UNITED STATES DEPARTMENT OF AGRICULTURE

FARM SERVICE AGENCY

Privacy Impact Analysis (PIA)
for
Geospatial Information Systems (GIS)

- Land Use Acreage Reporting Tool
- Farm Records Maintenance Tool
- Geospatial Data Warehouse Replication Application
- CLU Compliance Tool
- CRP Signup Tool
- Grain Storage Bin Application

FINAL

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Table of Contents

1 Purpose of Document 4
2 Applicability 5
2.1 Applicability of System 5
2.2 System Overview 5
2.2.1 Land Use Acreage Reporting Tool 5
2.2.2 Farm Records Maintenance Tool 5
2.2.3 Geospatial Data Warehouse (GDW) Replication Application (RA) 6
2.2.4 CLU Compliance Tool 6
2.2.5 CRP Signup Tool 6
2.2.6 Grain Storage Bin Application (GSB) 6
3 USDA PRIVACY IMPACT ASSESSMENT 8
3.1 Land Use Acreage Reporting Tool 8
3.2 Farm Records Maintenance Tool 12
3.3 Geospatial Data Warehouse Replication Application (GDWRA) 16
3.4 CLU Compliance Tool 19
3.5 CRP Signup Tool 23
3.6 Grain Storage Bin Application 26
PRIVACY IMPACT ASSESSMENT AUTHORIZATION MEMORANDUM 31
Appendix A - Acronyms 32
Appendix B - GIS – Specific Acronyms 33

Table of Tables

Table 1: System Applicability 5

1 Purpose of Document

USDA DM 3515-002 states: "Agencies are responsible for initiating the PIA in the early stages of the development of a system and to ensure that the PIA is completed as part of the required System Life Cycle (SLC) reviews. Systems include data from applications housed on mainframes, personal computers, and applications developed for the Web and agency databases. Privacy must be considered when requirements are being analyzed and decisions are being made about data usage and system design. This applies to all of the development methodologies and system life cycles used in USDA.

Both the system owners and system developers must work together to complete the PIA. System owners must address what data are used, how the data are used, and who will use the data. System owners also need to address the privacy implications that result from the use of new technologies (e.g., caller identification). The system developers must address whether the implementation of the owner's requirements presents any threats to privacy."

The Privacy Impact Assessment (PIA) document contains information on how the Geospatial Information Systems affects the privacy of its users and the information stored within. This assessment is in accordance with NIST SP 800-37 *Guide for the Security Certification and Accreditation of Federal Information Systems.*

2 Applicability

2.1 Applicability of System

The information in this document is applicable to the system and its subsystems as listed below.

Table 1: System Applicability

System	Subsystem
Geospatial Information Systems (GIS)	• Land Use Acreage Reporting Tool • Farm Records Maintenance Tool • Geospatial Data Warehouse Replication Application • CLU Compliance Tool • CRP Signup Tool • Grain Storage Bin Application

2.2 System Overview

The Geographical Information System (GIS) is the first of several applications that will comprise a system of systems used to integrate domestic geographic data and geospatial graphical representations (maps) of private farmland into digital format. The information will be collected at the County Offices to support farm subsidy programs, disaster relief, and conservation programs. Through GIS, the FSA will track of what is grown on a particular piece of land. Data utilized by core applications is primarily from a vector layer of farm-field boundaries developed by FSA and from aerial photography and some satellite photography contracted or purchased from private enterprise and other government agencies. County tax assessors also utilize these maps and are a prime example of a non-federal government user/customer.

2.2.1 Land Use Acreage Reporting Tool

Each growing season producer participating in FSA programs report their crops to Service Center staff. The information reported includes spatial data such the field or subfield where the crop is planted and its acreage and non-spatial data such as crop type, shares, and deductions from field acreage for turn rows. In the past producers and FSA staff located planted fields on paper reference maps. Planted acreage was reported by the producer. This information was entered into the System 36.

The Land Use application utilizes client and server software and has become the vehicle for migrating the crop reporting business activity off the System 36. The software creates a county-based SQL Server land use geospatial database on the Service Center server. The client software extends ArcGIS, software created by ESRI, capabilities and provides customized forms for entering crop, field, deduction, and shares information taken from the producer. It passes crop information back to the System 36, certifies crop reports, and prints maps. Future versions of the software will eventually pass crop information to the Farm Records Web Services.

2.2.2 Farm Records Maintenance Tool

The Farm Records Maintenance Tool, the CLU MT, is a customized application which extends the base ArcGIS functionality to meet the needs of maintaining the Common Land Unit (CLU) line work in a geospatial database. ArcSDE (Spatial Database Engine) is utilized as a client application to MS SQL

on the county office servers' nation wide. The CLU MT provides the acreage information for every farm and tract in the United States involved with FSA programs. The functions in the MT allow FSA employees to maintain the line work, much like parcels for a County Appraiser's Office, so that accurate payouts can happen with producers based on the programs they are involved with.

2.2.3 Geospatial Data Warehouse (GDW) Replication Application (RA)

The specific purpose of the CLU replication process is to transfer current CLU's from the local Service Center's (SC) to the GDW. Each SC will have its CLU GIS layer/layers in an ArcSDE Geodatabase on a local Microsoft SQL server. The USDA GDW will capture any changes on the CLU that have happened at each SC through an FTP procedure described below to insure that the GDW has the most current CLU information. Once a week, a scheduled task will initiate the CLU replication program, a SDE C# executable. The RA will be coded in a manner to randomly start anytime during a one-hour period which will initiate the database selection and FTP process.

2.2.4 CLU Compliance Tool

FSA is responsible for administering a large number of programs designed to improve and support American agriculture. The great majority of these programs are land-based. In order to monitor farms participating in FSA programs, FSA checks an approximate 13% sample of farms for program compliance. This compliance check verifies that the farm fields planted agree with the crops and acreages reported during crop reporting. In the past, this was done by 35mm slide aerial photography and planimeters. Starting in 2003, FSA began automating the compliance process. Automation required digital farm field boundaries (the CLU), digital imagery, and a customized Geographic Information System (GIS) application.

The application obtains a list of sample farms from the Sys36 with the reported crop information for the Service Center and the universal crop list (domain data) for the current compliance season. Using current, peak-growing season digital imagery, users are able to determined crop acreage on the reported fields and send an official measurement flag back to the legacy System 36 database. Users will be able to accept or reject the acreage of a polygon drawn around the planted crop using growing season imagery to determine an official visit for an official measurement.

2.2.5 CRP Signup Tool

The tool is intended to be used primarily as an interactive aid for both the Service Center staff and CRP applicants to develop CRP scenarios for possible CRP offers during signup in the county office. The tool is used as an offer scenario planning tool to provide applicants with determinations regarding alternate offer scenarios with differing Maximum Payment Rates and EI Land Eligibility results/calculations. The primary function of the tool is the generation of an ArcView GIS Layout (map) with the offered area delineated and related determinations and calculations provided on the map. Use of the software will substantially enhance accuracy and reduce the time required to make CRP determinations compared to manual processes.

This tool is to be developed as an ArcView GIS Extension, and is designed to operate with ArcView 3.2 or 3.3 using GIS shapefiles and CRP databases that are already in existence or currently under development.

2.2.6 Grain Storage Bin Application (GSB)

The problem of creating and storing grain bin locations and attributes in a geospatial environment affects all county office employees, the impact of which is that data is stored in outdated systems (by hand or System 36). The GSB is a successful solution that allows users to easily create and attribute grain storage bins geospatially, as well as produce forms based on the data that was input to support

Market Assistance Loans (MAL) with ability to store official measurements of the produce and the bin storage unit in a geospatial environment.

For ArcGIS data editors who need a quick, digital method to map and attribute grain storage bins, the Grain Storage Bin Application is a tool that will provide the ability to efficiently enter grain storage bin data and locations. Unlike mapping and tracking grain storage bins by hand, the application allows the users to efficiently and accurately map and maintain grain storage bins in a geospatial environment.

3 USDA PRIVACY IMPACT ASSESSMENT

3.1 Land Use Acreage Reporting Tool

3.1 DATA IN THE SYSTEM	
1. Generally describe the information to be used in the system in each of the following categories: Customer, Employee, and Other.	Customer: A customer's Core ID is one of the possible inputs that a customer may provide for identification validation within the land use application. The customer's Core ID is stored in the application database following validation for associating acreage reports with the appropriate customers. The acreage reports contain information regarding farm land owned or operated by the customer and the relevant crop data about that farm land. Employee: The application uses Windows Username to validate access to application databases and FSA web applications. The Employee's Windows Username is associated with entries they create in the application database to allow for accountability. Other: NA
2a. What are the sources of the information in the system?	The application uses data stored in the Service Center Information Management System (SCIMS), Farm Records Database, the Crop Validation System, the Common Land Unit (CLU) database, Compressed County Mosaics (CCMs) imagery, and the Land Use database. It prompts the user to enter information such as crop planted, crop variety, number of acres planted, crop shares, etc.
2b. What USDA files and databases are used? What is the source agency?	Land Use uses the Common Land Unit (CLU) database, the GIS Domains Database, the SCIMS database, the Farm Records database, the Crop Validation System database, the FSA GIS layers database, and the Compressed County Mosaics imagery. All files and databases are FSA.
2c. What Federal Agencies are providing data for use in the system?	FSA
2d. What State and Local Agencies are providing data for use in the system?	None
2e. From what other third party sources will data be collected?	None

3.1 DATA IN THE SYSTEM	
2f. What information will be collected from the customer/employee?	Crop type, percentage of share and deductions from field acreage for all planted crops participating in an FSA program.
3a. How will data collected from sources other than the USDA records and the customer be verified for accuracy?	No data is collected from other sources. Only FSA data is collected.
3b. How will data be checked for completeness?	N/A

3.1 ACCESS TO THE DATA	
1. Who will have access to the data in the system (Users, Managers, System Administrators, Developers, Other)?	Only COF employees, FSA database administrators, developers, and State GIS Specialists have access to the data in the system.
2. How is access to the data by a user determined? Are criteria, procedures, controls, and responsibilities regarding access documented?	COF employees, FSA database administrators, developers, and State GIS Specialists who have read permissions to the land use database may view information stored in that database. Windows authentication is used to determine if a user may access the application database. Yes, the documents are available with ITS organization.
3. Will users have access to all data on the system or will the user's access be restricted? Explain.	A user must be granted access to the application database before they can view or edit the information in the application database. User WINDOWS authentication user name is used within SQL Server Enterprise Manager to restrict land use application use to only those users who have land use database editor, CLU reader roles. User roles are assigned by ITS Technical Support Division staff and FSA Database Administrators.
4. What controls are in place to prevent the misuse (e.g. browsing, unauthorized use) of data by those having access?	There are no controls in place to prevent authorized users from browsing and potentially misusing the core customer (~~tax~~ Core ID, ~~tax~~ Core ID type, etc.). Users may browse data using ESRI ArcCatalog. However most authorized users are not knowledgeable of this software.
5a. Do other systems share data or have access to data in this system? If yes, explain.	No
5b. Who will be responsible for protecting the privacy rights of the customers and employees affected by the interface.	N/A

3.1 ACCESS TO THE DATA	
6a. Will other agencies share data or have access to data in this system (International, Federal, State, Local, Other)?	No
6b. How will the data be used by the agency?	N/A
6c. Who is responsible for assuring proper use of the data?	N/A

3.1 ATTRIBUTES OF THE DATA	
1. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?	Core customer data such as CoreID and core id type was used internally by the application to link current customers to historic crop report data and for training users on laptops that were disconnected from a network and therefore without the ability to access SCIMS and Farm Records. Use of the data could be removed in a future release of the application, and the existing databases could have the data stripped as well.
2a. Will the system derive new data or create previously unavailable data about an individual through aggregation from the information collected?	No
2b. Will the new data be placed in the individual's record (customer or employee)?	N/A
2c. Can the system make determinations about customers or employees that would not be possible without the new data?	No
2d. How will the new data be verified for relevance and accuracy?	N/A
3a. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	No data is being consolidated.
3b. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain.	No consolidation occurs.

3.1 ATTRIBUTES OF THE DATA	
4a. How will the data be retrieved? Can it be retrieved by personal identifier? If yes, explain.	Data can retrieved by COF employees, FSA database administrators, and State GIS specialists who have knowledge of the database model and ESRI ArcCatalog or SQL Server. A customer's name or Core ID and Core ID type can be used to retrieve information about the customer.
4b. What are the potential effects on the due process rights of customers and employees of: • consolidation and linkage of files and systems; • derivation of data • accelerated information processing and decision making; • use of new technologies.	N/A, the land use database contains no data that would affect program eligibility determination.
4c. How are the effects to be mitigated?	N/A

3.1 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
1a. Explain how the system and its use will ensure equitable treatment of customers and employees.	The system does not support any functionality for its employees. For the customers, the only information being captured is what a person(s) is planting on a given area of land. No other producer information is collected that would lead to inequitable treatment.
2a. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	System is only operated in 234 COF sites. All sites use the same version of the application. The application itself does not allow input of invalid or inconsistent data.
2b. Explain any possibility of disparate treatment of individuals or groups.	N/A
2c. What are the retention periods of data in this system?	Indefinitely
2d. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	N/A
2e. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	Data collected in the land use application is written back to the legacy System 36, which contains numerous procedures for validating data.

3.1 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
3a. Is the system using technologies in ways that the USDA has not previously employed (e.g. Caller-ID)?	No
3b. How does the use of this technology affect customer/employee privacy?	N/A
4a. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	There is no monitoring of individuals, but the system will be able to identify and locate farmland through aerial photography.
4b. Will this system provide the capability to identify, locate, and monitor groups of people? If yes, explain.	No
4c. What controls will be used to prevent unauthorized monitoring?	Access controls (User ID and passwords) will be used to prevent unauthorized monitoring.
5a. Under which Systems of Record notice (SOR) does the system operate? Provide number and name.	Research is currently being conducted regarding GIS SOR requirements.
5b. If the system is being modified, will the SOR require amendment or revision? Explain.	Research is currently being conducted regarding GIS SOR requirements.

3.2 Farm Records Maintenance Tool

3.2 DATA IN THE SYSTEM	
1. Generally describe the information to be used in the system in each of the following categories: Customer, Employee, and Other.	Customer: Input from the customer that helps the FSA employee manage the line work for the Common Land Unit. Aerial photography is used to assist in delineating cropping practices.
2a. What are the sources of the information in the system?	Producers and FSA County Offices
2b. What USDA files and databases are used? What is the source agency?	GIS development system consists of a SQL file server which contains a wetlands point file, a CRP table, and a domains database acting as an auxiliary table to perform application functions. SCIMS is also utilized.
2c. What Federal Agencies are providing data for use in the system?	FSA
2d. What State and Local Agencies are providing data for use in the system?	Some states have a cooperative agreement with county appraiser offices which provide parcel data for CLU line work management on the CLU
2e. From what other third party sources will data be collected?	None

3.2 DATA IN THE SYSTEM	
2f. What information will be collected from the customer/employee?	Any change in the line work that will change acreage information for FSA programs.
3a. How will data collected from sources other than the USDA records and the customer be verified for accuracy?	No data is collected from other sources. Only data collected is from the FSA County Offices.
3b. How will data be checked for completeness?	Internal validations exist based on user requirements in the application.

3.2 ACCESS TO THE DATA	
1. Who will have access to the data in the system (Users, Managers, System Administrators, Developers, Other)?	Producers will only have access to their own data. Users in the field offices will have access to the data once trained on the application and given the appropriate permissions in the SQL tables.
2. How is access to the data by a user determined? Are criteria, procedures, controls, and responsibilities regarding access documented?	State GIS Personnel will train employees and determine fitness to use the application and then request permissions be granted using SQL permission tables.
3. Will users have access to all data on the system or will the user's access be restricted? Explain.	Yes, there is no restriction on users viewing the information. Using SQL access permissions, a user can be a reader of the data while others can be editors.
4. What controls are in place to prevent the misuse (e.g. browsing, unauthorized use) of data by those having access?	GIS contains it own class extension preventing unauthorized editing and SQL prevents unauthorized viewing of the data.
5a. Do other systems share data or have access to data in this system? If yes, explain.	No
5b. Who will be responsible for protecting the privacy rights of the customers and employees affected by the interface.	FSA
6a. Will other agencies share data or have access to data in this system (International, Federal, State, Local, Other)?	Yes but an MOU must be put in place.
6b. How will the data be used by the agency?	NRCS will create conservation practice plans and RMA will use it with crop insurance programs.
6c. Who is responsible for assuring proper use of the data?	Data usage is wrapped up in MOU's

3.2 ATTRIBUTES OF THE DATA	
1. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?	Yes
2a. Will the system derive new data or create previously unavailable data about an individual through aggregation from the information collected?	No
2b. Will the new data be placed in the individual's record (customer or employee)?	N/A
2c. Can the system make determinations about customers or employees that would not be possible without the new data?	It makes acreage determinations for customers.
2d. How will the new data be verified for relevance and accuracy?	The data will not be verified for accuracy through the Spatial Database Engine.
3a. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	No data is being consolidated.
3b. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain.	No processes are being consolidated.
4a. How will the data be retrieved? Can it be retrieved by personal identifier? If yes, explain.	Data is retrieved using the FSA core SCIMS id.
4b. What are the potential effects on the due process rights of customers and employees of: • consolidation and linkage of files and systems; • derivation of data • accelerated information processing and decision making; • use of new technologies.	N/A, no personal information is involved thus due process is not applicable.
4c. How are the effects to be mitigated?	N/A

3.2 MAINTENANCE OF ADMINSTRATIVE CONTROLS

3.2 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
1a. Explain how the system and its use will ensure equitable treatment of customers and employees.	The system does not support any functionality for its employees. It is not required to follow equitable treatment of customers and employees because it only manages the line work of the farming practices.
2a. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	System is distributed to all FSA county offices and the Common Computing Environment through the OCIO ensures that the configuration is the same in all sites.
2b. Explain any possibility of disparate treatment of individuals or groups.	N/A
2c. What are the retention periods of data in this system?	Indefinitely
2d. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	N/A
2e. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	When producers are signing up for FSA programs, acreage information is checked with the producer to ensure completeness.
3a. Is the system using technologies in ways that the USDA has not previously employed (e.g. Caller-ID)?	No
3b. How does the use of this technology affect customer/employee privacy?	N/A
4a. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	There is no monitoring of individuals, but the system will be able to identify and locate farmland through aerial photography and satellite photography.
4b. Will this system provide the capability to identify, locate, and monitor groups of people? If yes, explain.	No
4c. What controls will be used to prevent unauthorized monitoring?	Access controls (Windows authentication and passwords) will be used to prevent unauthorized monitoring.
5a. Under which Systems of Record notice (SOR) does the system operate? Provide number and name.	Research is currently being conducted regarding GIS SOR requirements.
5b. If the system is being modified, will the SOR require amendment or revision? Explain.	Research is currently being conducted regarding GIS SOR requirements.

3.3 Geospatial Data Warehouse Replication Application (GDWRA)

3.3 DATA IN THE SYSTEM	
1. Generally describe the information to be used in the system in each of the following categories: Customer, Employee, and Other.	Customer: Geographical line work data is being passed to the GDW in Salt Lake City, UT from all the Service Centers nation wide.
2a. What are the sources of the information in the system?	FSA County Offices
2b. What USDA files and databases are used? What is the source agency?	The Common Land Unit geospatial database.
2c. What Federal Agencies are providing data for use in the system?	FSA
2d. What State and Local Agencies are providing data for use in the system?	None
2e. From what other third party sources will data be collected?	None
2f. What information will be collected from the customer/employee?	Information collected will support the public and internal distribution mechanisms of the Common Land Unit database.
3a. How will data collected from sources other than the USDA records and the customer be verified for accuracy?	No data is collected from other sources. Only data collected is from the FSA County Offices.
3b. How will data be checked for completeness?	N/A

3.3 ACCESS TO THE DATA	
1. Who will have access to the data in the system (Users, Managers, System Administrators, Developers, Other)?	N/A
2. How is access to the data by a user determined? Are criteria, procedures, controls, and responsibilities regarding access documented?	N/A
3. Will users have access to all data on the system or will the user's access be restricted? Explain.	N/A. The application resides on the county office servers and is initiated by scheduled tasks.
4. What controls are in place to prevent the misuse (e.g. browsing, unauthorized use) of data by those having access?	A special domain admin password account for this single application has been created.

3.3 ACCESS TO THE DATA	
5a. Do other systems share data or have access to data in this system? If yes, explain.	No
5b. Who will be responsible for protecting the privacy rights of the customers and employees affected by the interface.	N/A
6a. Will other agencies share data or have access to data in this system (International, Federal, State, Local, Other)?	No
6b. How will the data be used by the agency?	N/A
6c. Who is responsible for assuring proper use of the data?	N/A

3.3 ATTRIBUTES OF THE DATA	
1. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?	Yes
2a. Will the system derive new data or create previously unavailable data about an individual through aggregation from the information collected?	No
2b. Will the new data be placed in the individual's record (customer or employee)?	N/A
2c. Can the system make determinations about customers or employees that would not be possible without the new data?	No
2d. How will the new data be verified for relevance and accuracy?	N/A
3a. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	No data is being consolidated.
3b. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain.	No processes are being consolidated.

3.3 ATTRIBUTES OF THE DATA	
4a. How will the data be retrieved? Can it be retrieved by personal identifier? If yes, explain.	Data cannot be retrieved by personal identifier whereas personal information is not used.
4b. What are the potential effects on the due process rights of customers and employees of: • consolidation and linkage of files and systems; • derivation of data • accelerated information processing and decision making; • use of new technologies.	N/A, no personal information is involved thus due process is not applicable.
4c. How are the effects to be mitigated?	N/A

3.3 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
1a. Explain how the system and its use will ensure equitable treatment of customers and employees.	The system does not support any functionality for its employees. It is not required to follow equitable treatment of customers and employees because it only deals with data already captured by the Maintenance Tool.
2a. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	N/A. It is a stored procedure kicked off by a scheduled task.
2b. Explain any possibility of disparate treatment of individuals or groups.	N/A
2c. What are the retention periods of data in this system?	Until the data has been changed. When that happens at the local level, those changes are replicated to the GDW.
2d. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	There is a delete procedure included in the process at the GDW site.
2e. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	N/A
3a. Is the system using technologies in ways that the USDA has not previously employed (e.g. Caller-ID)?	No

3.3 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
3b. How does the use of this technology affect customer/employee privacy?	N/A
4a. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	This is only a transfer of data. No monitoring of any kind is involved.
4b. Will this system provide the capability to identify, locate, and monitor groups of people? If yes, explain.	No
4c. What controls will be used to prevent unauthorized monitoring?	Access controls (Domain Admin password, SDE passwords, and FTP passwords) will be used to prevent unauthorized monitoring.
5a. Under which Systems of Record notice (SOR) does the system operate? Provide number and name.	Research is currently being conducted regarding GIS SOR requirements.
5b. If the system is being modified, will the SOR require amendment or revision? Explain.	Research is currently being conducted regarding GIS SOR requirements.

3.4 CLU Compliance Tool

3.4 DATA IN THE SYSTEM	
1. Generally describe the information to be used in the system in each of the following categories: Customer, Employee, and Other.	Customer: Data reported to FSA by producers during crop reporting season and stored in the legacy System 36 Crop Detail File (578 Report), Common Land Unit (CLU) GIS data, i.e. farm field boundaries and acreages, and National Agricultural Imagery Program (NAIP) digital imagery. Employee: N/A
2a. What are the sources of the information in the system?	All data is owned by FSA.
2b. What USDA files and databases are used? What is the source agency?	The application uses files exported from the Common Land Unit (CLU) SQL Server/ArcSDE database, the NAIP imagery, System 36 Crop Detail (578 Data), and System 36 Universal Crop Data
2c. What Federal Agencies are providing data for use in the system?	FSA
2d. What State and Local Agencies are providing data for use in the system?	None
2e. From what other third party sources will data be collected?	None

3.4 DATA IN THE SYSTEM	
2f. What information will be collected from the customer/employee?	Information collected will crop compliance checking.
3a. How will data collected from sources other than the USDA records and the customer be verified for accuracy?	No data is collected from other sources
3b. How will data be checked for completeness?	N/A

3.4 ACCESS TO THE DATA	
1. Who will have access to the data in the system (Users, Managers, System Administrators, Developers, Other)?	COF staff, ITS and FSA Help Desk staff, State GIS Administrators.
2. How is access to the data by a user determined? Are criteria, procedures, controls, and responsibilities regarding access documented?	The data is accessible to anyone with access to the COF server, this would include FSA COF staff, State GIS Specialists, and ITS and FSA Help Desk staff.
3. Will users have access to all data on the system or will the user's access be restricted? Explain.	Users must have Windows user name and passwords. Users' access is restricted to users placed in Active Directory groups: local geodata editor (read/write)
4. What controls are in place to prevent the misuse (e.g. browsing, unauthorized use) of data by those having access?	GIS contains it own host based Identification and Authentication.
5a. Do other systems share data or have access to data in this system? If yes, explain.	No, however data collected by application—determined acreage, official field visit, and official measurement—is written back to System 36 files.
5b. Who will be responsible for protecting the privacy rights of the customers and employees affected by the interface.	DAA, Employees/Users and Managers
6a. Will other agencies share data or have access to data in this system (International, Federal, State, Local, Other)?	No
6b. How will the data be used by the agency?	N/A
6c. Who is responsible for assuring proper use of the data?	N/A

3.4 ATTRIBUTES OF THE DATA

3.4 ATTRIBUTES OF THE DATA	
1. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?	Yes
2a. Will the system derive new data or create previously unavailable data about an individual through aggregation from the information collected?	No
2b. Will the new data be placed in the individual's record (customer or employee)?	N/A
2c. Can the system make determinations about customers or employees that would not be possible without the new data?	No
2d. How will the new data be verified for relevance and accuracy?	N/A
3a. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	No data is being consolidated by the application.
3b. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain.	No processes are being consolidated.
4a. How will the data be retrieved? Can it be retrieved by personal identifier? If yes, explain.	Data cannot be retrieved by personal identifier because personal identifiers are not used.
4b. What are the potential effects on the due process rights of customers and employees of: • consolidation and linkage of files and systems; • derivation of data • accelerated information processing and decision making; • use of new technologies.	N/A, no personal information is involved thus due process is not applicable.
4c. How are the effects to be mitigated?	N/A

3.4 MAINTENANCE OF ADMINSTRATIVE CONTROLS

3.4 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
1a. Explain how the system and its use will ensure equitable treatment of customers and employees.	The system does not support any functionality for its employees. It is not required to follow equitable treatment of customers and employees because it is only validating farming/planting practices randomly identified by the Sys 36 and comparing the reported planting activities with reality. This is currently mandated by Congress as an FSA activity to prevent fraud and abuse.
2a. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	The application allows users to enter acreage determinations, official field visit (Y/N), and official measurement (Y/N) data only.
2b. Explain any possibility of disparate treatment of individuals or groups.	N/A
2c. What are the retention periods of data in this system?	Indefinitely
2d. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	N/A
2e. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	The application displays growing season imagery for farms in the compliance sample, and allows users to determine acreages planted. It merely passes determined acreages back to the System 36. The program compliance determination is made on the System 36.
3a. Is the system using technologies in ways that the USDA has not previously employed (e.g. Caller-ID)?	No
3b. How does the use of this technology affect customer/employee privacy?	N/A
4a. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	There is no monitoring of individuals, but the system will be able to identify and locate farmland through aerial photography.
4b. Will this system provide the capability to identify, locate, and monitor groups of people? If yes, explain.	No
4c. What controls will be used to prevent unauthorized monitoring?	Access controls (User ID and passwords) will be used to prevent unauthorized monitoring.
5a. Under which Systems of Record notice (SOR) does the system operate? Provide number and name.	Research is currently being conducted regarding GIS SOR requirements.

3.4 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
5b. If the system is being modified, will the SOR require amendment or revision? Explain.	Research is currently being conducted regarding GIS SOR requirements.

3.5 CRP Signup Tool

3.5 DATA IN THE SYSTEM	
1. Generally describe the information to be used in the system in each of the following categories: Customer, Employee, and Other.	Customer: The system generates an ArcView GIS Layout (map) with the offered area delineated and related determinations and calculations provided on the map based on soil inputs and desired/acceptable preservation practices based on the geographical region. This is generated to come up with different scenarios for possible CRP offers during signup. Employee: N/A
2a. What are the sources of the information in the system?	All data is owned by FSA with the exception of the SSURGO Soils shapefiles, which are owned by USDA/Natural Resources Conservation Service (NRCS)
2b. What USDA files and databases are used? What is the source agency?	The application uses SSURGO soils shapefiles, Common Land Unit shapefiles, Mosaicked Digital Orthophotography imagery, FSA soil data files, which contains data related to NRCS SSURGO soils such as FSA rental rates, erosion factors, hydrographic unit shapefiles, and conservation priority area shapefiles.
2c. What Federal Agencies are providing data for use in the system?	USDA/NRCS
2d. What State and Local Agencies are providing data for use in the system?	None
2e. From what other third party sources will data be collected?	None
2f. What information will be collected from the customer/employee?	COF Employees will delineate boundaries of CRP offers with the help of producers. COF Employees may enter a different Rainfall factor, Climate factor, or Maintenance Rate per COF policy.
3a. How will data collected from sources other than the USDA records and the customer be verified for accuracy?	No data is collected from other sources
3b. How will data be checked for completeness?	N/A

3.5 ACCESS TO THE DATA	
1. Who will have access to the data in the system (Users, Managers, System Administrators, Developers, Other)?	COF staff, ITS and FSA Help Desk staff, State GIS Administrators.
2. How is access to the data by a user determined? Are criteria, procedures, controls, and responsibilities regarding access documented?	The data is accessible to anyone with access to the COF server, this would include FSA COF staff, State GIS Specialists, and ITS and FSA Help Desk staff.
3. Will users have access to all data on the system or will the user's access be restricted? Explain.	Users must have Windows user name and passwords. Users' access is restricted to users placed in Active Directory groups:
4. What controls are in place to prevent the misuse (e.g. browsing, unauthorized use) of data by those having access?	GIS contains it own host based Identification and Authentication.
5a. Do other systems share data or have access to data in this system? If yes, explain.	No, however data collected by application—offer acreage, offer soils, predominant hydrographic unit code, offer centroid—is manually passed to the FSA Conservation On-Line Offer System.
5b. Who will be responsible for protecting the privacy rights of the customers and employees affected by the interface.	N/A
6a. Will other agencies share data or have access to data in this system (International, Federal, State, Local, Other)?	N/A.
6b. How will the data be used by the agency?	N/A
6c. Who is responsible for assuring proper use of the data?	N/A

3.5 ATTRIBUTES OF THE DATA	
1. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?	Yes
2a. Will the system derive new data or create previously unavailable data about an individual through aggregation from the information collected?	Yes, the system will derive data such as acreage in each soil type included in offer acreage, offer centroid, predominant Hydrologic Unit Code.
2b. Will the new data be placed in the individual's record (customer or employee)?	The data is manually passed to the Conservation On-line System (COLS)

3.5 ATTRIBUTES OF THE DATA	
2c. Can the system make determinations about customers or employees that would not be possible without the new data?	The application makes no determination about customer such as program eligibility.
2d. How will the new data be verified for relevance and accuracy?	Calculated data is tested by developers and by Kansas City Acceptance Testing Office.
3a. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	No data is being consolidated by the application.
3b. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain.	No processes are being consolidated.
4a. How will the data be retrieved? Can it be retrieved by personal identifier? If yes, explain.	Data cannot be retrieved by personal identifier because personal identifiers are not used.
4b. What are the potential effects on the due process rights of customers and employees of: • consolidation and linkage of files and systems; • derivation of data • accelerated information processing and decision making; • use of new technologies.	N/A, no personal information is involved thus due process is not applicable.
4c. How are the effects to be mitigated?	N/A

3.5 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
1a. Explain how the system and its use will ensure equitable treatment of customers and employees.	The system does not support any functionality for its employees. The CRP Offer tool does not evaluate in data from the customers as it uses vegetation, soils, and the CLU layer to delineate the practice areas and its viability.
2a. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	The application is distributed through ITS ensuring consistent application versioning. The application data is stored on the local COF Servers. All data files are distributed by FSA ensuring consistency between data. All data collected is stored in the same data format.
2b. Explain any possibility of disparate treatment of individuals or groups.	N/A

3.5 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
2c. What are the retention periods of data in this system?	Indefinitely
2d. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	N/A
2e. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	The calculated data is passed to the Conservation On-line System (COLS), which uses its own databases. The data used to calculate CRP Determination Tool data is backed up to COF tapes and DVDs on a predetermined schedule.
3a. Is the system using technologies in ways that the USDA has not previously employed (e.g. Caller-ID)?	No
3b. How does the use of this technology affect customer/employee privacy?	N/A
4a. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	There is no monitoring of individuals, but the system will be able to identify and locate farmland through aerial photography.
4b. Will this system provide the capability to identify, locate, and monitor groups of people? If yes, explain.	No
4c. What controls will be used to prevent unauthorized monitoring?	Access controls (User ID and passwords) will be used to prevent unauthorized monitoring.
5a. Under which Systems of Record notice (SOR) does the system operate? Provide number and name.	Research is currently being conducted regarding GIS SOR requirements.
5b. If the system is being modified, will the SOR require amendment or revision? Explain.	Research is currently being conducted regarding GIS SOR requirements.

3.6 Grain Storage Bin Application

3.6 DATA IN THE SYSTEM	
1. Generally describe the information to be used in the system in each of the following categories: Customer, Employee, and Other.	Customer: Domestic geographic data and graphical representations (maps) if private Grain Bins. Employee: N/A

3.6 DATA IN THE SYSTEM	
2a. What are the sources of the information in the system?	FSA County Offices
2b. What USDA files and databases are used? What is the source agency?	GIS development system consists of a SQL file server and the source agency is the FSA.
2c. What Federal Agencies are providing data for use in the system?	FSA
2d. What State and Local Agencies are providing data for use in the system?	None
2e. From what other third party sources will data be collected?	None
2f. What information will be collected from the customer/employee?	Location of Bin, measurements of the bin, measurements of the produce in the bin requesting for a Market Assistance Loan (MAL), who owns the bin, and who the lien holder is.
3a. How will data collected from sources other than the USDA records and the customer be verified for accuracy?	Producers filing for a MAL at the county office level.
3b. How will data be checked for completeness?	Spot checks of the bin and the produce during the life of the MAL and all producer information must come from SCIMS.

3.6 ACCESS TO THE DATA	
1. Who will have access to the data in the system (Users, Managers, System Administrators, Developers, Other)?	Users.
2. How is access to the data by a user determined? Are criteria, procedures, controls, and responsibilities regarding access documented?	Yes, there is no restriction on users viewing the information. Using SQL access permissions, a user can be a reader of the data while others can be editors
3. Will users have access to all data on the system or will the user's access be restricted? Explain.	It will be restricted to the databases the application is responsible for managing.
4. What controls are in place to prevent the misuse (e.g. browsing, unauthorized use) of data by those having access?	GIS through ArcSDE and SQL contains it own host based Identification and Authentication.
5a. Do other systems share data or have access to data in this system? If yes, explain.	No
5b. Who will be responsible for protecting the privacy rights of the customers and employees affected by the interface.	N/A

3.6 ACCESS TO THE DATA	
6a. Will other agencies share data or have access to data in this system (International, Federal, State, Local, Other)?	No
6b. How will the data be used by the agency?	It will be used to assist with stabling MALs and performing spot checks associated with the MAL process.
6c. Who is responsible for assuring proper use of the data?	County office personnel.

3.6 ATTRIBUTES OF THE DATA	
1. Is the use of the data both relevant and necessary to the purpose for which the system is being designed?	Yes
2a. Will the system derive new data or create previously unavailable data about an individual through aggregation from the information collected?	No
2b. Will the new data be placed in the individual's record (customer or employee)?	No
2c. Can the system make determinations about customers or employees that would not be possible without the new data?	No
2d. How will the new data be verified for relevance and accuracy?	The data will be verified for accuracy through spot checks at the producer's site.
3a. If data is being consolidated, what controls are in place to protect the data from unauthorized access or use?	No data is being consolidated.
3b. If processes are being consolidated, are the proper controls remaining in place to protect the data and prevent unauthorized access? Explain.	No processes are being consolidated.
4a. How will the data be retrieved? Can it be retrieved by personal identifier? If yes, explain.	Data cannot be retrieved by personal identifier.

3.6 ATTRIBUTES OF THE DATA	
4b. What are the potential effects on the due process rights of customers and employees of: • consolidation and linkage of files and systems; • derivation of data • accelerated information processing and decision making; • use of new technologies.	N/A, no personal information is involved thus due process is not applicable.
4c. How are the effects to be mitigated?	N/A

3.6 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
1a. Explain how the system and its use will ensure equitable treatment of customers and employees.	The system does not support any functionality for its employees. The commodity type, the pack factors, and the maximum volume of the storage bin are the determinants of the Market Assistance Loans. Customer data does not enter into the decision of the loan giver.
2a. If the system is operated in more than one site, how will consistent use of the system and data be maintained in all sites?	The application is distributed through ITS ensuring consistent application versioning. The application data is stored on the local COF Servers. All data files are distributed by FSA ensuring consistency between data. All data collected is stored in the same data format.
2b. Explain any possibility of disparate treatment of individuals or groups.	N/A
2c. What are the retention periods of data in this system?	Indefinitely
2d. What are the procedures for eliminating the data at the end of the retention period? Where are the procedures documented?	N/A
2e. While the data is retained in the system, what are the requirements for determining if the data is still sufficiently accurate, relevant, timely, and complete to ensure fairness in making determinations?	N/A The lifecycle in the MAL program last only 9 months within a given growing cycle.
3a. Is the system using technologies in ways that the USDA has not previously employed (e.g. Caller-ID)?	No

3.6 MAINTENANCE OF ADMINSTRATIVE CONTROLS	
3b. How does the use of this technology affect customer/employee privacy?	N/A
4a. Will this system provide the capability to identify, locate, and monitor individuals? If yes, explain.	There is no monitoring of individuals, but the system will be able to identify and locate farmland through aerial photography and satellite photography.
4b. Will this system provide the capability to identify, locate, and monitor groups of people? If yes, explain.	No
4c. What controls will be used to prevent unauthorized monitoring?	Access controls (Windows authentication and passwords) will be used to prevent unauthorized monitoring.
5a. Under which Systems of Record notice (SOR) does the system operate? Provide number and name.	Farm Records File (Automated), USDA/FSA-2 Applicant/Borrower, USDA/FSA-14
5b. If the system is being modified, will the SOR require amendment or revision? Explain.	Yes, it depends upon the degree to which the system has been modified.

PRIVACY IMPACT ASSESSMENT AUTHORIZATION MEMORANDUM

I have carefully assessed the Privacy Impact Assessment for the

Geospatial Information Systems (GIS)
(System Name)

This document has been completed in accordance with the requirements of the EGovernment Act of 2002.

We fully accept the changes as needed improvements and authorize initiation of work to proceed. Based on our authority and judgment, the continued operation of this system is authorized.

(for Ted Payne) 08/16/2007

System Manager/Owner
OR Project Representative
OR Program/Office Head

Date

Agency's Chief FOIA officer
OR Senior Official for Privacy
OR Designated privacy person

Date

Agency CIO

Date

Appendix A - Acronyms

AIS	Automated Information System
C2	Controlled Access Protection, Class Two
CD-ROM	Compact Disk-Read Only Memory
CMP	Configuration Management Plan
COMPUSEC	Computer Security
COMSEC	Communications Security
COOP	Continuity of Operations Plan
USDA	United States Department of Agriculture
FOIA	Freedom of Information Act
FOUO	For Official Use Only
FSA	Farm Service Agency
FTP	File Transfer Protocol
HP	Hewlett Packard
I&A	Identification and Authentication
IAW	In accordance with
ID	Identification
INFOSEC	Information Security
IP	Internet Protocol
ISSO	Information Systems Security Officer
LAN	Local Area Network
NCSC	National Computer Security Center
NRCS	Natural Resources Conservation Service
NT	New Technology
OPSEC	Operations Security
PA	Privacy Act
SA	System Administrator
SAAR	System Authorization Access Request
SBU	Sensitive-but-Unclassified
SCIMS	Service Center Information Management System
SFUG	Security Features User Guide
SLC	System Life Cycle
SOP	Standing Operating Procedure
SQL	Structured Query Language
STD	Standard
TFM	Trusted Facility Manual
TG	Trusted Guide
TSP	
USERID	User Identification
U.S.C	United States Code
WWW	World Wide Web

Appendix B - GIS – Specific Acronyms

ArcGIS	Software platform designed by ESRI
ArcSDE	Spatial Database Engine
CCMs	Compressed County Mosaics
CLU	Common Land Unit
COF	FSA Administering County Office
COLS	Conservation On-line System ()
CRP	Conservation Reserve Program
DAFP	Deputy Administrator, Farm Programs
ESRI	Environmental Systems Research Institute
GDW	Geospatial Data Warehouse
GIS	Geospatial Information Systems ()
GSB	Grain Storage Bin Application
ITS	OCIO/Information Technology Services Division
MAL	Market Assistance Loans
MOU	Memorandum of Understanding
MRT	Master Reference Table
NAIP	National Agricultural Imagery Program
NRCS	Natural Resources Conservation Service
PECD	Production, Emergency, and Compliance Division
PIA	Privacy Impact Analysis
RA	Replication Application
RMA	Rick Management Association
SCIMS	Service Center Information Management System ()
SOR	Systems of Record notice
SSURGO	Soil Survey Geographic (SSURGO) Database