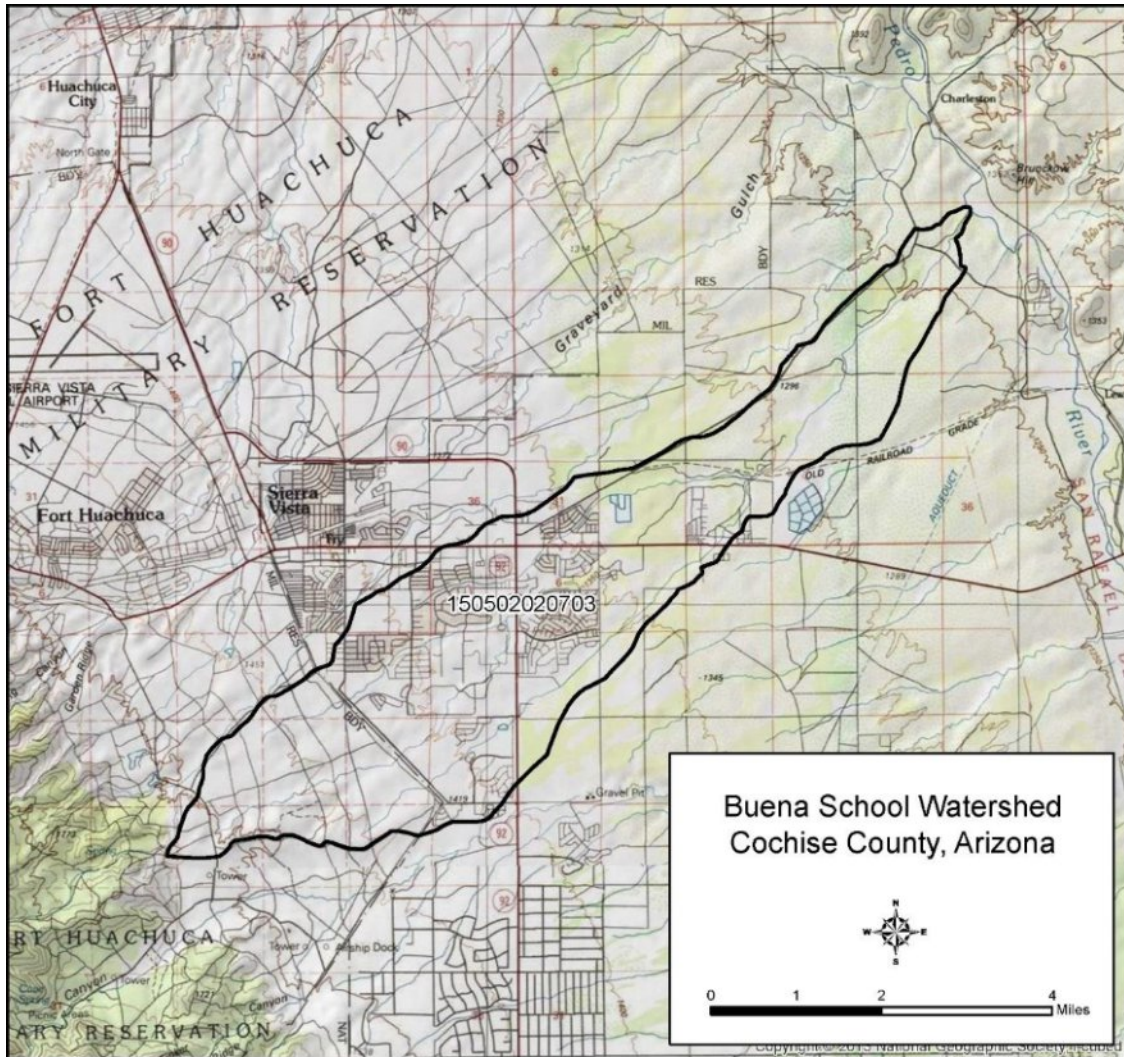


STATEMENT OF WORK

Preparation of Watershed Plan and Environmental Assessment For the Buena School Watershed Cochise County, Arizona



**Sponsored By:
Cochise County**

**Assisted By:
United States Department of Agriculture
Natural Resources Conservation Service**

STATEMENT OF WORK

Preparation of Watershed Plan and Environmental Assessment For the Buena School Watershed Cochise County, Arizona

1.0 BACKGROUND

Cochise County and the USDA-Natural Resources Conservation Service (NRCS) require a Watershed Plan/Environmental Assessment (Plan/EA) for the Buena School Watershed located in Cochise County, Arizona. The authority for preparation of the Plan/EA is the Watershed Protection and Flood Prevention Act (Public Law 83-566).

The Buena School Watershed (Hydrologic Unit Code 150502020703) is a sub-watershed of the San Pedro River Basin. This sub-watershed is experiencing critical erosion, flooding and sedimentation problems. San Pedro River base flows are declining, resulting in habitat loss for threatened and endangered species. There is a need to plan and implement conservation measures to address these resource concerns. The purposes of the proposed project include: flood prevention through reduced runoff; watershed protection through improved riparian habitat; and agricultural water management through groundwater recharge.

The Contractor shall coordinate closely with Cochise County and NRCS for preparation of the Watershed Plan/EA. Cochise County is the sponsoring local organization for this planning effort. The NRCS is providing technical and financial assistance to Cochise County (hereafter referred to as Sponsor) for preparation of the Plan/EA. The Sponsor is the contracting authority and will award a contract and issue task orders for this purpose.

The NRCS Watershed Program requires the development of a physically, environmentally, socially, and economically sound improvement plan. A Plan/EA will be developed as the first component of the proposed project. Measures to be proposed and evaluated in the Plan/EA will be considered with public input and prioritized through the Sponsor and NRCS.

2.0 GENERAL

The purpose of this Statement of Work (SOW) is to prepare a Watershed Plan/Environmental Assessment (Plan/EA) to document the need and feasibility of a project to address identified natural resources concerns and opportunities within the study area (Buena School Watershed – HUC 150502020703) in Cochise County, Arizona. Planning-level preliminary engineering designs will also be developed to accurately define and evaluate alternatives proposed in the Plan/EA for technical feasibility.

The Plan/EA shall be prepared in accordance with the Watershed Protection & Flood Protection Act (Public Law 83-566), the National Environmental Policy Act (NEPA), the Principles and Requirements for Federal Investments in Water Resources (PR&G), the NRCS National Watershed Program Manual (NWPM) and National Watershed Program Handbook (NWPB), and all other applicable laws, regulations, and policies. All planning activities shall be conducted in coordination with the Sponsor and NRCS.

3.0 SCHEDULE AND COORDINATION

3.1 SCHEDULE

All tasks for this SOW shall be completed within six months of the Notice to Proceed (NTP). Contractor shall develop a proposed schedule for implementation of this SOW using a chart (e.g. Gantt chart) that contains the beginning and end dates for each major task, completion dates for all required submittals, and coordination meeting dates. Contractor shall submit the proposed schedule to the Sponsor for review and acceptance within ten days of the NTP. Contractor shall submit an updated schedule to the Sponsor on a monthly basis.

3.2 PROJECT MANAGERS

Contractor shall designate a Project Manager. The Project Manager shall be the official point of contact between the Contractor and the Sponsor and NRCS regarding issues of scope interpretation, project performance, and the resolution of review comments. The preferred method for communications is electronic mail.

CONTRACTOR:

Name

Title

Company

Phone

Email

SPONSOR

Name

Title

Company

Phone

Email

NATURAL RESOURCES CONSERVATION SERVICE:

Dave Beyman

State Conservation Engineer

USDA-NRCS

602-285-6351

david.beyman@az.usda.gov

3.3 COORDINATION MEETINGS

Monthly coordination meetings between the Contractor and the Sponsor shall be held for the duration of the SOW. Contractor shall make meeting arrangements and prepare and submit to the Sponsor meeting minutes.

3.4 PROGRESS REPORTS

Contractor shall prepare and submit to the Sponsor monthly progress reports that briefly discuss project activities and contain the following:

- A description of the significant work accomplished during the reporting month, including approximate percent completed.
- A description of the work to be accomplished in the following month.
- A description of any issues encountered and actions taken.

3.5 INVOICES

Contractor shall submit invoices to the Sponsor on a monthly basis. Contractor shall maintain a spreadsheet in support of the invoices indicating the personnel and hours worked, the amounts previously billed, the amount currently being billed, and the amount remaining. Contractor shall submit to the Sponsor the updated spreadsheet whenever an invoice is submitted.

3.6 OUT-OF-SCOPE ITEMS

Contractor shall notify the Sponsor in writing of any potential work that is not within the SOW prior to the start of any such out-of-scope work. Contractor has sole responsibility to assure that no additional services beyond the SOW commences without written authorization from the Sponsor.

4.0 DATA COLLECTION AND ANALYSIS

4.1 DATA COLLECTION GENERAL

Contractor shall collect and review existing data and information concerning the study area from the Sponsor and NRCS and other appropriate agencies. Data collected shall include available information and reports on the soils and geology, hydrology and hydraulics, biological resources, cultural resources, demographics, and other resources associated with the study area.

4.2 SOILS AND GEOLOGICAL ANALYSIS

Contractor shall collect available soil and geological data and prior related investigations for the study area. Data shall include soil and geologic maps and other applicable information. Contractor shall analyze and summarize existing data and reports and develop recommendations regarding any new or updated planning-level soil and geological investigations that are needed for development of the Plan/EA.

4.3 HYDROLOGY AND HYDRAULICS ANALYSIS

Contractor shall collect available hydrologic and hydraulic (H&H) data and prior related investigations for the study area. Data shall include precipitation studies,

hydraulic evaluations, and other applicable information. Contractor shall analyze and summarize existing data and reports and develop recommendations regarding any new or updated planning-level H&H investigations that are needed for development of the Plan/EA.

4.4 BIOLOGICAL RESOURCES ANALYSIS

Contractor shall collect available biological resources data and prior related investigations for the study area. Data shall include plant and wildlife inventories, threatened and endangered species and critical habitat within the study area, and other applicable information. Contractor shall analyze and summarize existing data and reports and develop recommendations regarding any new or updated planning-level biological investigations that are needed for development of the Plan/EA.

4.5 CULTURAL RESOURCES ANALYSIS

Contractor shall collect available cultural resources data and prior related investigations for the study area. Data shall include cultural resources inventories and other applicable information. Contractor shall analyze and summarize existing data and reports and develop recommendations regarding any new or updated planning-level cultural resources investigations that are needed for development of the Plan/EA.

4.6 SOCIAL AND DEMOGRAPHICS ANALYSIS

Contractor shall collect available social and demographics data and reports for the study area. Contractor shall analyze and summarize US Census Data for the study area and develop a discussion on population and demographic characteristics. Contractor shall include information on racial and ethnic populations and limited income populations in the study area.

4.7 DATA COLLECTION AND ANALYSIS MEMORANDUM

4.7.1 Draft Memorandum. Contractor shall prepare a Draft Data Collection and Analysis Memorandum listing all existing data and information collected with brief descriptions and sources. The memo shall also identify any significant data gaps and recommendations regarding any new or updated planning-level investigations that are needed for development of the Plan/EA. Contractor shall submit the Draft Memorandum to the Sponsor in electronic format and two hard copies for review. Supporting documentation shall also be submitted.

4.7.2 Final Memorandum. Contractor shall address comments received from the Sponsor and incorporate into a Final Data Collection and Analysis Memorandum. Contractor shall submit the Final Memorandum to the Sponsor in electronic format and two hard copies.

5.0 ALTERNATIVES FORMULATION AND EVALUATION

5.1 PRELIMINARY ALTERNATIVES

Contractor shall formulate and evaluate all reasonable preliminary alternatives to address the goal(s) of the Sponsor and to meet the purpose and need for project

action. Contractor shall document each preliminary alternative with a narrative description and a preliminary cost estimate for implementation. Narratives shall identify strengths, weaknesses, opportunities and constraints of each alternative.

5.2 PRELIMINARY ALTERNATIVES MEMORANDUM

5.2.1 Draft Memorandum. Contractor shall summarize the results of the preliminary alternatives evaluation in a Draft Preliminary Alternatives Memorandum. Contractor shall submit the Draft Memorandum to the Sponsor in electronic format and two hard copies for review. Supporting documentation shall also be submitted.

5.2.2 Final Memorandum. Contractor shall address comments received from the Sponsor and prepare a Final Preliminary Alternatives Memorandum. Contractor shall submit the Final Memorandum to the Sponsor in electronic format and two hard copies.

5.3 PRELIMINARY ALTERNATIVES WORKSHOP

Contractor shall arrange for and facilitate a half-day workshop with the Sponsor and NRCS to present the preliminary alternatives, identify any other feasible alternatives, and select the alternatives for detailed study.

5.4 SELECTED ALTERNATIVES EVALUATION

Contractor shall further evaluate the alternatives selected for detailed study. Contractor shall document each selected alternative with an expanded narrative description, conceptual drawings, and a refined cost estimate for implementation. Narratives shall expand upon the strengths, weaknesses, opportunities and constraints of each alternative. Narratives shall also describe the environmental effects of each alternative.

Contractor shall develop planning-level preliminary engineering designs to accurately define and evaluate selected alternatives for technical feasibility. Conceptual drawings shall provide a plan view and include approximate locations of structures and other features for each selected alternative.

5.5 ECONOMIC ANALYSIS

Contractor shall conduct an economic analysis for the alternatives selected for detailed study along with the no-federal-action (future without project) alternative. Contractor shall complete a benefit-cost analysis for each alternative to evaluate the economic, social, and environmental effects that are quantified (monetized and non-monetized) and those that are qualitative. Contractor shall identify the alternative that reasonably maximizes the net benefits.

5.6 SELECTED ALTERNATIVES MEMORANDUM

5.6.1 Draft Memorandum. Contractor shall summarize the results of the selected alternatives evaluation in a Draft Selected Alternatives Memorandum. The Draft Memorandum shall be submitted to the Sponsor in electronic format and two hard copies for review. Supporting documentation shall also be submitted.

5.6.2 Final Memorandum. Contractor shall address comments received from the Sponsor and prepare a Final Selected Alternatives Memorandum. Contractor shall submit the Final Memorandum to the Sponsor in electronic format and two hard copies.

5.7 PREFERRED ALTERNATIVE SELECTION WORKSHOP

Contractor shall arrange for and facilitate a half-day workshop with the Sponsor and NRCS to present the results of the selected alternatives evaluation and to identify the preferred alternative for the Plan/EA.

5.8 PREFERRED ALTERNATIVE DOCUMENTATION

Contractor shall fully document the preferred alternative, including a detailed narrative description, the rationale for alternative preference, measures to be installed, mitigation features, permits and compliance, costs and cost sharing, installation and financing, operation and maintenance, and NRCS tables (refer to NWPM and NWPB for full requirements).

6.0 PUBLIC PARTICIPATION

Contractor shall coordinate with the Sponsor to arrange for and facilitate two public meetings during development of the Plan/EA. Contractor shall provide pertinent presentations, exhibits, and handouts for the public meetings. Contractor shall prepare sign-in sheets and summary notes of each public meeting. Contractor shall prepare and submit to the Sponsor a “Public Participation Notebook” to contain all information concerning the meetings, such as: presentations, exhibits, handouts, public notices, sign-in sheets, notes, and any other pertinent material.

6.1 Public Meeting No.1. This meeting shall be held during preliminary planning. The purpose of the meeting is to inform the public about the planning effort and to scope issues to be considered during development of the Plan/EA.

6.2 Public Meeting No 2. This meeting shall be held following submittal of the Draft Plan/EA. The purpose of the meeting is to present the preferred alternative and to invite comments.

7.0 WATERSHED PLAN AND ENVIRONMENTAL ASSESSMENT DOCUMENT

Contractor shall prepare the Watershed Plan and Environmental Assessment (Plan/EA) document for the Buena School Watershed. The content and format of the Plan/EA shall be in accordance with the NWPM and NWPB and shall include the following major sections and subsections (refer to NWPM and NWPB for full requirements):

- Cover
- Abstract
- Watershed Agreement (excluded from preliminary and draft documents for external distribution)

- Table of Contents
- Summary (OMB Fact Sheet)
- Purpose and Need for Action
- Scope of the EA
- Affected Environment
- Alternatives (including relevant issues and concerns identified through scoping)
 - Alternatives considered but eliminated from detailed study
 - No-Action Alternative (the most likely future condition if none of the federally assisted action alternatives are selected)
 - Action Alternatives (may be a combination of alternatives)
 - Other reasonable alternatives
- Environmental Consequences
- Effects of each alternative (include context and intensity) on the relevant issues and concerns identified through scoping
- Consultation, Coordination, and Public Participation
- The Preferred Alternative (including Tables 1-6)
- References
- List of Preparers
- Distribution List
- Index
- Appendices
 - Appendix A — Comments and Responses
 - Appendix B — Project Map
 - Appendix C — Support Maps
 - Appendix D — Investigation and Analysis Report
 - Appendix E — Other Supporting Information

7.1 PRELIMINARY PLAN/EA

Contractor shall prepare the Preliminary Plan/EA document. Contractor shall submit the Preliminary Plan/EA document in electronic format and two hard copies to the Sponsor. The Sponsor, in cooperation with the NRCS, will distribute the Preliminary Plan/EA for internal review. Comments received will be forwarded by the Sponsor to the Contractor. Contractor shall submit to the Sponsor written responses to the review comments. Contractor shall incorporate applicable resolved comments into the Draft Plan/EA.

7.2 DRAFT PLAN/EA

Contractor shall prepare the Draft Plan/EA document. Contractor shall submit the Draft Plan/EA document in electronic format and two hard copies to the Sponsor. The Sponsor, in cooperation with the NRCS, will distribute the Draft Plan/EA for public and interagency review and comment. Comments received will be forwarded by the Sponsor to the Contractor. Contractor shall submit to the Sponsor written responses to the review comments. Contractor shall incorporate applicable resolved comments into the Final Plan/EA.

7.3 FINAL PLAN/EA

Contractor shall prepare the Final Plan/EA document. Contractor shall submit the Final Plan/EA document in electronic format and two hard copies to the Sponsor for final review and acceptance. Upon acceptance, the Sponsor, in cooperation with the NRCS, will distribute the Final Plan/EA to applicable parties.

8.0 DELIVERABLES

Contractor shall submit all documents in both Microsoft Word and PDF formats. Contractor shall submit one electronic file and two hard copies of each Memorandum (Draft and Final) and the Watershed Plan and Environmental Assessment (Preliminary, Draft and Final). The final deliverable under this SOW shall include electronic media (e.g. USB drive) containing all final documents and all supporting documentation.

9.0 SPONSOR AND NRCS DATA AND REFERENCES

The Sponsor and NRCS will provide to the Contractor any available GIS data, studies, reports, or references that may be useful to the Contractor in developing the Plan/EA. Following is a partial list of NRCS reference materials pertinent to the preparation of the Plan/EA.

- [NRCS National Engineering Manual](#)
- [NRCS National Watershed Program Manual](#)
- [NRCS National Watershed Program Handbook](#)
- [Principles and Requirements for Federal Investments in Water Resources](#)
- [USDA Guidance for Conducting Analyses Under the Principles, Requirements, and Guidelines for Water and Land Related Resources Implementation Studies](#)

10.0 OPTIONAL TASKS

During the process of completion of this SOW, additional work may become necessary to complete the Plan/EA. Optional tasks must be authorized in writing by the Sponsor based upon needs identified during development of the Plan/EA. If the Sponsor determines that additional work is needed the Contractor shall prepare and submit to the Sponsor a proposed Statement of Work and fee for review and approval.