

For: State and County Offices except Puerto Rico and Virgin Islands

Food, Feed, Seed, and Fertilizer (FFSF) Facilities Geospatial Point Layer

Approved by: Deputy Administrator, Farm Program



1 Overview

A Background

The Food, Feed, and Seed Facility Listing and Fertilizer Facility Listing are records of FFSF facilities essential to the U.S. in response to a national emergency.

FFSF facility listing records are currently:

- stored by ITSD
- updated through State and County Office requests
- accessible only in text file format
- not compatible with geospatial software allowing for quick graphic display and analysis.

This notice provides for the initial phase of the project to develop a geospatial point layer, represented by point features that will indicate the location of each FFSF facility listing on Earth. The geospatial facility layer, combined with FFSF facility listing records, will be used for any future emergency program needs.

State and County Offices will assist in the initial phase of the project by providing the National Office geospatial point locations of FFSF facility sites, using Geographic Information Systems (GIS) and in-house, heads-up, point-mode digitizing.

Disposal Date	Distribution
April 1, 2008	State Offices except Puerto Rico and Virgin Islands; State Offices relay to County Offices

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1 Overview (Continued)

B Purpose

This notice instructs State and/or County Offices to:

- use ArcMap to create, manage, maintain, and transfer a geospatial facility point shapefile (.shp) as defined
- create, maintain, and perform additional tasks for the new geospatial datasets, such as geodata and metadata management
- complete tasks in this notice to ensure delivery of the geospatial point layer to the National Office by **April 9, 2007**
- use the November 2006 Food, Feed, and Seed Facility Listing and Fertilizer Facility Listing received from ITSD for this project
- continue updating FFSF facility listings by submitting FSA-249's and FSA-250's according to 1-DP, paragraphs 123 and 140.

2 County Office Action

A Updating FFSF Facility Listings

Using 1-DP, paragraphs 123 and 140, all discrepancies in the November 2006 FFSF facility listings shall be updated immediately when identified through this project. Discrepancies include, but are not limited to, the following:

- adding new facilities
- deleting old facilities
- verifying addresses.

B Determining Geospatial Facility Point Locations

County Offices shall determine point locations for each FFSF facility located within the county and contained on the November 2006 FFSF facility listing printouts received from ITSD. The Inventory Tool, contained in Maintenance Tool v4.0.8 and used with digital imagery, will enable users to visually locate and digitize this dataset from their computer. This point feature dataset will be saved as a shapefile with a metadata text file associated to it. Step-by-step instructions for determining point locations for each FFSF facility located within the county are contained in Exhibit 1. When determining point locations, County Offices shall use the most recent NAIP 1 or 2 meter imagery file available.

Note: County Offices shall **not** perform a separate on-site inspection to verify facility site operations, status, or location for this project. However, County Offices shall take advantage of site verifications while on other official field duties.

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2 County Office Action (Continued)

C Populating the Facility Point Layer Attribute Table

Instructions for creating point attribute data for digitized facilities are contained in Exhibit 1.

County Offices will create 2 point attribute fields before any point placement. This table describes the 2 field headings County Offices shall create and the information to be entered into those fields.

Field Name	Data Definition
FacSerNo	Enter the unique 9-digit facility serial number (FacSerNo) from November 2006 facility listings. Facility serial numbers are issued by State Offices and represents a 4-digit ID number following the State and county code. Example: 482890003
FacType	ENTER either facility type (FacType), as applicable: <ul style="list-style-type: none">• “1”, if on Food, Feed, and Seed Facility Listing• “2”, if on Fertilizer Facility Listing.

Note: The computer will automatically populate 3 additional attribute fields (FID, Shape, and ID) that shall **not** be edited by County Offices.

D Processing New Facility Sites

County Offices shall:

- determine point coordinates for new FFSF facility sites that are **not** on the November 2006 facility listings and submit FSA-249's and/or FSA-250's, as applicable, to Kansas City through their State Office, to update facility listing records
- continue to populate the FacType and FacSerNo fields after contacting the State Office to obtain the next available sequential facility serial number

Note: The county level geospatial point file is stored on the shared server of the administering Service Center. All updates are maintained on this file that will be transferred periodically to the State Office for further data management.

- **not** determine point coordinates for FFSF facility sites that are no longer operational but still shown on FFSF facility listings.

Note: Submit FSA-249's and/or FSA-250's to Kansas City, through their State Office, to remove old FFSF facility listings from the database.

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2 County Office Action (Continued)

E Directory Structure

This notice does **not** follow the Manual for Managing Geospatial Datasets in Service Centers for the following:

- directory structure
- file location
- naming convention
- number of files to create.

Note: Permissions and global group assignments to users, as defined in the manual, create various conflicts that prevent this notice from following the manual.

County Offices shall have **only** 1 point feature shapefile per county containing:

- both Food, Feed and Seed Facility and Fertilizer Facility locations, saved on the Service Center shared server
- all point features initially digitized for each FFSF facility listing, reflecting all updates.

To better manage the dataset, the shapefile will need to be stored in a subfolder. County Offices will create this subfolder, as shown in Exhibit 1, at **f:/geodata/project_data/fsa**.

The name of the sub-folder shall be **ffsf** to represent the 1st letter of the 4 types of facilities captured in the dataset. The resulting directory structure shall be **f:/geodata/project_data/fsa/ffsf**.

Note: The **ffas** subfolder will **only** need to be created once and **must** be in the correct location before the initial creation of the geospatial point feature dataset using the Inventory Tool. Before populating this directory with facility point layer data, ensure that the folder does **not** contain any other data.

To prevent deletion, tampering, or moving of geospatial point feature files and folders created as a result of this notice, State and County Offices should inform State Geodata Administrators and Local Geodata Administrators of the content of this notice, as applicable. Once the changes to the permissions and structure are approved, they will be reflected in a Manual for Managing Geospatial Datasets in Service Centers update.

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2 County Office Action (Continued)

F File Naming Convention

County Offices will need to use the following unique naming convention to avoid identical named shapefiles from over-writing each another, such as when:

- multiple counties exist in a Service Center
- county files are transferred to the State Office.

Each county's geospatial point feature shapefile will only need to be named once. This will happen during the initial creation of the shapefile while using the Inventory Tool. County Offices shall use the naming convention "**ffsf_p_<ssccc>_yyyymmdd.shp**". This table provides naming convention portion definitions.

Portion	Definition
ffsf	Always the 1st letter from each of the 4 facility types.
p	Always p for point feature type.
<ssccc>	Insert State and county code.
yyyymmdd	Insert date as 4-digit year, 2-digit month, and 2-digit day.
.shp	Always computer-generated file extension.

Example: The Leon County, Texas, FFSF shapefile created March 21, 2007, would be formatted as **ffsf_p_48289_20070321.shp**.

Note: Until further notice, the yyyymmdd shall be the **initial** creation date of the FFSF geospatial point feature shapefile.

G Employee Access Permissions and Global Groups

Permissions and global group assignments provide access permissions to data within the geodata folder structure for Service Center users. Until all permission problems are fixed, a single temporary directory location and shapefile will be created because:

- employees tasked with creating the geospatial dataset may not be the same employees with permissions to the folder in which it should be saved
- the Manual for Managing Geospatial Datasets in Service Centers suggests a separate geospatial file for fertilizer facilities.

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2 County Office Action (Continued)

H Saving the FFSF Facilities Listings ArcGIS Project

ArcGIS (.mxd) project files are created when opening the software to create, update, and save geospatial datasets. These ArcGIS files do:

- **not** store geospatial data or layers
- store property information about the project.

Users shall do the following to create the subfolder and then save ArcGIS project file.

Step	Action	
1	Navigate to f:/geodata/project_data/fsa .	
2	Create the ffsf subfolder.	
3	Name the ArcGIS project file as follows.	
	Portion	Definition
	ffsf	Always the 1st letter from each of the 4 facility types.
	<ssccc>	Insert State and county code.
.mxd	Always computer-generated file extension.	

Example: The Leon County, Texas, ArcGIS project file would be formatted as **ffsf_48289.mxd**.

I Metadata File

Multiple documents exist for capturing and maintaining geospatial metadata. For this project, County Offices shall follow the Manual for Managing Geospatial Datasets in Service Centers, Appendix B, pages 26-27 that lists the minimum 21 metadata elements that **must** be captured.

County Offices shall create a text document, such as Word, WordPad, or NotePad that includes all elements of the required metadata. Text documents should closely resemble the format or layout used in the Manual for Managing Geospatial Datasets in Service Centers, Appendix B, pages 26-27. One metadata file shall be created and updated, as required, for each county that is administered by the Service Center. Use the same directory location and naming convention as found in subparagraphs E and F.

Note: The metadata file extension:

- shall reflect the text format it was created in, such as .doc for Word documents
- will **not** be .mxd.

Any requests for assistance or questions related to this notice shall be directed to State Office GIS Coordinator/Specialists.

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2 County Office Action (Continued)

J Verifying FFSF Facility Listings and Point Layers Accuracy

County Offices shall verify and update **all** mismatched records in both the geospatial point feature shapefile and ArcGIS project file to ensure complete and accurate datasets.

Examples: Mismatched record examples include but are not limited to:

- geospatial point feature shapefile was created for a new FFSF facility, but FSA-249/FSA-250 has **not** been processed by Kansas City
- geospatial point feature shapefile was **not** created for an existing FFSF facility because the site/facility exists but ceased operations, but FSA-249/FSA-250 to delete the existing FFSF facility has not been processed Kansas City
- FSA-249/FSA-250 to add a new or delete an existing FFSF facility was processed, but the geospatial point feature shapefile was **not** created in or was removed from the geospatial point file.

K Transferring the Geospatial Point Feature Dataset

County Offices shall send an e-mail to their State Office GIS Specialist/Coordinator informing them that the FFSF facility geospatial point feature shapefile has been completed and saved in **f:/geodata/project_data/fsa/ffsf** for State Office retrieval.

3 State Office Action

A Retrieving, Managing, and Exporting County Shapefiles

State Office GIS specialist or coordinator shall:

- create a directory to save **all** county FFSF shapefiles, as they are received
- copy the FFSF facility listings geospatial point feature shapefile from each County Office server by remote access through the State Office server

Note: The file extensions .shp, .shx, .dbf, and .prj are required when the FFSF facility listings geospatial point feature shapefiles are copied, to ensure that the shapefile will open with the ArcGIS software

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3 State Office Action (Continued)

A Retrieving, Managing, and Exporting County Shapefiles (Continued)

- use the GIS merge function to combine all Service Center geospatial point feature shapefiles into 1 State FFSF facility geospatial point feature shapefile and name the shapefile **ffsf_p_<ss>_yyyymmdd.shp**

Note: This table provides naming convention portion definitions.

Portion	Definition
ffsf	Always the 1st letter from each of the 4 facility types.
p	Always p for point feature type.
<ss>	Insert State code.
yyyymmdd	Insert date as 4-digit year, 2-digit month, and 2-digit day.
.shp	Always computer-generated file extension.

Example: The merged shapefile for Texas, created on March 28, 2007, would be **ffsf_p_48_20070328.shp**.

- ensure all County Office shapefiles were retrieved correctly, named correctly, and no data was lost when files were retrieved and merged
- create and store the merged shapefile in a directory structure equivalent to the Service Centers “**f:/geodata/project_data/fsa/ffsf**” directory structure
- follow Notice IRM-372 to WinZip and encrypt the file
- e-mail the encrypted file to Kerry Sefton, PECD at **kerry.sefton@wdc.usda.gov**.

Note: State Office GIS Coordinator/Specialists shall contact Kerry Sefton, PECD at 202-720-6120 with the encryption password.

Creating the Facility Point Layer

This table provides the steps for County Offices to create FFSF point layers.

Step	Action
1	Open a Windows Explorer window and create a folder called ffsf in the directory structure f:\geodata\project_data\fsa\ .
2	Minimize or close Windows Explorer.
3	Navigate to ArcMap (Start, All Programs, ArcGIS, ArcMap). Note: The following directions are for the ArcGIS 9.1 environment, using the CLU Maintenance Tool v 4.0.8 application.
4	CLICK " CLU Maintenance Tool ", CLICK " Start using ArcMap ".
5	CLICK " CLU control panel ".
6	Add the most recent NAIP 1-meter or replacement base map imagery. See ArcGIS CLU Maintenance Tool User Guide 3.0.6 as needed for imagery loading. Note: ArcGIS CLU Maintenance Tool User Guide 3.0.6 and 4.0.8 are the same.
7	If needed, use " CLU Control Panel " to remove any inventory layers from the project, as only 1 layer can be loaded at a time.
8	In CLU Maintenance Tool drop-down menu, select " Utilities Toolbar ".
9	In " Utilities " toolbar, CLICK " FSA Inventory Tools ". See ArcGIS CLU Maintenance Tool User Guide 3.0.6, as needed, for reference to the Inventory Tools.
10	On " Inventory " toolbar, CLICK " Create New Inventory Layer ". In " Inventory layer " dialog box, select " Point " as the desired feature type. Navigate to " f:\geodata\project_data\fsa\ffsf " folder created in Step 1 and save the new inventory layer shapefile with the name " ffsf_p_<ssccc>_yyyymmdd.shp " (ssccc is numeric State and county code).
11	On " Inventory " toolbar, CLICK " Attribute Inventory Layer ".
12	CLICK " Add Attributes to Layer ".
13	Create the Facility Serial Number attribute, as follows: <ul style="list-style-type: none"> • at Field Name, ENTER "FacSerNo" • at Field Type, select "Small Integer" • at Field Width, ENTER "9". • CLICK "Add Field".
14	CLICK " Add Attributes to Layer ".
15	Create the Facility Type attribute, as follows: <ul style="list-style-type: none"> • at Field Name, ENTER "FacType" • at Field Type, select "Small Integer" • at Field Width, ENTER "1". • CLICK "Add Field".
16	CLICK " Close Attributes Form "
17	Use the " Pan " tool to pan to the first FFSF facility to be captured.

Creating the Facility Point Layer (Continued)

Step	Action
18	Zoom in to a scale of 1:4800 or less and pan again, if needed, to ensure that the FFSF facility is visible in the ArcMap workspace.
19	<p>On “Inventory” toolbar, CLICK “Add Inventory Point”.</p> <p>Click the location where the point is to be placed, directly on top of the FFSF facility structure, as seen in the imagery. An “Identify/Edit Results” window will pop up, so that the following attribute data may be entered:</p> <ul style="list-style-type: none"> • in FacSerNo Field, enter the corresponding facility serial number, as listed in the Facility Listings provided by ITSD • in FacType field, ENTER <ul style="list-style-type: none"> • “1”, if facility is on Food, Feed, and Seed Facility Listing • “2”, if facility is on Fertilizer Facility Listing • CLICK “Apply” • “Do you want to save your edits?” will be displayed, CLICK “Yes”. <p>Note: FID, Shape, and ID Fields will automatically be generated and do not require user input.</p>
20	Pan to the next FFSF facility and repeat Step 18 until all county facilities have been added to the new Inventory shapefile.
21	Save the ArcGIS project as “ ffsf_<ssccc>.mxd ”, in the f:\geodata\project_data\fsa\ffsf directory (ssccc is State and county code).
22	Ensure that the metadata file is created, named, stored, and updated according to the Manual of Managing Geospatial Datasets in Service Centers, Appendix B
23	Close the project and ArcMap.