# Web Usability Consulting for ERS GIS Products

# Statement of Work

# [Date]

## Background

The Economic Research Service is one of four agencies in the Research, Education, and Economics (REE) Mission Area of the U.S. Department of Agriculture. The agency has approximately 500 employees and is the main source of economic information from USDA. Its mission is to inform and enhance public and private decision-making on economic and policy issues related to agriculture, food, natural resources, and rural development. To accomplish this mission, ERS economists and social scientists develop and disseminate economic, social scientific, and statistical information to the public. The program encompasses research; analyses of food and commodity markets; policy studies; development of estimates, forecasts, and other economic and statistical indicators; and development of data sets compiled from diverse sources.

One of ERS Online’s most important services is to provide external customers with access to more than 9,000 data sets. In April 2003, the agency initiated a web data delivery improvement project to enhance ERS data products and their delivery via the web, ensuring that ERS data are easy to find, access, and download, and that data products provide a standard set of features that improve their usefulness and impact. Under this initiative, ERS has developed a facetted classification scheme for its data products, implemented a site archive for historical data products, launched a redesigned main data entry page ([www.ers.usda.gov/data](http://www.ers.usda.gov/data)), and begun implementation of the Corda PopCharts and OptiMap data visualization products. ERS is now seeking usability consulting support to ensure that GIS mapping products are presented and accessible by their intended audiences.

Web-based interactive mapping systems are becoming powerful tools for ERS users to access and visualize complex information. ERS currently has 20XXX interactive data products, including 5X that incorporate sophisticated geospatial mapping features. Although all online systems can present usability challenges, these problems are even more pronounced in online mapping and interactive data display systems due to the increase in complexity that occurs when specialized functionality is added to a conventional web browser environment, and the inherent complexity of the content itself. Usability analysis and testing will increase the value of our mapping products by helping the agency present information in more effective ways, produce more consistent products with common features, and speed our development of products by providing standard visualization guidelines that can be easily modified to particular datasets.

## Goals

ERS requires contractor services to provide usability and standards development consulting support to the agency’s web-based GIS mapping visualization products. ERS wishes to employ the XXXX MethodTM  for the design, development, and implementation of a standard set of features to improve the usefulness and impact of the agency’s GIS mapping products. The XXXX MethodTM , an ISO certifiable process in the science of human factors engineering, is auser-centered design process that identifies the steps and strategies to support optimizing user-centered web designs.

## Tasks

This project has two tasks. The contractor shall provide reports, documentation and deliverables in written and electronic format and will provide monthly written progress reporting.

### Task 1: Project Kick-off & Definition

### FFP: $\_\_\_\_\_\_\_\_\_

The contractor shall hold a project kick-off workshop with ERS to assess the agency’s existing GIS mapping applications based on the XXXX MethodTM.

The contractor shall:

1. Facilitate a project kick-off workshop with the ERS Improved Data Delivery Working Group to:

* Review project expectations.
* Review scheduling and deliverables.
* Review the “top-level” project requirements and expectations of ERS in terms of roles, inputs, outputs, and overall information expectations.
* Identify existing and prospective users of ERS’ GIS mapping products in order to develop a thorough understanding of the target audience(s), their typical tasks, and their specific constraints. These users may include those represented by the ERS User Personas, ERS employees (analysts), and analysts at other federal agencies (APHIS, FSA).
* Develop or review user profiles (list of user characteristics).
* Clarify the vision, mission, and goals for ERS GIS products (these may vary according to audience).
* Link GIS data product objectives to ERS agency goals.
* Review high-level project plan and timeline.

**Task 1 Deliverables Date due: [Date]**

1. Kick-off workshop.
2. 3 – 5 page memo summarizing workshop findings and recommendations.

### Task 2: Usability Analysis, Testing, & Staff Review Session

### FFP: $\_\_\_\_\_\_\_\_\_\_

The contractor shall perform a diagnostic usability test of a particular ERS GIS product based on the XXXX MethodTM and hold a de-briefing session with ERS project stakeholders to review test results.

The contractor shall:

1. Teleconference with the ERS GIS Team to confirm GIS product for testing, along with key tasks, define the goals of testing, set successful completion criteria for tasks, and identify target users.
2. Work with ERS to draft a test script for one round of usability testing.
3. Provide ERS with up to two rounds of test script revisions based on comments from designated ERS staff.
4. Conduct one round of usability testing with 8 representative members of the GIS product, 4 users in two users groups.
5. ERS will be responsible for recruiting, screening, scheduling, and reimbursing representative users.

6. Compile and analyze usability testing results to develop a written report of findings, including screenshots, severity rankings of problems, identification of tradeoffs to resolve conflicting goals and proposals to resolve these conflicts, and recommendations for improvements to the GIS product.

7. Give onsite presentation of findings to the ERS Improved Data Delivery Working Group.

**Task 2 Deliverables Date due: [Date]**

* Draft and final usability testing script.
* Usability testing facilitation.
* Written usability testing report of findings.
* Verbal presentation, with accompanying MS PowerPoint slides, of findings based on usability testing report.
* Remaining time in day for consulting and brown bag lunch with GIS team.

## Place of Performance

Usability testing will be performed in a standard conference room at a government facility in the Washington, DC area provided by ERS, on dates identified by ERS.

**TOTAL FFP: $\_\_\_\_\_\_\_\_\_\_**