

# STATEMENT OF WORK

## RC E Watershed Survey and Assessment

10 October 2011

### I. PREAMBLE

**SCOPE OF WORK AND LOCATION:** The objective of this project is to provide technical reach-back services including watershed evaluations and agricultural land treatment project scoping and analyses, using digital imagery data acquired by USACE during their watershed studies in eastern Afghanistan; from the National Geospatial Agency (NGA), and from miscellaneous sources. The supported area will be the GA ADT Area of Operations (AO) within RC-East. Other areas of Afghanistan where appropriate digital data is available may be included as directed by the Project Manager.

**A. QUALITY CONTROL:** The *Contractor* is responsible for the quality of all materials provided for the Project. Quality Control (QC) is defined as all activities encompassing all which makes the quality of the product what it should be (that is, reasonably serviceable for its intended purpose in keeping with prevailing standards in the industry).

#### **B. THE CONTRACTOR SHALL PERFORM THE FOLLOWING TASKS:**

Provide analyses and input for natural resource, agricultural, and watershed evaluation, prioritization, and project implementation throughout areas where processed data are available. These services are based on remote sensing, using existing color-infrared and natural color detailed imagery, elevation models, infrastructure and resource data, and client input.

The services may include a combination of the following:

- Candidate project identification through large scale review of geographic areas (remote sensing reconnaissance surveys) to focus further client investigation, using criteria such as potential project effectiveness, logistical practicality, project complexity, watershed quality, and potential agricultural benefits. This may also include planning maps to focus client field reviews, including road logs, flight points-of-interest, or route planning.
- Assistance with project development, including imagery and landscape review (slope, elevation, landforms, and perspective views) and development of proposed watershed restoration methods and quantities which will form the basis for water resources proposals. This may range from initial reviews to project design and specification.
- Technical assistance in writing of SOW's or RFP's for watershed restoration projects and help in reviewing submittals by contractors for that work, especially emphasizing work within the capabilities of qualified Afghan contractors.

- Assistance in developing and/or reviewing additional projects proposed by the GA ADT. Topics include watershed review and restoration identification, watershed restoration project planning, and improvement of existing infrastructure.
- Agricultural surveys and inventories in conjunction with field-proofing from the GA ADT. Agricultural inventories may include estimates of rain-fed vs. irrigated croplands, differentiation of early vs. late season cropland, reconnaissance evaluation of abandoned lands, assistance in farm plans, location of canal sources and canal breaches, evaluation of range land conditions, or others as requested within the capabilities of analysis tools and imagery.
- Potential irrigation dam site evaluations and watershed assessments to assist in determining dam life, stream stability, establishing inundation impacts, and mapping agricultural benefits.
- Time-related analyses with additional imagery, such as flood hazard evaluation, agricultural trends, watershed condition and trends, or infrastructure changes.
- On-the-job training to staff on methods used to evaluate, select, design, and implement watershed restoration and agricultural projects, as requested. Training will include appropriate use of other data sources including geologic and hydrologic literature.

The above work objectives can be modified during the project to account for changing conditions, data availability, and other reasons if a written agreement is completed, as long as the general nature of the work and required expertise is similar to the original agreement, and is within the budgeted time limits.

Project completion is dependent on access to imagery, elevation models, infrastructure data, and resource data. This is available for 95% of the geographical area comprising RC-East. Where data is not complete, the author will request additional data from RC-East staff.

- Coordinate all activities through the .
- POC for the is:

### **C. DELIVERABLES**

Deliverables will be defined by the client's needs and direction. Based on past experience these types of communications and reports have been useful:

- I.** Initial scanning and consultation concerning individual potential project areas.

- II. A report and map describing the models used, methods, data sources, existing watershed conditions, identified critical watersheds, selected project areas, project descriptions, and limitations of this analysis. Interim reports will be available as completed.
- III. Reports on requested review items emphasizing interim reports utilizing feedback from in-country personnel. Final reports will include project layout maps at appropriate scale showing contours overlain on imagery with proposed areas of construction and quantities to be constructed. Construction may include such restoration methods as terracing, stream-bank stabilization, plantings, check dams, rock bunds, gabion walls, etc., as deemed appropriate for the project area.
- IV. All maps and reports are submitted in electronic format.

**II. GENERAL PROVISIONS:**

- A. **STANDARDS:** Materials shall adhere to the approved design and this Statement of Work unless modified in writing by the PPO. The *Contractor* will not be compensated for any modifications unless it receives written authorization from the PPO/PM to make such modification(s) before performing the work.
- B. **PERFORMANCE PERIOD:** Upon receipt of written Notice of Award or Contract Award, the *Contractor* shall begin work and complete the entire scope of work, including final review and project acceptance within 325 calendar days.
- C. **PROJECTED PAYMENT SCHEDULE:** Payments will be made to contractor based on work provided. Before any billable work begins the contractor must receive authorization from the PPO and clear description of requested material.

This is a time and materials study to be billed at the following rates:

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**Total:**

This project is based on extensive existing data already available to the author. No imagery costs are budgeted in this project section. No bulk image processing or acquisition is budgeted in this project section.

**D. CONTRACT MODIFICATIONS:** Should changes to the contract be required, a written modification will be prepared by the Contracting Officer authorizing the changes. Modifications may be bilateral (agreed on and signed in advance by both parties) or unilateral (implemented by the PPO/PM only). Unilateral modifications will typically be issued only for changes in design that do not affect the cost or scope of the contract. Should a unilateral modification be issued that results in an unanticipated change in scope of the Contract or overall Contract cost, the *Contractor* may seek relief by submitting a written Request for Equitable Adjustment (REA), detailing the *Contractor's* additional costs broken down into Direct Labor, Direct Materials, Overhead, and Profit. Based upon the REA submitted by the *Contractor*, the PPO will determine whether an adjustment to the Contract price is warranted and, if so, the proper amount. The PPO's decision on whether to honor a particular REA and, if so, in what amount, is final.

**E. COMMUNICATION / CORRESPONDENCE:**

1. Correspondence from the *Contractor*. All written correspondence from the *Contractor* to the PPO, including but not limited to bids, drawings, specifications, material submittals, reports, and any other contract documents, will be addressed to the PPO and emailed to the PPO. The *Contractor's* company name, address, phone number, and email address should be listed on the subject line.
2. Verbal Communication with the *Contractor*. For the purposes of articles in this Statement of Work and Technical Specification, the *Contractor* will only take direction from the officers or individuals listed in this Agreement. The *Contractor* is not authorized to deviate from the contract Statement of Work and Technical Specifications, unless guidance is given in writing by contract modification or written correspondence from the Contracting Officer or the PPO, as applicable.
3. Points of Contact. Individual points of contact for this contract on behalf of each of the parties will be as follows:

PROJECT PURCHASING OFFICER:

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PROJECT MANAGER:

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CONTRACTOR:

Henry Shovic, PhD  
Shovic Associates, LLC  
406 570 7946  
[hshovic@bridgeband.com](mailto:hshovic@bridgeband.com)