_datasheets:** This folder should contain scanned datasheet PDF files for the practice transects at the Large Scale Translocation Site (LSTS). All sheets associated with a single practice transect for a team should be grouped into one PDF file. Filenames should be composed of the Transect number, Stratum (LSTS), and Year (examples: 10\_LSTS\_2015.pdf, 14.1\_LSTS\_2015.pdf). For practice transects there are often duplicate walks of the same transect. Duplicate transects should be numbered with a concatenation of the main transect number plus ".9". If more than one duplicate is walked, concatenate ".99". The scanned datasheet PDF files should contain the .9, .99, etc. suffixes.

**Transect Data:** Transect scanned datasheets should be organized into a folder named "Transects\_datasheets". This folder should contain subfolders for each stratum abbreviation. Each subfolder should contain scanned datasheet PDF files for the transects walked in that stratum. All sheets associated with a single transect for a team should be grouped into one PDF file. Filenames should be composed of the Transect number, Stratum, and Year (examples for the 'AG' subfolder: 119\_AG\_2015.pdf, 1860\_AG\_2015.pdf; examples for the 'OR' subfolder: 188\_OR\_2015.pdf, 2399\_OR\_2015.pdf).

**G0 Data:** G0 scanned datasheets should be organized into a folder named "G0\_datasheets". This folder should contain subfolders for each G0 site abbreviation. Each subfolder should contain scanned datasheet PDF files for the G0 iterations in that G0 site. All sheets associated with a single G0 iteration for an observer should be grouped into one PDF file. Filenames should be composed of the G0 site and the Date of the iteration. If more than one observer performed iterations on the same day in the same G0 site, the files should be suffixed with the initials of the observer. (examples for the "CK" subfolder: CK\_20150412\_PA.pdf, CK\_20150412\_KH.pdf, CK\_20150423.pdf; examples for the "SC" subfolder: SC\_20150405\_PA.pdf, SC\_20150425\_KS.pdf, SC\_20150416.pdf). G0 site abbreviations for 2015 are as follows:

G0_site	G0_site_desc
CK	Chuckwalla
IV	Ivanpah
JT	Joshua Tree
SC	Superior-Cronese

Phase I QA/QC for Preseason databases will be completed and delivered with scanned paper datasheets to USFWS and MDEP by **16 April 2015**.

Phase I QA/QC for Season databases will be completed and delivered with scanned paper datasheets to USFWS and MDEP by **22 May 2015**. Original paper datasheets should be delivered to USFWS by this date as well.

**Data Management Checklist (developed for working use based on above procedures)**

- Accept data from crews
  - Paper datasheets: legibility, initials, names, blanks, standard/non-standard, interrupts, mcl\_greater\_180
  - Download/synchronize electronic data from Juno
  - Move and rename manual photos from Juno onto PC
- Backup the Collection (Pendragon) database and photos folder
- Import the Collection (Pendragon) database into the Correction (QAQC I) database
- Import manual photos into Correction database
- Perform automated QAQC checks
  - Execute QAQC scripts
  - When possible, correct the record in the corresponding table
  - Update the error record
    - Old\_value, new\_value, resolution, resolver, error\_status
  - Update the paper datasheet, if needed
- Perform non-automated QAQC checks
  - Visually examine tables for missing or inconsistent values
  - Create error record, if necessary
  - When possible, correct the record in the corresponding table
  - Update the error record
    - Old\_value, new\_value, resolution, resolver, error\_status
  - Update the paper datasheet, if needed
  - Implement any remaining corrections from USFWS interim assessment
- Backup the Correction (QAQC I) database after each QAQC session
- Scan paper datasheets (follow naming conventions in Data Management Plan)
- Use Transect Tracking database to assign the date that transects were walked
- Deliver data weekly
  - Upload Collection, Correction (QAQC I), and scanned datasheets
  - Prepare hardcopy paper datasheets for delivery by 22 May 2015 to MDEP
  - Inform USFWS before any delay in weekly data delivery
- Review and respond to USFWS interim assessment
  - Implement all corrections for next delivery
  - Discuss recurring issues with crews

**Reference documents:**

- Data Management Plan (DMP)
- QAQC Specialist Training Materials
- Monitoring Handbook (for crew protocols only)

**Exhibit A**  
**Attachment 4**  
**Milestone/Deliverable/Invoicing Schedule Table**  
**Desert Tortoise Range-Wide Monitoring (Year 1)**  
**To Be Issued Upon Contract Award**

<b>Date Due</b>	<b>Deliverable / Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Amount Allowed</b>
January 2, 2016	M01	Contract Award and Mobilization	
January 30, 2016	M02	Project Kick Off Meeting	
March 30, 2016	M03	Training	
April 5, 2016	M04	Begin field Work	
April 5, 2016	D01	Quarterly Report	
April 13, 2016	D02	Digital Data Upload	
April 27, 2016	D03	Digital Data Upload	
May 11, 2016	D04	Digital Data Upload	
May 25, 2016	D05	Digital Data Upload	
May 30, 2016	M05	Completion of Gold Butte Survey (If Allowed to Work in the Area by BLM)	
May 30, 2016	M06	Completion of Field Work	
June 2, 2016	D06	Digital Data Upload (If Necessary)	
June 11, 2016	D07	Annual Project Data	
June 17, 2016	M07	Annual Debriefing Meeting	
July 5, 2016	D08	Quarterly report	
July 30, 2016	D09	Annual Report	
August TBD	D10	2016 Annual Project Review Presentation	
October 5, 2016	D11	Quarterly Report	
November 5, 2016	N/A	Year 1 Closeout	No fee
<b>TOTAL UP TO NOT-TO-EXCEED AMOUNT:</b>			

**Milestone/Deliverable/Invoicing Schedule Table**  
**Desert Tortoise Range-Wide Monitoring (Year 2)**  
**NEW PROJECT NUMBER WILL BE ASSIGNED FOR YEARS 2 – 5**

<b>Date Due</b>	<b>Deliverable / Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Amount Allowed</b>
December 5, 2016	M01	Mobilization Meeting	
January 5, 2017	D01	Quarterly Report	
March 30, 2017	M02	Training	
April 5, 2017	M03	Begin field Work	
April 5, 2017	D02	Quarterly Report	
April 12, 2017	D03	Digital Data Upload	
April 26, 2017	D04	Digital Data Upload	
May 10, 2017	D05	Digital Data Upload	
May 24, 2017	D06	Digital Data Upload	
May 30, 2017	M04	Completion of Gold Butte Survey (If Not Completed in Year 1 of the Project)	
May 30, 2017	M05	Completion of Field Work	
June 2, 2017	D07	Digital Data Upload (If Necessary)	
June 11, 2017	D08	Annual Project Data	
June 17, 2017	M06	Annual Debriefing Meeting	
June 30, 2017	D09	Biennium Summary Report	
July 5, 2017	D10	Quarterly Report	
July 30, 2017	D11	Annual Report	
August TBD, 2017	D12	2017 Annual Project Review Presentation	
October 5, 2017	D13	Quarterly Report	
November 5, 2017	N/A	Year 2 Closeout	No fee
TOTAL UP TO NOT-TO-EXCEED AMOUNT:			

**Milestone/Deliverable/Invoicing Schedule Table  
Desert Tortoise Range-Wide Monitoring (Year 3)**

<b>Date Due</b>	<b>Deliverable / Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Amount Allowed</b>
December 5, 2017	M07	Mobilization Meeting	
January 5, 2018	D14	Quarterly Report	
March 30, 2018	M08	Training	
April 5, 2018	D15	Quarterly Report	
April 7, 2018	D16	Digital Data Upload	
April 9, 2018	M09	Begin field Work	
April 18, 2018	D17	Digital Data Upload	
May 2, 2018	D18	Digital Data Upload	
May 16, 2018	D19	Digital Data Upload	
May 30, 2018	M10	Completion of Gold Butte Survey	
May 30, 2018	M11	Completion of Field Work	
June 2, 2018	D20	Digital Data Upload (If Necessary)	
June 11, 2018	D21	Annual Project Data	
June 17, 2018	M12	Annual Debriefing Meeting	
July 5, 2018	D22	Quarterly Report	
July 30, 2018	D23	Annual Report	
August TBD, 2018	D24	2018 Annual Project Review Presentation	
October 5, 2018	D25	Quarterly Report	
November 5, 2018	N/A	Year 3 Closeout	No fee
TOTAL UP TO NOT-TO-EXCEED AMOUNT:			

**Milestone/Deliverable/Invoicing Schedule Table  
Desert Tortoise Range-Wide Monitoring (Year 4)**

<b>Date Due</b>	<b>Deliverable / Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Amount Allowed</b>
December 5, 2018	M13	Mobilization Meeting	
January 5, 2019	D26	Quarterly Report	
March 30, 2019	M14	Training	
April 5, 2019	D27	Quarterly Report	
April 7, 2019	D28	Digital Data Upload	
April 8, 2019	M15	Begin field Work	
April 17, 2019	D29	Digital Data Upload	
May 1, 2019	D30	Digital Data Upload	
May 15, 2019	D31	Digital Data Upload	
May 30, 2019	M16	Completion of Gold Butte Survey (If Not Completed in Year 3 of the Project)	
May 30, 2019	M17	Completion of Field Work	
June 2, 2019	D32	Digital Data Upload (If Necessary)	
June 11, 2019	D33	Annual Project Data	
June 17, 2019	M18	Annual Debriefing Meeting	
June 30, 2019	D34	Biennium Summary Report	
July 5, 2019	D35	Quarterly Report	
July 30, 2019	D36	Annual Report	
August TBD, 2019	D37	2019 Annual Project Review Presentation	
October 5, 2019	D38	Quarterly Report	
November 5, 2019	N/A	Year 4 Closeout	No fee
TOTAL UP TO NOT-TO-EXCEED AMOUNT:			

**Milestone/Deliverable/Invoicing Schedule Table  
Desert Tortoise Range-Wide Monitoring (Year 5)**

<b>Date Due</b>	<b>Deliverable / Milestone #</b>	<b>Deliverable / Milestone Title</b>	<b>Amount Allowed</b>
December 5, 2019	M20	Mobilization Meeting	
January 5, 2020	D39	Quarterly Report	
March 30, 2020	M21	Training	
April 5, 2020	D40	Quarterly Report	
April 6, 2020	M22	Begin field Work	
April 15, 2020	D41	Digital Data Upload	
April 29, 2020	D42	Digital Data Upload	
May 13, 2020	D43	Digital Data Upload	
May 27, 2020	D44	Digital Data Upload	
May 30, 2020	M22	Completion of Gold Butte Survey	
May 30, 2020	M23	Completion of Field Work	
June 2, 2020	D45	Digital Data Upload (If Necessary)	
June 11, 2020	D46	Final Project Data	
June 17, 2020	M23	Annual Debriefing Meeting	
July 5, 2020	D47	Quarterly Report	
July 30, 2020	D48	Final Report	
August TBD, 2020	D49	Annual Project Review Presentation	
September 15, 2020	D50	Receipt Submittal (If Necessary)	
October 5, 2020	D51	Quarterly Report	
October 15, 2020	D52	Final Project Review Summary and Project Claim Release	
November 5, 2020	NA	Project Closeout	No fee
TOTAL UP TO NOT-TO-EXCEED AMOUNT:			

## EXHIBIT B

### INSURANCE REQUIREMENTS DESERT TORTOISE RANGE-WIDE MONITORING

TO ENSURE COMPLIANCE WITH THE CONTRACT DOCUMENT, CONSULTANT SHOULD FORWARD THE FOLLOWING INSURANCE CLAUSE AND SAMPLE INSURANCE FORM TO THEIR INSURANCE AGENT PRIOR TO PROPOSAL SUBMITTAL.

1. Format/Time: CONSULTANT shall provide COUNTY with Certificates of Insurance, per the sample format (page B-4), for coverages as listed below, and endorsements affecting coverage required by this Contract within **ten (10) business days** after COUNTY's written request for insurance. All policy certificates and endorsements shall be signed by a person authorized by that insurer and who is licensed by the State of Nevada in accordance with NRS 680A.300. All required aggregate limits shall be disclosed and amounts entered on the Certificate of Insurance, and shall be maintained for the duration of the Contract and any renewal periods.
2. Best Key Rating: COUNTY requires insurance carriers to maintain during the contract term, a Best Key Rating of A.VII or higher, which shall be fully disclosed and entered on the Certificate of Insurance.
3. COUNTY Coverage: COUNTY, its officers and employees must be expressly covered as additional insureds except on workers' compensation and professional liability insurance coverages. CONSULTANT'S insurance shall be primary as respects COUNTY, its officers and employees.
4. Endorsement/Cancellation: CONSULTANT'S general liability and automobile liability insurance policy shall be endorsed to recognize specifically CONSULTANT'S contractual obligation of additional insured to COUNTY and must note that COUNTY will be given thirty (30) calendar days advance notice by certified mail "return receipt requested" of any policy changes, cancellations, or any erosion of insurance limits. ***Separate copies of additional insured endorsements are required and must be attached to any certificate of insurance. Policy number must be referenced on endorsement or the form number must be referenced on certificate.***
5. Deductibles: All deductibles and self-insured retentions shall be fully disclosed in the Certificates of Insurance and may not exceed **\$25,000**. ***If the deductible is "zero" it must still be referenced on the certificate.***
6. Aggregate Limits: If aggregate limits are imposed on bodily injury and property damage, then the amount of such limits must not be less than **\$2,000,000**.
7. Commercial General Liability: Subject to Paragraph 6 of this Exhibit, CONSULTANT shall maintain limits of no less than **\$1,000,000** combined single limit per occurrence for bodily injury (including death), personal injury and property damages. Commercial general liability coverage shall be on a "per occurrence" basis only, not "claims made," and be provided either on a Commercial General Liability or a Broad Form Comprehensive General Liability (including a Broad Form CGL endorsement) insurance form. Policies must contain a primary and non-contributory clause and must contain a waiver of subrogation endorsement. ***A separate copy of the waiver of subrogation endorsement must be provided. A separate copy of the additional insured endorsement is required and must be provided for Commercial General Liability. Policy number must be referenced on endorsement or the form number must be referenced on certificate.***

8. Automobile Liability: Subject to Paragraph 6 of this Exhibit, CONSULTANT shall maintain limits of no less than **\$1,000,000** combined single limit per occurrence for bodily injury and property damage to include, but not be limited to, coverage against all insurance claims for injuries to persons or damages to property which may arise from services rendered by CONSULTANT and **any auto** used for the performance of services under this Contract. ***A separate copy of the additional insured endorsement is required and must be provided for Automobile Liability policies. Policy number must be referenced on endorsement or the form number must be referenced on certificate.***
9. Professional Liability: CONSULTANT shall maintain limits of no less than **\$1,000,000** aggregate. If the professional liability insurance provided is on a Claims Made Form, then the insurance coverage required must continue for a period of 2 years beyond the completion or termination of this Contract. Any retroactive date must coincide with or predate the beginning of this and may not be advanced without the consent of COUNTY.
10. Workers' Compensation: CONSULTANT shall obtain and maintain for the duration of this Contract, a work certificate and/or a certificate issued by an insurer qualified to underwrite workers' compensation insurance in the State of Nevada, in accordance with Nevada Revised Statutes Chapters 616A-616D, inclusive, provided, however, a CONSULTANT that is a Sole Proprietor shall be required to submit an affidavit (Attachment 1) indicating that CONSULTANT has elected not to be included in the terms, conditions and provisions of Chapters 616A-616D, inclusive, and is otherwise in compliance with those terms, conditions and provisions.
11. Failure To Maintain Coverage: If CONSULTANT fails to maintain any of the insurance coverages required herein, COUNTY may withhold payment, order CONSULTANT to stop the work, declare CONSULTANT in breach, suspend or terminate the Contract, assess liquidated damages as defined herein, or may purchase replacement insurance or pay premiums due on existing policies. COUNTY may collect any replacement insurance costs or premium payments made from CONSULTANT or deduct the amount paid from any sums due CONSULTANT under this Contract.
12. Additional Insurance: CONSULTANT is encouraged to purchase any such additional insurance as it deems necessary.
13. Damages: CONSULTANT is required to remedy all injuries to persons and damage or loss to any property of COUNTY, caused in whole or in part by CONSULTANT, their subcontractors or anyone employed, directed or supervised by CONSULTANT.
14. Cost: CONSULTANT shall pay all associated costs for the specified insurance. The cost shall be included in the price(s).
15. Insurance Submittal Address: All Insurance Certificates requested shall be sent to the Clark County Purchasing and Contracts Division, Attention: Insurance Coordinator. See the Submittal Requirements Clause in the RFP package for the appropriate mailing address.
16. Insurance Form Instructions: The following information must be filled in by the CONSULTANT'S Insurance Company representative:
  1. Insurance Broker's name, complete address, phone and fax numbers.
  2. CONSULTANT'S name, complete address, phone and fax numbers.
  3. Insurance Company's Best Key Rating
  4. Commercial General Liability (Per Occurrence)  
(A) Policy Number

- (B) Policy Effective Date
  - (C) Policy Expiration Date
  - (D) Each Occurrence (\$1,000,000)
  - (E) Damage to Rented Premises (\$50,000)
  - (F) Medical Expenses (\$5,000)
  - (G) Personal & Advertising Injury (\$1,000,000)
  - (H) General Aggregate (\$2,000,000)
  - (I) Products-Completed Operations Aggregate (\$2,000,000)
5. Automobile Liability (Any Auto)
- (J) Policy Number
  - (K) Policy Effective Date
  - (L) Policy Expiration Date
  - (M) Combined Single Limit (\$1,000,000)
6. Worker's Compensation
7. Professional Liability
- (N) Policy Number
  - (O) Policy Effective Date
  - (P) Policy Expiration Date
  - (Q) Aggregate (\$1,000,000)
8. Description: Number and Name of Contract (must be identified on the initial insurance form and each renewal form).
9. Certificate Holder:
- Clark County, Nevada  
c/o Purchasing and Contracts Division  
Government Center, Fourth Floor  
500 South Grand Central Parkway  
P.O. Box 551217  
Las Vegas, Nevada 89155-1217
10. Appointed Agent Signature to include license number and issuing state.



POLICY NUMBER: \_\_\_\_\_

COMMERCIAL GENERAL AND AUTOMOBILE LIABILITY

PROJECT NUMBER AND PROJECT NAME: \_\_\_\_\_

**THIS ENDORSEMENT CHANGED THE POLICY. PLEASE READ IT CAREFULLY**  
**ADDITIONAL INSURED – DESIGNATED PERSON OR ORGANIZATION**

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY AND AUTOMOBILE LIABILITY COVERAGE PART.

**SCHEDULE**

**Name of Person or Organization:**

CLARK COUNTY, NEVADA  
C/O PURCHASING & CONTRACTS DIVISION  
500 S. GRAND CENTRAL PKWY 4<sup>TH</sup> FL  
PO BOX 551217  
LAS VEGAS, NEVADA 89155-1217

(If no entry appears above, information required to complete this endorsement will be shown in the Declarations as applicable to this endorsement.)

WHO IS AN INSURED (Section II) is amended to include as an insured the person or organization shown in the Schedule as an insured but only with respect to liability arising out of your operations or premises owned by or rented to you.

CLARK COUNTY, NEVADA, ITS OFFICERS, EMPLOYEES AND VOLUNTEERS ARE INSUREDS WITH RESPECT TO LIABILITY ARISING OUT OF THE ACTIVITIES BY OR ON BEHALF OF THE NAMED INSURED IN CONNECTION WITH THIS PROJECT.

**ATTACHMENT 1**

**AFFIDAVIT**

**(ONLY REQUIRED FOR A SOLE PROPRIETOR)**

I, \_\_\_\_\_, on behalf of my company, \_\_\_\_\_, being duly sworn,

(Name of Sole Proprietor)

(Legal Name of Company)

depose and declare:

1. I am a Sole Proprietor;
2. I will not use the services of any employees in the performance of this Contract, identified as RFP No. 603847-15, entitled DESERT TORTOISE RANGE-WIDE MONITORING;
3. I have elected to not be included in the terms, conditions, and provisions of NRS Chapters 616A-616D, inclusive; and
4. I am otherwise in compliance with the terms, conditions, and provisions of NRS Chapters 616A-616D, inclusive.

I release Clark County from all liability associated with claims made against me and my company, in the performance of this Contract, that relate to compliance with NRS Chapters 616A-616D, inclusive.

Signed this \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_.

Signature \_\_\_\_\_

State of Nevada     )  
                                   )ss.  
 County of Clark    )

Signed and sworn to (or affirmed) before me on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_,

by \_\_\_\_\_ (name of person making statement).

Notary Signature

STAMP AND SEAL

STAMP AND SEAL

**EXHIBIT C**  
**SUBCONTRACTOR INFORMATION**

**DEFINITIONS**

MINORITY OWNED BUSINESS ENTERPRISE (MBE): An independent and continuing **Nevada** business for profit, which performs a commercially useful function and is at least 51% owned and controlled by one or more minority persons of Black American, Hispanic American, Asian-Pacific American or Native American ethnicity.

WOMEN OWNED BUSINESS ENTERPRISE (WBE): An independent and continuing **Nevada** business for profit, which performs a commercially useful function and is at least 51% owned and controlled by one or more women.

PHYSICALLY-CHALLENGED BUSINESS ENTERPRISE (PBE): An independent and continuing **Nevada** business for profit, which performs a commercially useful function and is at least 51% owned and controlled by one or more disabled individuals pursuant to the federal Americans with Disabilities Act.

SMALL BUSINESS ENTERPRISE (SBE): An independent and continuing **Nevada** business for profit which performs a commercially useful function, is **not** owned and controlled by individuals designated as minority, women, or physically-challenged, and where gross annual sales does not exceed \$2,000,000.

VETERAN OWNED ENTERPRISE (VET): A Nevada business at least 51% owned/controlled by a veteran.

DISABLED VETERAN OWNED ENTERPRISE (DVET): A Nevada business at least 51% owned/controlled by a disabled veteran.

EMERGING SMALL BUSINESS (ESB): Certified by the Nevada Governor's Office of Economic Development effective January, 2014. Approved into Nevada law during the 77th Legislative session as a result of AB294.

It is our intent to utilize the following MBE, WBE, PBE, SBE, VET, DVET and ESB subcontractors in association with this Contract:

1. Subcontractor Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Description of Work: \_\_\_\_\_  
Estimated Percentage of Total Dollars: \_\_\_\_\_  
Business Type: \_\_\_ MBE \_\_\_ WBE \_\_\_ PBE \_\_\_ SBE \_\_\_ VET \_\_\_ DVET \_\_\_ ESB

2. Subcontractor Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Description of Work: \_\_\_\_\_  
Estimated Percentage of Total Dollars: \_\_\_\_\_  
Business Type: \_\_\_ MBE \_\_\_ WBE \_\_\_ PBE \_\_\_ SBE \_\_\_ VET \_\_\_ DVET \_\_\_ ESB

3. Subcontractor Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Description of Work: \_\_\_\_\_  
Estimated Percentage of Total Dollars: \_\_\_\_\_  
Business Type: \_\_\_ MBE \_\_\_ WBE \_\_\_ PBE \_\_\_ SBE \_\_\_ VET \_\_\_ DVET \_\_\_ ESB

4. Subcontractor Name: \_\_\_\_\_  
Contact Person: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Description of Work: \_\_\_\_\_  
Estimated Percentage of Total Dollars: \_\_\_\_\_  
Business Type: \_\_\_ MBE \_\_\_ WBE \_\_\_ PBE \_\_\_ SBE \_\_\_ VET \_\_\_ DVET \_\_\_ ESB

No MBE, WBE, PBE, SBE, VET, DVET or ESB subcontractors will be used.

**INSTRUCTIONS FOR COMPLETING THE  
DISCLOSURE OF OWNERSHIP/PRINCIPALS FORM**

**Purpose of the Form**

The purpose of the Disclosure of Ownership/Principals Form is to gather ownership information pertaining to the business entity for use by the Board of County Commissioners ("BCC") in determining whether members of the BCC should exclude themselves from voting on agenda items where they have, or may be perceived as having a conflict of interest, and to determine compliance with Nevada Revised Statute 281A.430, contracts in which a public officer or employee has interest is prohibited.

**General Instructions**

Completion and submission of this Form is a condition of approval or renewal of a contract or lease and/or release of monetary funding between the disclosing entity and the appropriate Clark County government entity. Failure to submit the requested information may result in a refusal by the BCC to enter into an agreement/contract and/or release monetary funding to such disclosing entity.

**Detailed Instructions**

All sections of the Disclosure of Ownership form must be completed. If not applicable, write in N/A.

**Business Entity Type** – Indicate if the entity is an Individual, Partnership, Limited Liability Company, Corporation, Trust, Non-profit Organization, or Other. When selecting 'Other', provide a description of the legal entity.

**Non-Profit Organization (NPO)** - Any non-profit corporation, group, association, or corporation duly filed and registered as required by state law.

**Business Designation Group** – Indicate if the entity is a Minority Owned Business Enterprise (MBE), Women-Owned Business Enterprise (WBE), Small Business Enterprise (SBE), Physically-Challenged Business Enterprise (PBE), Veteran Owned Business (VET), Disabled Veteran Owned Business (DVET), or Emerging Small Business (ESB) . This is needed in order to provide utilization statistics to the Legislative Council Bureau, and will be used only for such purpose.

- **Minority Owned Business Enterprise (MBE):** An independent and continuing business for profit which performs a commercially useful function and is at least 51% owned and controlled by one or more minority persons of Black American, Hispanic American, Asian-Pacific American or Native American ethnicity.
- **Women Owned Business Enterprise (WBE):** An independent and continuing business for profit which performs a commercially useful function and is at least 51% owned and controlled by one or more women.
- **Physically-Challenged Business Enterprise (PBE):** An independent and continuing business for profit which performs a commercially useful function and is at least 51% owned and controlled by one or more disabled individuals pursuant to the federal Americans with Disabilities Act.
- **Small Business Enterprise (SBE):** An independent and continuing business for profit which performs a commercially useful function, is not owned and controlled by individuals designated as minority, women, or physically-challenged, and where gross annual sales does not exceed \$2,000,000.
- **Veteran Owned Business Enterprise (VET):** An independent and continuing Nevada business for profit which performs a commercially useful function and is at least 51 percent owned and controlled by one or more U.S. Veterans.
- **Disabled Veteran Owned Business Enterprise (DVET):** A Nevada business at least 51 percent owned/controlled by a disabled veteran.
- **Emerging Small Business (ESB):** Certified by the Nevada Governor's Office of Economic Development effective January, 2014. Approved into Nevada law during the 77th Legislative session as a result of AB294.

**Business Name (include d.b.a., if applicable)** – Enter the legal name of the business entity and enter the "Doing Business As" (d.b.a.) name, if applicable.

**Corporate/Business Address, Business Telephone, Business Fax, and Email** – Enter the street address, telephone and fax numbers, and email of the named business entity.

**Nevada Local Business Address, Local Business Telephone, Local Business Fax, and Email** – If business entity is out-of-state, but operates the business from a location in Nevada, enter the Nevada street address, telephone and fax numbers, point of contact and email of the local office. Please note that the local address must be an address from which the business is operating from that location. Please do not include a P.O. Box number, unless required by the U.S. Postal Service, or a business license hanging address.

**Number of Clark County Nevada Residents employed by this firm. (Do not leave blank. If none or zero, put the number 0 in the space provided.)**

**List of Owners/Officers** – Include the full name, title and percentage of ownership of each person who has ownership or financial interest in the business entity. If the business is a publicly-traded corporation or non-profit organization, list all Corporate Officers and Directors only.

**For All Contracts – (Not required for publicly-traded corporations)**

- 1) Indicate if any individual members, partners, owners or principals involved in the business entity are a Clark County full-time employee(s), or appointed/elected official(s). If yes, the following paragraph applies.

In accordance with NRS 281A.430.1, a public officer or employee shall not bid on or enter into a contract between a government agency and any private business in which he has a significant financial interest, except as provided for in subsections 2, 3, and 4.

- 2) Indicate if any individual members, partners, owners or principals involved in the business entity have a second degree of consanguinity or affinity relation to a Clark County full-time employee(s), or appointed/elected official(s) (reference form on Page 2 for definition). If **YES**, complete the Disclosure of Relationship Form. Clark County is comprised of the following government entities: Clark County, Department of Aviation (McCarran Airport), and Clark County Water Reclamation District. Note: The Department of Aviation includes all of the General Aviation Airports (Henderson, North Las Vegas, and Jean). **This will also include Clark County Detention Center.**

A professional service is defined as a business entity that offers business/financial consulting, legal, physician, architect, engineer or other professional services.

**Signature and Print Name** – Requires signature of an authorized representative and the date signed.

**Disclosure of Relationship Form** – If any individual members, partners, owners or principals of the business entity is presently a Clark County employee, public officer or official, or has a second degree of consanguinity or affinity relationship to a Clark County employee, public officer or official, this section must be completed in its entirety.

## DISCLOSURE OF OWNERSHIP/PRINCIPALS

<b>Business Entity Type (Please select one)</b>						
<input type="checkbox"/> Sole Proprietorship	<input type="checkbox"/> Partnership	<input type="checkbox"/> Limited Liability Company	<input type="checkbox"/> Corporation	<input type="checkbox"/> Trust	<input type="checkbox"/> Non-Profit Organization	<input type="checkbox"/> Other
<b>Business Designation Group (Please select all that apply)</b>						
<input type="checkbox"/> MBE	<input type="checkbox"/> WBE	<input type="checkbox"/> SBE	<input type="checkbox"/> PBE	<input type="checkbox"/> VET	<input type="checkbox"/> DVET	<input type="checkbox"/> ESB
Minority Business Enterprise	Women-Owned Business Enterprise	Small Business Enterprise	Physically Challenged Business Enterprise	Veteran Owned Business	Disabled Veteran Owned Business	Emerging Small Business
<b>Number of Clark County Nevada Residents Employed:</b>						
<b>Corporate/Business Entity Name:</b>						
<b>(Include d.b.a., if applicable)</b>						
<b>Street Address:</b>				<b>Website:</b>		
<b>City, State and Zip Code:</b>				<b>POC Name:</b>		
				<b>Email:</b>		
<b>Telephone No:</b>				<b>Fax No:</b>		
<b>Nevada Local Street Address:</b>				<b>Website:</b>		
<b>(If different from above)</b>						
<b>City, State and Zip Code:</b>				<b>Local Fax No:</b>		
<b>Local Telephone No:</b>				<b>Local POC Name:</b>		
				<b>Email:</b>		

All entities, with the exception of publicly-traded and non-profit organizations, must list the names of individuals holding more than five percent (5%) ownership or financial interest in the business entity appearing before the Board.

Publicly-traded entities and non-profit organizations shall list all Corporate Officers and Directors in lieu of disclosing the names of individuals with ownership or financial interest. The disclosure requirement, as applied to land-use applications, extends to the applicant and the landowner(s).

Entities include all business associations organized under or governed by Title 7 of the Nevada Revised Statutes, including but not limited to private corporations, close corporations, foreign corporations, limited liability companies, partnerships, limited partnerships, and professional corporations.

Full Name	Title	% Owned (Not required for Publicly Traded Corporations/Non-profit organizations)
_____	_____	_____
_____	_____	_____
_____	_____	_____

**This section is not required for publicly-traded corporations. Are you a publicly-traded corporation?**     Yes     No

1. Are any individual members, partners, owners or principals, involved in the business entity, a Clark County, Department of Aviation, Clark County Detention Center or Clark County Water Reclamation District full-time employee(s), or appointed/elected official(s)?
 

Yes     No    (If yes, please note that County employee(s), or appointed/elected official(s) may not perform any work on professional service contracts, or other contracts, which are not subject to competitive bid.)
  
2. Do any individual members, partners, owners or principals have a spouse, registered domestic partner, child, parent, in-law or brother/sister, half-brother/half-sister, grandchild, grandparent, related to a Clark County, Department of Aviation, Clark County Detention Center or Clark County Water Reclamation District full-time employee(s), or appointed/elected official(s)?
 

Yes     No    (If yes, please complete the Disclosure of Relationship form on Page 2. If no, please print N/A on Page 2.)

I certify under penalty of perjury, that all of the information provided herein is current, complete, and accurate. I also understand that the Board will not take action on land-use approvals, contract approvals, land sales, leases or exchanges without the completed disclosure form.

Signature	Print Name
Title	Date

## DISCLOSURE OF RELATIONSHIP

List any disclosures below:  
**(Mark N/A, if not applicable.)**

NAME OF BUSINESS OWNER/PRINCIPAL	NAME OF COUNTY* EMPLOYEE/OFFICIAL AND JOB TITLE	RELATIONSHIP TO COUNTY* EMPLOYEE/OFFICIAL	COUNTY* EMPLOYEE'S/OFFICIAL'S DEPARTMENT

\* County employee means Clark County, Department of Aviation, Clark County Detention Center or Clark County Water Reclamation District.

“Consanguinity” is a relationship by blood. “Affinity” is a relationship by marriage.

“To the second degree of consanguinity” applies to the candidate’s first and second degree of blood relatives as follows:

- Spouse – Registered Domestic Partners – Children – Parents – In-laws (first degree)
- Brothers/Sisters – Half-Brothers/Half-Sisters – Grandchildren – Grandparents – In-laws (second degree)

***For County Use Only:***

If any Disclosure of Relationship is noted above, please complete the following:

Yes  No Is the County employee(s) noted above involved in the contracting/selection process for this particular agenda item?

Yes  No Is the County employee(s) noted above involved in any way with the business in performance of the contract?

Notes/Comments:

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name  
Authorized Department Representative