

IT Professional Technical Services Master Contract Program T#:902TS

Statement of Work (SOW) For Technology Services Issued By

Minnesota Department of Agriculture

Project Title: AgBMP Database Project

Service Categories:

Vendor must be approved in:

- Project Management; and
- At least one of the following: Architecture Planning and Assessment - Information/Data **OR** Architecture Planning and Assessment – Security **OR** Architecture Planning and Assessment – Technical; and
- At least one of the following: Database – Design / Architect **OR** Database – Oracle/MS SQL Server; and
- At least one of the following: Web Design & Development -HTML/XML/DHTML CSS JavaScript **OR** Web Applications Specialist – Java/JSP/Servlets **Or** Web Applications Specialist – .NET/ASP

Business Need

MN.IT Services @ Agriculture requests proposals from qualified vendors to **Design** or provide the client (MDA) with an **Over-the-Shelf** (if any) web-based loan accounting program, build, and install a web-based loan accounting program: **Web-based AgBMP Database Program (AgBMP-db)**. In case of Over-the-Shelf web-based application, the Vendor shall have resources to provide potential customizations if necessary, based upon Client's (MDA) requirements. This project will provide accounting, contracting, reporting, and recordkeeping support to the Minnesota Department of Agriculture's (MDA) Agricultural Best Management Practices Loan Program (AgBMP Loan Program). The Agricultural Best Management Practices Loan Program provides low interest loans through Local Government Units (LGUs) and Lenders to farmers, agriculture supply businesses, rural landowners, and water quality cooperatives to prevent local water pollution problems. The proposed project will allow the three different sets of Users: Local Government Units (LGUs), Lenders, and MDA Internal Staff to access the **AgBMP-db** program on a web-based platform and perform tasks respective to their security roles and rights. **AgBMP-db** will also include a geographic locating system, to record the location of a project using an online mapping component. The system will have procedures for the mapping component to provide with the Latitude & Longitude information, for the project site selected by the user on the mapping interface. The goal is to have a system that will be:

- Web-based,
- Highly Secure,
- User friendly,
- Fully Accessible
- Efficient to maintain,

- Have a capacity to maintain a large user database, and
- Allow users to generate reports pertaining to the AgBMP Program activity and status.

Currently the department has 65 LGUs and 250 Lenders that are associated with this program. The maximum number of participating LGUs and Lenders in the future is approximately 87 LGUs and 500 Lenders . MDA under the AgBMP Loan Program issues and manages repayments for 800 loans worth approximately \$13 million per year. The AgBMP Loan Program envisions a goal of issuing and managing approximately 1,000 loans worth \$20 million per year. Currently there are five appropriation sources providing funds to the program and there may be additional appropriation sources in the future. Each LGU has one current allocation assigned to it. The LGU's current allocation represents their budget from the multiple funding sources to implement multiple categories of eligible pollution prevention practices. To date, approximately 11,000 loans totaling \$175 million have been issued under the AgBMP Loan Program. The number of loans will continue to increase in the future. Currently \$70 million (sum of funding, from all 5 funding sources) are available to the account. The goal is to reach to \$140 million in the corpus of the revolving account.

Goal:

If a COTS solution is recommended, a different solicitation would be issued to procure that solution. (hardware and software cannot be purchased through the 902TS program.)

It is the goal of the **AgBMP-db** project that the MDA will have an integrated accounting and tracking system on a web-based platform to fulfill the respective needs of the three user groups (LGUs, Lenders & MDA Internal Staff). The system will support:

- Appropriations to the AgBMP Loan Program
- Allocations to LGUs,
- Loan approval by LGUs,
- Loan issuance to Lenders,
- Repayment tracking from Lenders to MDA, and
- Reporting as required or requested by all user groups

[Note: IT Accessibility Standards apply. See 'IT Accessibility Standards']

Current Business Requirements:

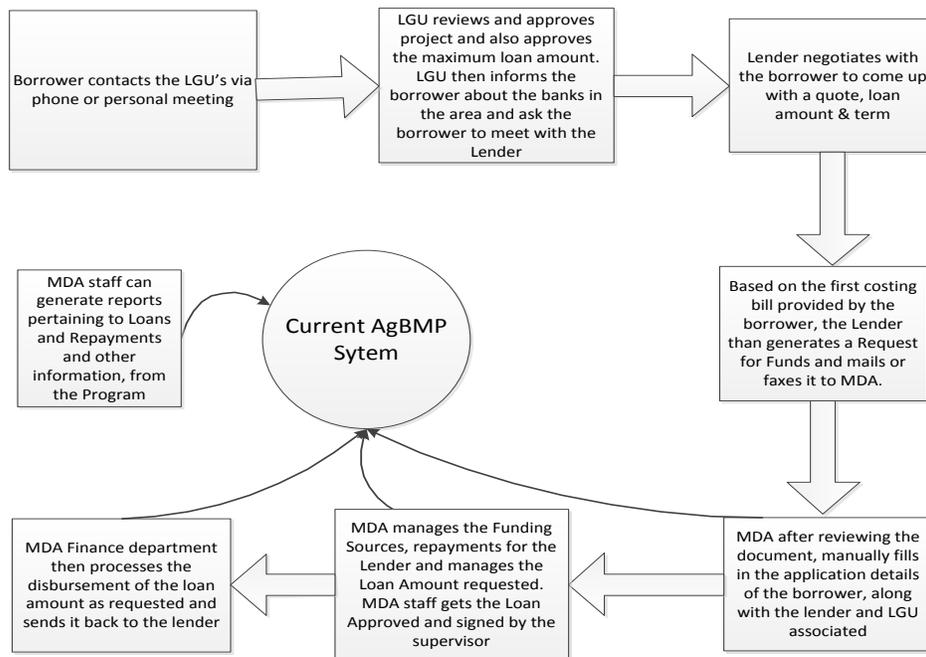
Currently there is only one user group, MDA Internal Staff, interacting with the existing AgBMP database program. The existing program runs on Microsoft Visual FoxPro. The following is the current business process:

1. Borrower contacts by phone or personal meeting the LGU for their respective area to apply for a loan.
2. LGU meets with potential Borrower, reviews project details, determines project eligibility, and if eligible and funds are available, approves the project and set the maximum loan amount that will be available for the project.
3. LGU prints out a standard loan application form and manually fills in the details of the loan and project and hands it to the Borrower (to take to one of the Lenders from the list of lenders that LGU works with).

4. Once the LGU approves the project and determines the maximum loan amount, which currently cannot exceed \$ 100,000, the LGU provides a list of participating Lenders that the Borrower may contact in order to finance the project as approved.
5. The LGU may inform a preferred Lender (preferred either by the Borrower or LGU itself) by phone, fax, or email about the approved project and may forward a copy of the loan application form.
6. Borrower takes the application form and meets a Lender of their choice, to get the loan reviewed and approved by the Lender.
7. The Lender reviews the qualifications of the Borrower in accordance with their internal underwriting criteria to determine if they wish to issue a loan. If they determine they will issue a loan, the Borrower may proceed with the project and incur costs.
8. The Lender receives documentation of incurred costs (such as invoices, costing bills, or purchase agreements) from the Borrower.
9. Based on the cost documentation and other limitations set by the LGU and Lender, the Lender completes their portion of the loan application form to request funds. The loan application form and supporting documents are mailed, e-mailed, or faxed it to MDA's internal staff for payment.
10. MDA reviews the loan application, enters the project's detail and geographic location into the existing AgBMP database system, adjusts the LGU's allocations as necessary, increases LGU's allocations from available funding sources as necessary, and prepares the loan application documents for supervisor's approval.
11. The supervisor approves the loan application and the request for payment is forwarded to the MDA's Finance Department for their approval and disbursement of the requested loan amount. (AgBMP scope ends here)

All system reports are generated periodically and mailed by MDA Internal Staff to LGUs and Lenders on their request. The existing system provides no direct access or interface to any users, other than the MDA Internal Staff. The current database program is not fully compatible beyond the Windows XP Operating System and therefore must be restructured in respect to current technology and standards.

Fig:



1.1

Proposed Business Requirements:

MN.IT Services @ Agriculture requests proposals from qualified vendors to design, build, and install a web-based loan program: **Web-based AgBMP Database Program (AgBMP-db)**. This program will allow three different sets of Users:

- Local Government Units (LGUs),
- Financial Institutions (Lenders), and
- Internal Users (MDA Internal Staff)

Additional detailed Functional / Business Requirements are available upon request.

These groups will have access to the **AgBMP-db** program on a web-based platform and perform tasks respective to their security roles and rights. **AgBMP-db** will also include a geographic locating system, to record the location of a project using an online mapping component. The system will have procedures for the mapping component to store and provide the Latitude & Longitude information, for the Project site selected by the user on the mapping interface.

The goals of the System will be:

- Web-based
- User friendly
- Efficient to maintain
- Accessible according to Section 508 and WCAG 2.0 level AA accessibility standards

- Capacity to maintain a large user database
- Secure based upon all State of MN requirements and laws; Federal requirements and laws
- Accurately account for all funds in the various accounts and various appropriations, and
- Allow MDA Internal Staff and other Users to generate existing and custom reports pertaining to the AgBMP Program for themselves and other interested parties.

The Agricultural Best Management Practices is a loan program that provides low interest loans through LGUs and Lenders to farmers, agriculture supply businesses, rural Landowners, and water quality cooperatives to prevent water pollution, improve water quality, and address other local environmental concerns by assisting LGUs and Borrowers to implement their agricultural and rural development plans. Currently the department has 65 LGUs and 250 Lenders that it is associated within this program. These Users may grow to 87 LGUs and 500 Lenders respectively. The MDA through **AgBMP-db** program issues and manages repayments for 800 loans per year worth \$13 million. AgBMP has a goal of issuing and managing approximately 1000/year loans worth \$20 million. To date approximately 11,000 loans valued at \$175 million have been issued under the AgBMP Program.

Currently, a total of \$70 million from multiple (five) funding Sources is assigned to various LGU accounts. The long term goal is to reach to \$140 million.

The system to be developed will comply with the following process to be performed in the proposed system (AgBMP Loan Program).

1. Legislature appropriates funds to AgBMP Loan Program.
2. AgBMP prepares and awards budgets for each LGU based on information from annual reports and previously collected data (Lender repayments, overall funding for the Program, and new appropriations).
3. Funds are allocated to each eligible LGU through pre-determined policies and formulas.
4. The Borrower will contact the LGU for a loan application.
5. The LGUs and Lenders can login the **AgBMP-db** program, with the Username and Password provided by MDA, to:
 - a. Enter, edit, or review a Borrower's project information.
 - b. Review the funds available for loaning.
 - c. Approve the eligibility of a project for potential funding.
 - d. The system shall not allow LGU's to issue loans in excess of program limits (currently \$100,000) or in excess of LGU's budget.
6. LGU can print the Loan Application form with specific Borrower and project information and can e-mail via secure, encrypted email a copy of the partially completed form to a preferred Lender (either LGU's or Borrowers choice).
7. Preferred Lender receives an e-mail from the LGU. Other Lenders can also view the loan application online on the **AgBMP-db** program.
8. Lender can accept a project for loan consideration, enter specific loan terms, and upload supporting project documentation.
9. The **AgBMP-db** program generates and sends to MDA a request for funds upon Lender approval, based on the cost incurred documents received from the Borrower.
10. MDA receives the loan application (MDA acceptance) with the information about the loan and Borrower already filled on it.
11. MDA assigns a funding source and makes necessary changes to the loan application if required, prints out the form, and gets supervisors' approval signature (MDA Approval).
 - a. The **AgBMP-db** program shall have the potential (in future) of migrating to an automated loan approval process, performed by the supervisory authority.
12. The approved loan application is forwarded to the MDA Finance Department for their approval and disbursement of the loan amount. (**AgBMP-db** scope ends here)

- a. The system shall be able to generate and send project documents and status reports (as PDF documents) to the MDA Finance Department, LGUs and Lenders. These report include:
 - SWIFT Disbursement Request to MDA Finance Department
 - Notice to LGU and Lender of project approval by MDA
 - Notice to Lender of eminent disbursement to be made.
13. Loan amortization schedule is calculated based on pre-defined formulas.
14. Lenders are billed for repayments due in accordance with loan amortization schedules.

The **AgBMP-db** program shall be able to recognize each User based on his/her Log-In credentials and User security rights.

The Proposed System shall be of capable of generating formatted reports, required at multiple steps throughout the **AgBMP-db** accounting process for analysis and program monitoring.

The **AgBMP-db** program will not be directly accessible by the public or other User Groups; however, data from the system may be generated by the system in formatted and unformatted reports upon request by interested parties to the authorized system users.

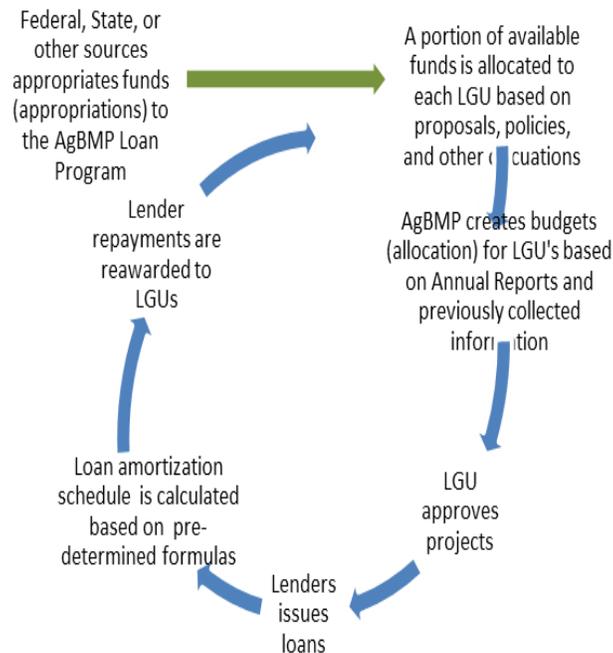


Fig 1.2

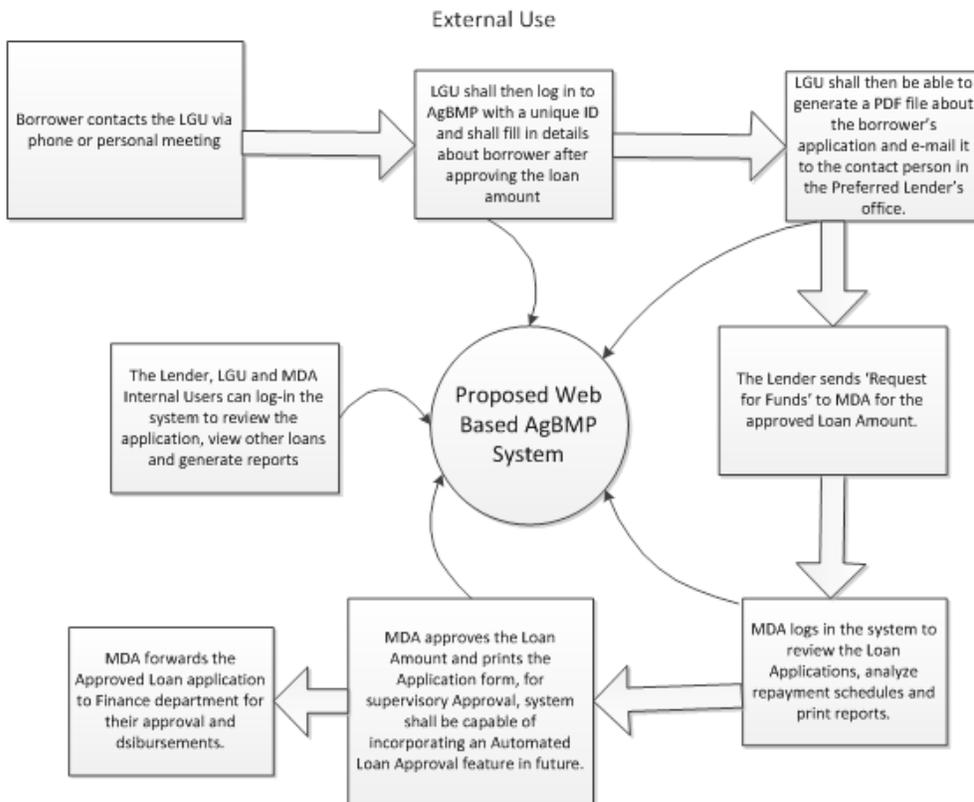


FIG 1.3

Functional Requirements:

Proposed System will be a web-based platform for an improved version of the existing *AgBMP-db* program.

The new system will:

- Provide a record of previously issued loans,
- Record new loans issued,
- Track all appropriations, repayments, and funds in the program, and
- Generate reports (as required).

System will allow 3 different User groups to interact with it:

- Local Government Units (LGU),
- Lenders, and
- MDA Internal Staff.

The ***AgBMP-db*** program shall be user friendly, flexible and secure to incorporate potential future changes made to it. The Proposed System will be compatible with newer technology and operating systems, such as JAVA, current web browsers, and Windows 7.

The newer system will also have a better database management system. The workflow of proposed ***AgBMP-db*** program will make the current process faster, efficient and intuitive.

IT Accessibility Standards:

The ***AgBMP-db*** program shall comply with Accessibility requirements as identified in the State of Minnesota Standards Accessibility Standard document found at http://mn.gov/oet/images/TA_S_Accessibility_2011-04029.pdf. In part, this incorporates both Section 508 of the Rehabilitation Act and Web Content Accessibility Guidelines 2.0 level "AA". This includes web sites, software applications, electronic reports and output documentation, and training delivered in electronic formats (e.g. documents, videos, and webinars).

Users:

Primary Users: LGUs, Lenders and MDA Program Managers.

Secondary Users: Other MDA Internal Staff

There will be no interaction for the new system with the outside consumers except LGUs and Lenders.

Account Management:

Currently the only Users of the existing *AgBMP* database program are some members of MDA Internal Staff. In the new system, the LGUs, Lender, and an expanded selection of MDA Internal Staff will all have access accounts, with which they can access the system. The new system will have initially, the 65 LGUs, 250 Lenders and 4 primary and 3 secondary MDA Internal Staff as User Groups. Each user group may have multiple users and each user will have an account and password. The new system will have:

- Ability to generate new accounts for all the existing and future Users. These accounts will be activated and managed by the MDA Internal Staff.
- Ability to incorporate an audit process and security review of users and roles.
- Ability to generate automated Usernames and Passwords for every account. The system will allow the User to create a new password to overwrite the 'old system generated Password'. Passwords will be stored in an encrypted format in the database.
- System will comply with the following Data Definitions:
 - **User Name: First Letter of First Name** (Uppercase) and **Full Last Name** (lowercase), Max 20, **Mandatory Field**

- **Password:** Minimum of 8 characters, include combination of alpha, numeric and special characters. For example: A\$b13%5&, **Mandatory Field**
- Ability for external User to request the MDA Internal Staff for resetting the old Password, by sending an e-mail alert to MDA Internal Staff from within the scope of the system to reset the old password.
- Ability for Users to access and share data information between LGUs and Lenders including loan information, contact information, reports, and other data.
- Ability for MDA Internal Staff to assign security roles and rights for every User Account, to restrict or provide access to information in the program database for any User group or specific individuals of a User group.

Contact Information Management and Communication:

The proposed system will store and manage contact information for program participants such as Name, Organization Name, Phone #, Fax#, E-mail address, Vendor ID, Vendor Address, Contact Numbers, and Address Information. Existing contact information will be migrated from the existing database to the new system. New contact information may be entered by any User with appropriate security roles. Contact information will be shared and accessed by different users, based on their security roles in the system. Contact Information will be exportable to different formats to achieve different tasks in the system such as generating reports, or providing contact information in e-mail format for Outlook or any other medium of exchanging information.

System will perform secure communication processes like generating automated e-mails, reports, or messages regarding loans status, repayments, invoices, or contact information and sharing them between some or all users of the three User Groups.

Support Features:

Most Users of the proposed system will need help to perform tasks in the new system, and in order to accomplish those tasks, the user will have a Help Feature in the program. Users may require help in report generation or mapping the project sites or entering/editing information etc. which they can refer to the help information provided in the program.

Apart from the Help Feature, the system will help the Users to make their interaction with the system more User-friendly by:

- Alerting the User about the mandatory fields, when left blank or wrongly filled by the User.
- Providing pop-up messages, for example when the user is trying to delete, add or perform some other action with the system that the User can or cannot perform.
- Guiding the User to enter the right information in the fields with the help of spell check feature.
- Providing the User with progressive search functionality, to save time and reduce errors and make entry easier.
- Providing the User with error check and spelling functionality in the system to help the User to clearly and correctly describe and enter the right information.
- Alerting the MDA Internal Staff about any problem a User might be facing by generating tickets in the form of e-mails either automated or user customized from the User's workstation to the Program Administrator. This ticketing system will hold the history of the tickets issued for a particular problem, and the possible action taken by the internal staff to rectify the issue.

Loan Management and Status:

In 2012, AgBMP issued loans worth \$13 million. The loan process for AgBMP involves two external groups of Users to the Program: **LGU & Lenders**. AgBMP is associated with **65 LGU and 250 Lenders** approximately. The system must have the ability to track loan status of completed, previously approved, or pending loans, add new loans, generate reports, calculate repayment schedules, manage repayments, and segregate distinct funding sources.

Appropriations and Funding Sources:

- System will have procedures to incorporate appropriations from any source (currently 5), such as federal and state agencies, to program funds.
- System will contain information regarding the appropriations in the database for example: date, funding source, and dollar amount appropriation.

Annual Report and Application:

- The Proposed System will have procedures for the LGU and MDA Internal Staff to enter and retrieve on line the annual report application form.
- System will have the capability to perform calculations based on pre-defined formulas.
- System will have procedures to import data pertaining to an LGU on this form from the database, such as current budget, completed projects, and available funds.

Budget Approval:

- System will have procedures to upload live budget information for an LGU on the Interface of the Program.

LGU Approval for a Loan Application by the Borrower:

- System will have procedures for the LGU to approve a loan application (after entering it in the system).

Lender Approval for a Loan Application, already approved by the LGU.

- System will have procedures for the Lender to approve a loan application (after entering it in the system).

MDA Review and Approval of Loan Application, already approved by Lender.

- System will have procedures for the MDA to approve a loan application, based on bills, invoices, and other documentation submitted by the lender (bills and invoice are provided by the Borrower to the Lender and are out of the scope of the system).

Loan Amount is disbursed for the Loan and a Pay Date is assigned to that Loan.

- System will have a procedure for retrieve pertinent information for loan from the State of Minnesota SWIFT accounting system, using the SWIFT Data Warehouse, such as date paid, requisition used, and vendor. (The SWIFT data warehouse is an independent Oracle database that is updated nightly for transactions processed through the SWIFT payment system related to the AgBMP Loan Program).

System will have Procedures to Calculate the Amortization Schedule for the Loan, based on Pre-defined Formulas.

- System will calculate amortization schedules based on SWIFT Paid Date, amount of loan, loan interest rate, frequency of loan repayments, and total number of repayments.

System will have Procedures for the LGU, Lender and MDA Internal Staff to Deny or Approve a Loan Application.

- System to provide procedure to forward, notify, deny, or approve other appropriate Users of loan application when proposed project meets or exceeds program or statutory guidelines and is approved by appropriate User.

Loan Status:

- System will have procedure to track the status of the Loan application, based on the dates of activities for example: LGU acceptance date, Lender acceptance date, MDA acceptance date etc.
- System shall incorporate the procedure to name different dates, occurring in a loan process as text statuses on the User Interface for example: Incomplete, LGU Approval, Lender Approval, Lender Acceptance etc.
- System shall incorporate the procedure to calculate the current budget for an LGU example: Amount Remaining, Loans Issued, Budget Allotted etc. The calculations shall be based on the pre-defined formulas.

Loan Accounting:

- The System shall recognize a loan as a project with one practice category from a single funding source. A Borrower may have multiple loans. Multiple loans may be required to finance a project with multiple categories or multiple funding sources.
- System will have procedures for MDA Internal Staff to assign or modify funding sources, for the requested loan.
- System will have procedures to verify the accuracy of loan amounts issued for a particular loan as reported in SWIFT accounting system.
- Procedures shall be available to run checks, for the compliance of loan amounts with the statutory limitations of State for a loan and the auditing standards.
- The system shall be able to produce reports for the loans, based different criteria such as LGU, category, date, Lender, and funding source, etc.
- System shall have the capacity to calculate and generate repayment schedules for loans, based on pre-defined formulas.
- System shall have capacity to aggregate repayment schedules based on LGU of loans or Lenders issuing loans.

SWIFT & AgBMP:

The **AgBMP-db** program must retrieve data from the SWIFT statewide accounting system for reconciliation of loan disbursements, loan repayments, and requisitions that represent the allocations assigned to LGUs. System shall have the procedure to reconcile financial information in the AgBMP database with the SWIFT statewide accounting system. The system will have procedures to retrieve data from the '**SWIFT Data Warehouse**'. The system will not interact with the live SWIFT Interface: '**Administrative Portal**'. There are 3 possible scenarios where the system shall have the procedures and capacity to interact with SWIFT, for reconciliation of data:

Budget Approval Process for the LGU:

- System shall have the procedure to summarize the budget approved for an LGU based on similar funding sources and reconcile the information with the requisition data present in the SWIFT database.

Vendor ID:

- System shall have the procedure to reconcile the Vendor ID for a particular Lender associated with a loan, with the Vendor ID present in the SWIFT database.

Amount Approved & Amount Paid:

- System shall have the procedure to reconcile the amount approved and funding source for a loan with the amount paid and funding source present in the SWIFT database.

Loan Information:

Loans issued under the AgBMP Loan Program must implement practices that prevent water pollution and implement local and statewide watershed plans. Loans are currently categorized into one of at least five practice areas:

- Agricultural Waste Management,

- Structural Erosion Control Practices,
- Conservation Tillage Equipment,
- Sewage Systems,
- All Other Practices

A Borrower requests a loan through an LGU for an eligible project. The LGU shall fill out project and loan details for the Borrower, along with Borrower's contact information. Following fields are some of the loan information fields to be collected by the System.

- LGU Organization Name
- Borrower Full Name
- Borrower Organization Name
- Project Description
- Practice Category
- Project Location: Latitude and Longitude (see below)
- Maximum Loan Amount
- Farm or Non-Farm Project
- Starting and Ending Animal Units
- LGU Approval Expiration Date.
- Total Number of Payments.
- Frequency of Payments

Latitude & Longitude Mapping:

AgBMP will use an interactive web-mapping system to determine the spatial location of the project site. In most cases the project site is either borrower's residence or someplace far from the residence. The System shall however have procedures to make a borrower's given address the starting point to locate the spatial location of the project site.

- Procedures shall be incorporated in the system for the LGUs and MDA Internal Staff to spatially locate a project site.
- LGU/MDA Internal Staff shall be able to move the project location marker on the map interface to the exact location of the project site.
- Procedures shall be incorporated for the system to provide the Latitude and Longitude of the selected (clicked location on the map) address in the respective fields on the interface.
- Procedures shall be incorporated for the system to provide the township, range and section of the selected (clicked location on the map) address in the respective fields on the interface.
- The spatial information shall be stored in a database, corresponding to the technique used for ArcGIS, Google Maps, or other MDA approved online mapping utility. Stored information shall be able to link back to the associated loan that it represents.
- Procedures shall be incorporated in the system, to return the spatial information of any project, as queried by the User based on date, loan, address, name, or other combination of any ad-hoc query a user may use.

Analysis & Reports:

Report generation and analysis are two major components of **AgBMP-db** program. The current system has reports being generated and analyzed from each existing interface of the current program, for example: lists of loans, repayment schedules, total loans for an LGU or Lender, total allocations for each Lender or LGU, and others.

Currently, each interface of the existing program performs a specific activity within the system and each interface has a set of reports that pertain to the set of activities performed by the User. These reports are currently used only by the Internal staff of MDA.

- The new System will have procedures to incorporate this functionality for all 3 User Groups involved: Local Government Units, Lender Units, and MDA Internal Staff.
- Procedures shall be incorporated for the system to filter out the reports, based on the User who is accessing this functionality for example: System shall show the list of reports associated with a particular LGU only, when a User from that LGU has logged-in the program.
- Procedures shall be incorporated in the system, to provide the MDA Internal Staff with maximum security rights, to view, format and generate all reports associated with the Program, unlike the LGU Units or Lender Units, who will have limited security rights.
- The new System shall have the functionality for the User to navigate to the 'Query Interface' for generating activity-associated reports from every interface in the program (as done currently).
- Primary report interface must be accessible. Ideally all reports display on the user interface with export options.

Query Interface:

The system shall have the capacity and ability to allow and run pre-defined parameters and ad-hoc queries, generated by the user on this interface. These queries can be generated to save, export, or generate reports. System shall have the ability to recognize the query (s) and produce results in compliance to the entered query. MDA Internal staff shall have the authority to configure reports and queries for the Users. Current System does not have the ad-hoc query feature; the new system shall have procedures to incorporate this feature in it.

Some examples of pre-defined queries are searched by:

- Lenders
- Local Government Units
- Fund Source
- Contracts
- Type of Payment/Origination of Payment
- Date or Alphabetically
- Beginning Date / Ending Date
- Statewide Allocations

Customized Reports & Types:

The new System shall have the functionality to generate reports based on the queries generated by the User (ad-hoc or pre-defined parameters) and the pre-existing customized reports. MDA Internal Staff shall have the authority to customize the context of these reports, add new reports, and change the parameters of queries.

Procedure shall be incorporated, for the external User Groups (LGUs and Lender) so that they have access to only the reports that they are associated with and are authorized to view. MDA Internal Staff however can view and customize any report in the Program with appropriate security level.

- The system shall have the functionality which shall allow the user to save and export report (s) as Word File, PDF File, Excel file, Database File, or other widely available and accepted file formats in a secure manner.
- Procedures shall be incorporated in the new system, to have options to preview, e-mail and/or print the selected report (s) in a secure manner.

Examples of some reports (but are not limited to), result of pre-defined queries:

- Contract for New Multi-Lender LGU Participant
- Current Budget
- Current Status of Allocations
- Check List of all Contacts
- List of Loans

- Application Forms
- Activity Distribution by Amount of Loans Issued.

Calculations:

The system has set of pre-defined calculations that are performed to attain set of results. Procedures shall be incorporated in the new system that shall perform these calculations, and the system shall have the ability to incorporate more formulas and calculations for the future.

Example of calculation and are not limited to:

- Repayment (amortization) Schedule.
- Budget Allocation
- Total loans issued by an LGU or Lender
- Budget remaining for LGU, etc.

Allocations:

Every LGU is allotted an amount every year that the LGU can issue loans with. This amount represents the current budget for an LGU.

- Procedures shall be incorporated for the system to perform certain calculations, to produce the necessary results for these allocations. This includes calculations such as total of allocation by funding source, total allocation for LGU, total loans issued by funding source, loans assigned to an allocation.
- This functionality of the **AgBMP-db** program shall be accessible by the MDA Internal Staff only.
- All other external users shall be able to analyze- only the results produced by the calculations for allocations, based on pre-defined formulas. External Users may not edit or change allocations.

Access to the Data:

User: The initial page will have the link for Users to the an encrypted log-in interface, where they can enter the system after entering their correct log-in information.

General Public: General Public will be able to view general program information on MDA's existing website. They can view this information without entering any login information, since they do not belong to any specific user group. The same initial page will have a link for the general public (who are not the users) to access general information, without entering any log-in information. This information shall be configurable by the Internal Staff of MDA. Some information will be interactive like maps and charts, which the general public can have access to. This information shall be dynamically linked with the database and under the administration of the MDA Internal Staff. Information will be an educational platform for the general public to learn about the AgBMP Loan Programs and its projects.

Technical Requirements:

System Design document / System Requirement Specifications Document:

- Web Server – Websphere/Weblogic / JBoss
- Relational Database - Oracle/MS SQL Server
- Development, stage and production environment

Mapping / Spatial Functions:

- Mapping / Spatial functions will be provided using the states standard spatial tools

Browser & Device Compatibility:

- Firefox

- Chrome
- MS Internet Explorer
- Safari
- Mobile Devices

Migration of existing data to the new system:

- Design and create a relational database to support the new web based **AgBMP-db** program
- Migrate existing **AgBMP-db** data from the FoxPro database to the new relational database

Support, Maintenance & Documentation:

- Provide user documentation
- Provide database physical and logical model
- Provide documentation for supporting the application code

Web Application Security Items:

General

- Data is ALL NOT PUBLIC and Protected by State of MN Law
- Must comply with all State of MN Laws and all Enterprise policy and standards
- Compliant with NIST 800-53 and FIPS 200 (Security and Privacy Controls)
- PCI Compliance must be followed/Security Industry standards

Configuration Management

- FIPs 199 Encryption
- SSL - The Secure Sockets Layer (SSL) is a commonly-used protocol for managing the security of a message transmission on the Internet.
- All sensitive information (database connection string, developer names, hard coded credentials, etc.) removed from source code

Authentication

- Compliant with NIST 800-63-1 (Electronic Authentication Guideline)
- Single sign on solution
- Five incorrect login attempts and system lockout account
- Account lockout need to be tracked
- Login page is only accessible over SSL
- Application must enforce password complexity (Upper and Low case letter, numbers, and symbols)

Authorization

- Administrative account is not allowed to be accessed from the internet.
- Least privilege model must be followed for accounts, Role based security
- One user cannot access other user's data
- Lower privileged users cannot access higher privileged users data

User and Session Management

- Non sensitive information is used as user credentials
- Change password function needs to require the existing password or two security question be answered
- Session ID needs to be reset after authentication
- Session ID is greater than 128 bits
- Application must provide a logout function for users
- Application timeout due to inactivity of less than 15 minutes

Data Validation

- Data validation must performed on the server and client side.
- Application should perform white list validation for all input

- Application should encode all output before displaying it to the user
- Application should perform validation on all data being passed to the Operating System as commands (e.g. finger)

Error Handling and Exception Management

- Server and Database level exception captured by a routine and only generic custom error messages are displayed to the user.
- Generic error messages displayed after failed authentication attempts
- Application must fail securely, i.e. resources are not left open and all granted privileges are revoked

Data Protection

- All data will be transmitted over SSL or other secure transport.
- Sensitive information (SSN, Credit Card Number, Account Numbers, etc.) mask in the application (with only last 4 digits shown)
- No sensitive information sent via a GET request
- Cookies set with Secure flag and HTTP only flag
- Page caching disabled
- Sensitive data encrypted in the database.

Logging and Auditing

- User Logons and User Log-offs need to be logged
- Resource/functionality accesses logged and failed resource/functionality access
- Session creation, termination, and timeout/expiration logged
- Account creation, deletion, modification, and lockout needs to be logged
- Password change logged
- Role assignment logged
- Input rejection logged
- Attempts to change log levels and delete logs logged
- Password valid or invalid logging not allowed.
- Personally identifiable information (PII) (e.g. SSN, DOB, Name, Address, etc.) logging not allowed

Testing Code

- Application will go through code review several times during build process and must pass code analyses before entering production.

Project Deliverables

A single P/T contractor will provide the professional resources that combined with State Resources identified below will:

- Develop and implement a project work plan and schedule
- Complete the application and database development and configured to implement the business requirements.
- Define and document system configuration and workflow.
- Coordinate activity to install the application and database on MDA's application and database hardware with MDA network team, Security and other IT groups.
- Convert current data and database to new database.
- Develop documentation and training for system administration and users.

Project Milestones and Schedule

Project Start Date: June
15, 2013

Project End Date no later than: December 31, 2013

Key Deliverables:

- Project Plan
- Project Schedule
- Technical Design
- Database Design
- Security Design Document
- Test Plan
- Conversion of current data to new relational database
- Local Government Unit Web Page Functionality & Security Code Review
- Financial Institution Web Page Functionality & Security Code Review
- MDA Internal User Web Page Functionality & Security Code Review
- Reporting Functionality

Project Environment (State Resources)

The contractor will work directly with the MDA Project Coordinator, who will be the designated business user and main MDA staff contact person for this project. MN.IT @ Agriculture technical staff will make available the software, hardware, and computing environment necessary to build, install and operate the application and database.

Current server technology environment on MDA network:

- Windows 2008 Server / RedHat Enterprise Linux, either under VMware
- Web Application Server – Websphere/ IIS / Apache HTTP Server and Apache Tomcat
- Relational Database - Oracle / MS SQL Server

Programming Languages:

- JAVA / .Net
- JSP / ASP

MDA Project Team:

- Project Coordinator
- Business Analyst
- MN.IT Network / Server Administrator
- MN.IT Database and Web Server Administrator
- MN.IT Security

Agency Project Requirements

The application and database will be hosted at the at the Minnesota Department of Agriculture (MDA) at the Orville Freeman Office Building in St. Paul, Minnesota or at MN.IT Central and utilized by MDA staff, authorized partners, and the general public.

The vendor will ensure accessibility standards are included through all phases of the development process; from requirements documentation to the **development and testing**. MN's accessibility standards include both Section 508 technical standards as well as Web Content Accessibility Guidelines 2.0 at the AA level. For more information, see IT accessibility Standards under General Requirements on page 8.

The vendor shall follow data privacy and data practices according to Minnesota Statute. See link: <https://www.revisor.mn.gov/statutes/?view=part&start=13&close=13C>

The contractor must be physically available on site (MDA, St. Paul Office) for activities that require interaction with MDA staff, project team, and stakeholders.

Responsibilities Expected of the Selected Vendor

Vendor responsibilities include, but are not necessarily limited to the following:

- Design the application and database architecture
- Design and develop the application using a relational database and Web Server platform; and JAVA
- Understand secure coding and secure design.
- All code is to have security review, when required, and fix security code errors.
- Develop all project documentation including project work plan and schedule
- Overall responsibility for successful planning, executing, monitoring, controlling and closing out the web application and database development effort
- Maintain project benchmarks and timelines
- Work with the MDA Project Coordinator and other assigned MDA and MN.IT staff as needed
- Transfer application and database design knowledge to MN.IT assigned staff
- Develop testing and implementation schedule correlated to the work plan
- Propose change management process
- Report progress weekly to the MDA project team

Required Skills

The successful candidate will have the following minimum qualifications:

- Five or more years of experience leading IT projects of similar or larger in scope
- Four or more years of experience in developing web-based financial database applications
- Three or more years of experience programming in web-based languages, preferably JAVA
- Three or more years of experience in relational database design and architecture
- Experience working in a government setting
- Experience working with financial applications
- Excellent organizational skills to prioritize, track, document, and communicate progress on multiple project tasks
- Experience with the development of forms and reports
- Experience in development of secure code and secure application design

Process Schedule

- Deadline for Questions 05/17/2013, Time: 4:00pm C.S.T.
- Anticipated Posted Response to Questions 05/21/2013, Time: 4:00pm C.S.T.
- Proposals due 05/24/2013, Time: 4:00pm C.S.T.
- Anticipated proposal evaluation begins 05/28/2013, Time: 9:00am C.S.T.
- Anticipated proposal evaluation & decision 06/07/2013, Time: 4:00pm C.S.T.

Questions

Any questions regarding this Statement of Work should be submitted via e-mail by 05/17/2013, Time: 4:00pm C.S.T.

Name: Brian Duffy
Department: MN.IT @ Agriculture
Telephone Number: 651-201-6036
Email Address: brian.duffy@state.mn.us

Questions and answers will be posted on the Office of Enterprise Technology website by approximately 05/21/2013, Time: 4:00pm C.S.T. (http://mn.gov/buyit/statements/mcp902ts_active.html).

SOW Evaluation Process

All responses received by the due date and time will be evaluated according to the evaluation process below.

Categories and scoring method/criteria are as follows:

- Company (10%)
- Experience (20%)
- Understanding of Security (5%)
- Accessibility (5%)
- Three References (10%)
- Work Plan (20%)
- Cost (30%)

Statement of Work does not obligate the state to award a work order or complete the assignment, and the state reserves the right to cancel the solicitation if it is considered to be in its best interest. The Agency reserves the right to reject any and all proposals.

Response Requirements / Proposal Submittal

If a COTS solution is recommended, a different solicitation would be issued to procure that solution. (hardware and software cannot be purchased through the 902TS program.)

The evaluation and selection of Responders shall be based on the information submitted in the proposal. The State will not look for information or clarification outside of the information submitted in the proposal.

Responses must be received no later than **May 24, 2013, 4:00 PM Central Standard Time (CST)** and must be submitted via email to Brian.Duffy@state.mn.us (Subject Line of the email: SOW Response – AgBMP Project). Responses sent to any other email address will **not** be considered.

It is the Responders sole responsibility to ensure that their submittal is received at the Brian.Duffy@state.mn.us email address by the response deadline. Responses received after the deadline will not be considered, regardless of any documentation showing when the response email was sent.

The Proposal will be comprised of the following components:

The Proposal shall contain a Cover Letter (Two Page Limit) including the following:

1. Responder's mailing and facility address, facsimile number, telephone number, and web site address (if applicable).
2. Name, title, address, telephone number, and email address of the person designated by the company to answer questions about the Response.
3. Cover letter signed by a designated officer of the company.
4. Location of the company's headquarters, local facilities and satellite offices participating in the Contract Work Order.
5. A detailed explanation of the way the Responder would be available locally on a day-to-day basis during the period of the Contract Work Order to organize services, provide specific billing and invoicing information, and generally discuss, inform, and interact with the Contract users
6. Provide a summary of Company background, years in business, history, capabilities,

organizational structure and areas of expertise.

7. A statement of acceptance of the Sample Contract Work Order, Exhibit A. All terms and conditions stated in this SOW and the Response shall become a part of the Contract Work Order if the Responder is selected.

Qualifications and Capabilities:

The proposal shall contain the following details:

1. Provide resumes of the staff who will be assigned to the contract Work Order and a matrix table listing the following information for each individual assigned to the Contract Work Order: classification(s), summary of educational experience, project role for this SOW, years of experience, and skills and expertise.
2. Provide a detailed description of the company's experience as it relates to the tasks and deliverables listed in the SOW.
3. Describe the roles of the Responder's Project Manager as well as technical; staff and how they communicate with each other and the client.
4. Outline how the Responder ensures that all tasks are completed within a given schedule, are performed adequately, and are performed within or under budget.

References:

The proposal shall contain the following details:

1. Provide a list of projects your firm has completed for other Government Departments within the last 5 years and role in each.
2. Provide descriptions of three (3) projects managed by the Responders proposed Project Manager within the last five (5) years that include tasks similar to this listed in this SOW. For each of the projects provide: 1) name of the project and the client (including the client contact person with a telephone and email address); 2) a brief project description including a listing of tasks performed and the personnel who performed those tasks; 3) outcome achieved.

Work Plan

The Proposal shall contain the following details:

1. Provide a project summary and work plan explaining how the Responder will approach each of the tasks and deliverables described in this SOW.
2. Describe the major activities for each task and deliverable listed, and staff resources required to achieve the tasks and deliverables of this SOW.
3. Project summary must demonstrate the Responder's understanding of the services requested in this SOW and any problems anticipated in accomplishing the work.

Cost Proposal:

The Proposal shall contain a cost proposal in the following format:

Description of Work	Classification for work under this Contract Work Order	*Rate Per Hour	Number of Hours	Expenses	Total

* - Hourly rates cannot exceed the hourly rates identified in the Responders Office of Enterprise Technology 902TS Master Contract.

Conflict of Interest

Responder must provide a list of all entities with which it has relationships that create, or appear to create, a conflict of interest with the work that is contemplated in this SOW. The list should indicate the name of the entity, the relationship, and a discussion of conflict.

Required Forms

These forms must be signed by the appropriate individual with the Company, scanned into a file, and include with the email submission. If Responder does not have the capability to provide scanned documents, please email Brian.Duffy@state.nm.us and other options will be considered. Responders must download the required forms from the following links. In order for you to download the documents, you must type or copy and paste the link's file path and name into your browser address line. When the document file opens, use the "Save As ..." feature to save the documents to your computer hard drive or a disk.

- a) Affirmative Action Certificate of Compliance (if over \$100,000)
<http://www.mmd.admin.state.mn.us/doc/affaction.doc>
- b) Affidavit of non-collusion
<http://www.mmd.admin.state.mn.us/doc/noncollusion.doc>
- c) Certification Regarding Lobbying
<http://www.mmd.admin.state.mn.us/doc/lobbying.doc>
- d) Veteran-Owned/Service Disabled Veteran-Owned Preference Form
<http://www.mmd.admin.state.mn.us/doc/vetpref.doc>

General Requirements

Proposal Contents

By submission of a proposal, Responder warrants that the information provided is true, correct and reliable for purposes of evaluation for potential award of this work order. The submission of inaccurate or misleading information may be grounds for disqualification from the award as well as subject the responder to suspension or debarment proceedings as well as other remedies available by law.

Liability

Indemnification

In the performance of this contract by Contractor, or Contractor's agents or employees, the contractor must indemnify, save, and hold harmless the State, its agents, and employees, from any claims or causes of action, including attorney's fees incurred by the state, to the extent caused by Contractor's:

- 1) Intentional, willful, or negligent acts or omissions; or
- 2) Actions that give rise to strict liability; or
- 3) Breach of contract or warranty.

The indemnification obligations of this section do not apply in the event the claim or cause of action is the result of the State's sole negligence. This clause will not be construed to bar any legal remedies the Contractor may have for the State's failure to fulfill its obligation under this contract.

Disposition of Responses

All materials submitted in response to this SOW will become property of the State and will become public record in accordance with Minnesota Statutes, section 13.591, after the

evaluation process is completed. Pursuant to the statute, completion of the evaluation process occurs when the government entity has completed negotiating the contract with the selected vendor. If the Responder submits information in response to this SOW that it believes to be trade secret materials, as defined by the Minnesota Government Data Practices Act, Minn. Stat. § 13.37, the Responder must: clearly mark all trade secret materials in its response at the time the response is submitted, include a statement with its response justifying the trade secret designation for each item, and defend any action seeking release of the materials it believes to be trade secret, and indemnify and hold harmless the State, its agents and employees, from any judgments or damages awarded against the State in favor of the party requesting the materials, and any and all costs connected with that defense. This indemnification survives the State's award of a contract. In submitting a response to this RFP, the Responder agrees that this indemnification survives as long as the trade secret materials are in possession of the State.

The State will not consider the prices submitted by the Responder to be proprietary or trade secret materials.

Conflicts of Interest

Responder must provide a list of all entities with which it has relationships that create, or appear to create, a conflict of interest with the work that is contemplated in this request for proposals. The list should indicate the name of the entity, the relationship, and a discussion of the conflict.

The responder warrants that, to the best of its knowledge and belief, and except as otherwise disclosed, there are no relevant facts or circumstances which could give rise to organizational conflicts of interest. An organizational conflict of interest exists when, because of existing or planned activities or because of relationships with other persons, a vendor is unable or potentially unable to render impartial assistance or advice to the State, or the vendor's objectivity in performing the contract work is or might be otherwise impaired, or the vendor has an unfair competitive advantage. The responder agrees that, if after award, an organizational conflict of interest is discovered, an immediate and full disclosure in writing must be made to the Assistant Director of the Department of Administration's Materials Management Division ("MMD") which must include a description of the action which the contractor has taken or proposes to take to avoid or mitigate such conflicts. If an organization conflict of interest is determined to exist, the State may, at its discretion, cancel the contract. In the event the responder was aware of an organizational conflict of interest prior to the award of the contract and did not disclose the conflict to MMD, the State may terminate the contract for default. The provisions of this clause must be included in all subcontracts for work to be performed similar to the service provided by the prime contractor, and the terms "contract," "contractor," and "contracting officer" modified appropriately to preserve the State's rights.

IT Accessibility Standards

Responses to this solicitation must comply with Accessibility requirements as identified in the State of Minnesota Standards Accessibility Standard document found at: http://mn.gov/oet/images/TA_S_Accessibility_2011-04049.pdf. In part, this incorporates both Section 508 of the Rehabilitation Act and Web Content Accessibility Guidelines 2.0 level "AA". This includes web sites, software applications, electronic reports and output documentation, and training delivered in electronic formats (e.g. documents, videos, and webinars).

Nonvisual Access Standards

Nonvisual access standards require:

- 1) The effective interactive control and use of the technology, including the operating system, applications programs, prompts, and format of the data presented, are readily achievable by nonvisual means;
- 2) That the nonvisual access technology must be compatible with information technology used by other individuals with whom the blind or visually impaired individual must interact;
- 3) That nonvisual access technology must be integrated into networks used to share communications among employees, program participants, and the public; and
- 4) That the nonvisual access technology must have the capability of providing equivalent access by nonvisual means to telecommunications or other interconnected network services used by persons who are not blind or visually impaired.

Veteran-Owned Preference

In accordance with Minn. Stat. § 16C.16, subd. 6a, (a) Except when mandated by the federal government as a condition of receiving federal funds, the commissioner shall award up to a six percent preference on state procurement to **certified small businesses** that are **majority-owned and operated by**:

- (1) recently separated veterans who have served in active military service, at any time on or after September 11, 2001, and who have been discharged under honorable conditions from active service, as indicated by the person's United States Department of Defense form DD-214 or by the commissioner of veterans affairs;
- (2) veterans with service-connected disabilities, as determined at any time by the United States Department of Veterans Affairs; or
- (3) any other veteran-owned small businesses certified under section [16C.19](#), paragraph (d).

In accordance with Minn. Stat. § 16C.19 (d), a veteran-owned small business, the principal place of business of which is in Minnesota, is certified if it has been verified by the United States Department of Veterans Affairs as being either a veteran-owned small business or a service disabled veteran-owned small business, in accordance with Public Law 109-461 and Code of Federal Regulations, title 38, part 74.

To receive a preference the veteran-owned small business must meet the statutory requirements above by the solicitation opening date and time.

If you are claiming the veteran-owned preference, **attach documentation, sign and return the Veteran-Owned Preference Form with your response to the solicitation.** Only eligible veteran-owned small businesses that meet the statutory requirements and provide adequate documentation will be given the preference.

Foreign Outsourcing of Work Prohibited

All services under this contract shall be performed within the borders of the United States. All storage and processing of information shall be performed within the borders of the United States. This provision also applies to work performed by subcontractors at all tiers.