

For: State and County Offices

**In and Out Farm Transfers in the ArcGIS/ArcSDE Environment**

Approved by: Acting Deputy Administrator, Farm Programs



**1 Overview**

**A Background**

FSA is in the process of incorporating geospatial technologies into its business practices. While in and out county transfers of farms have long been a part of FSA’s business needs, it is only recently, with the transition from paper maps to digital spatial data that in and out transfers must be dealt with in the digital realm.

**Note:** This notice does **not** apply to any nondigitized areas.

**B Purpose**

This notice informs State and County Offices of the following:

- procedure for in and out transfers within the ArcGIS/ArcSDE environments
- replaces procedure in 8-CM, paragraph 137.

**2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE**

**A Digital In and Out Transfers Within ArcGIS/ArcSDE**

For the purpose of digital in and out transfers, each County Office involved in the transfer shall be considered a receiving or transferring County Office. The receiving County Office must add the in-transferred digital records, including the common land unit (CLU) and wetlands points to their official digitized/certified CLU layer and maintain this data as long as the land is administered by the receiving County Office. The transferring County Office shall remove the out-transferred digital records from their official CLU layer and create a separate out-transfer shapefile for record keeping purposes.

<b>Disposal Date</b>	<b>Distribution</b>
February 1, 2007 2-14-06	State Offices; State Offices relay to County Offices

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2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

A Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

CLU must be certified in both the transferring and receiving County Offices for the in and out transfer to be considered official. In the case that 1 County Office is certified and the other is not, see 3-CM, paragraph 73.5.

This procedure shall apply to all existing transferred land and any future in and out transfers. Adherence to this procedure is necessary as other methods of working with in and out transfers in this environment may lead to database integrity issues.

As digital in and out transfers are examples of CLU maintenance, the responsibility for completing transfers is with the County Office. The transferring County Office is responsible for the initial digitizing of transferred land.

If and when dealing with legacy policy and nondigital in and out transfers, both administrative and physical County Offices will follow 3-CM, paragraphs 71 through 79.

3 Procedure for Digital In and Out Transfers within ArcGIS/ArcSDE

A In and Out Transfers Directory Tree Structure

Before working with digital CLU in and out transfers data, 2 in and out transfers working folders shall be set up to organize and store files. These working folders will be on the server and accessible by all FSA Service Center employees. Each Service Center’s Local Geodata Administrator shall create the in and out transfers working directory. In addition to the current geodata directory tree structure, create the in and out transfers working directory according to the following.

Step	Action
1	Open Windows Explorer and maneuver to directory tree folder “f:/geodata/project_data/fsa”.  <b>Note:</b> For assistance on browsing to folders in a directory tree, contact your State GIS Specialist/Coordinator.
2	Once in the “fsa” folder, create a new folder that will be contained within the “fsa” folder. Name the new folder “out_transfers”.  <b>Note:</b> For assistance on creating folders, contact your State GIS Specialist/Coordinator.
3	Create another folder within the “fsa” folder called “in_transfers”.

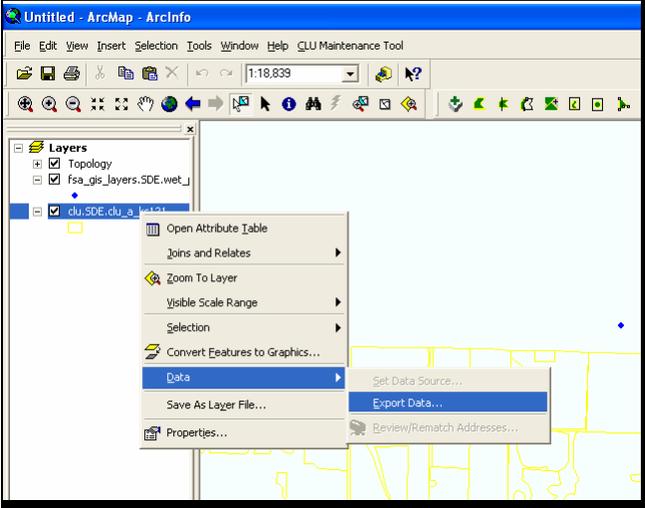
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2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

B Query of CLU’s to be Transferred

The following provides steps:

- for a transferring County Office to query out the polygons (fields, tracts, or farms) to be transferred to the receiving County Office
- on converting the out-transferred polygons to an out-transfer shapefile, separate from the official CLU layer.

Step	Action
1	Verify that a current backup of the CLU layer exists before working with in and out transfers.  <b>Note:</b> Contact your State GIS Specialist for assistance if needed.
2	Start the ArcGIS CLU Maintenance Tool and load the necessary files (i.e., CLU, CRP Table, Wetlands, etc.).
3	Click on the CLU Maintenance Tool drop-down menu and check (✓) the box next to Maintenance Toolbar to open the CLU Maintenance Toolbar.
4	Using the search tool (green binoculars) or the select features tool, select the polygons to be transferred.
5	Use the CRP Toolbar to “Join the CRP Table to the CLU Attribute Table”.  <b>Note:</b> See the CLU Maintenance Tool User Guide for assistance if needed.
6	Right click on the CLU layer name in the ArcGIS Table of Contents, highlight “Data”, and click “Export Data”.  
7	In the Export Data popup window, select to export the selected features. Make sure the radial button for “Use the same coordinate system as this layer’s coordinate system” is selected. Click the folder button to browse to a location to save the exported data. Go to Step 8.

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### 2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

#### B Query of CLU's to be Transferred (Continued)

Step	Action
8	<p>In the Saving Data window, browse to “f:/geodata/project_data/fsa/out_transfers” and make sure that “Save as Type” is set to “shapefile”.</p> <p>The naming convention will be “ot_&lt;st&gt;&lt;nnn&gt;_clu_a_&lt;st&gt;&lt;nnn&gt;.shp”.</p> <ul style="list-style-type: none"> <li>• “ot” is short for out transfer.</li> <li>• The 1<sup>st</sup> “&lt;st&gt;&lt;nnn&gt;” is the State abbreviation and county code of the <b>receiving</b> County Office.</li> <li>• “clu_a” indicates it is a CLU shapefile.</li> <li>• The 2<sup>nd</sup> “&lt;st&gt;&lt;nnn&gt;” is the State abbreviation and county code of the <b>transferring</b> County Office.</li> </ul> <p><b>Example:</b> “ot_mn141_clu_a_mn143.shp”</p> <p>Once the new shapefile is named correctly, click “OK”.</p> <p><b>Note:</b> Because of “Joint the CRP Table to the CLU Attribute Table” in step 5, the .dbf table associated with this shapefile will also contain any CRP information associated with any of the transferred land.</p>

#### C Query of Wetland Points to be Transferred

The following provides steps:

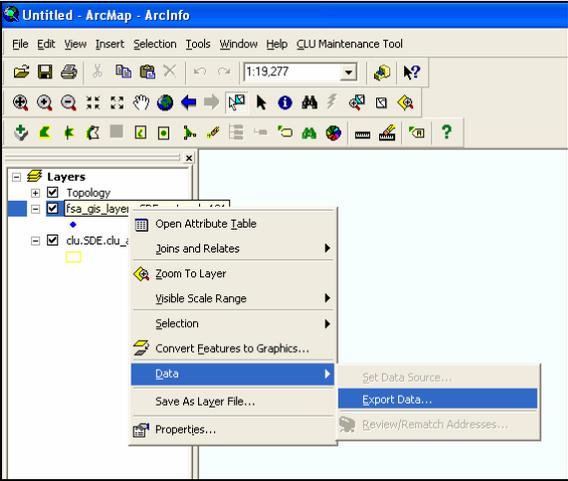
- for a transferring County Office to query out the wetland points to be transferred to the receiving County Office
- on converting the out-transferred wetlands to an out-transfer wetlands point shapefile, separate from the official wetland layer.

Step	Action
1	<p>Verify that a current backup of the CLU layer exists before working with in and out transfers.</p> <p><b>Note:</b> Contact your State GIS Specialist for assistance if needed.</p>
2	<p>If necessary, start the ArcGIS CLU Maintenance Tool and load the necessary files (i.e., CLU, CRP Table, Wetlands, etc.).</p>
3	<p>Click on the CLU Maintenance Tool drop-down menu and check (✓) the box next to Maintenance Toolbar to open the CLU Maintenance Toolbar.</p>

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2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

C Query of Wetland Points to be Transferred (Continued)

Step	Action
4	Use the select features tool to select any wetlands lying within the area being transferred.
5	<p>Right click on the wetlands layer name in the ArcGIS Table of Contents, highlight “Data”, and click “Export Data”.</p> 
6	In the Export Data popup window, select to export the selected features. Make sure the radial button for “Use the same coordinate system as this layer’s coordinate system” is selected. Click the folder button to browse to a location to save the exported data. Go to Step 8.
7	<p>In the Saving Data window, browse to <b>f:/geodata/project_data/fsa/out_transfers</b> and make sure that “Save as Type” is set to “shapefile”.</p> <p>The naming convention will be <b>ot_&lt;st&gt;&lt;nnn&gt;_wet_p_&lt;st&gt;&lt;nnn&gt;.shp</b>.</p> <ul style="list-style-type: none"> <li>• “ot” is short for out transfer.</li> <li>• The 1<sup>st</sup> “&lt;st&gt;&lt;nnn&gt;” is the State abbreviation and county code of the <b>receiving</b> County Office.</li> <li>• “wet_p” indicates it is a wetland points file.</li> <li>• The 2<sup>nd</sup> “&lt;st&gt;&lt;nnn&gt;” is the State abbreviation and county code of the <b>transferring</b> County Office.</li> </ul> <p><b>Example:</b> “ot_mn141_wet_p_mn143.shp”</p> <p>Once the new shapefile is named correctly, click “OK”.</p>

2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

**D Sending the Out Transfer Data to the Receiving County Office**

The data shall be exchanged by either of the following:

- e-mail
- compact disc (CD).

Both the CLU shapefile and the wetlands shapefile **must** be shipped to the receiving County Office.

There are, at a minimum, 3 files associated with any 1 shapefile. The file extensions are “.shp”, “.dbf”, and “.shx”. **These files must be named exactly the same and must all be sent for the shapefile to be functional.** It is recommended that any renaming of shapefiles be completed through ArcCatalog. Contact your State GIS Specialist/Coordinator if assistance is needed.

The transferring County Office shall keep a copy of the out-transferred CLU and wetland shapefiles in “**f:/geodata/project\_data/fsa/out\_transfers**”.

**E Deleting Transferred Data from the Transferring County Office’s Official CLU Layer**

The transferring County Office’s official CLU layer will no longer contain out-transferred CLU’s. CLU will instead be maintained in the receiving County Office’s CLU layer to ensure there are not duplicate records.

Steps	Action
1	Verify that a current backup of the CLU layer exists before working with in and out transfers.  <b>Note:</b> Contact your State GIS Specialist for assistance if needed.
2	If necessary, start the ArcGIS CLU Maintenance Tool and load the necessary files (i.e., CLU, CRP Table, Wetlands, etc.).
3	Click on the CLU Maintenance Tool drop-down menu and check (✓) the box next to the Maintenance Toolbar to open the CLU Maintenance Toolbar.
4	Using the search tool (green binoculars) or the select features tool, select the polygons that have been transferred.
5	Using the delete feature tool, delete the transferred polygons from the CLU layer.  <b>Note:</b> See the CLU Maintenance Tool User Guide for assistance if needed.  If a CRP record is associated with a polygon, then the record will be deleted along with the polygon.

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2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

F Adding the Transferred CLU’s to the Receiving County Office’s CLU Layer

The following:

- explains how the receiving County Office is to add the transferred CLU’s into its official CLU layer
- requires the user to add the transfer polygons to the official CLU layer by “tracing” over the polygons sent from the physical County Office.

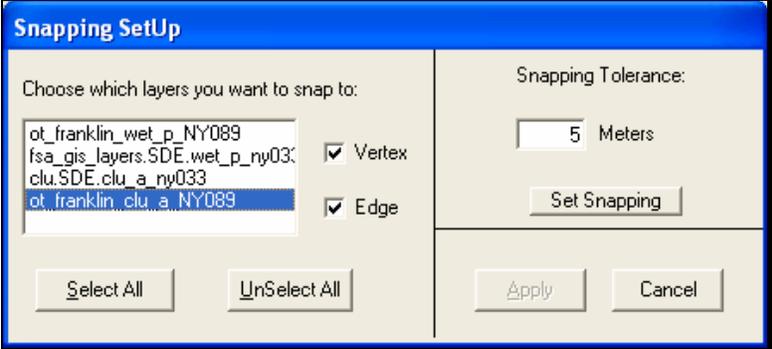
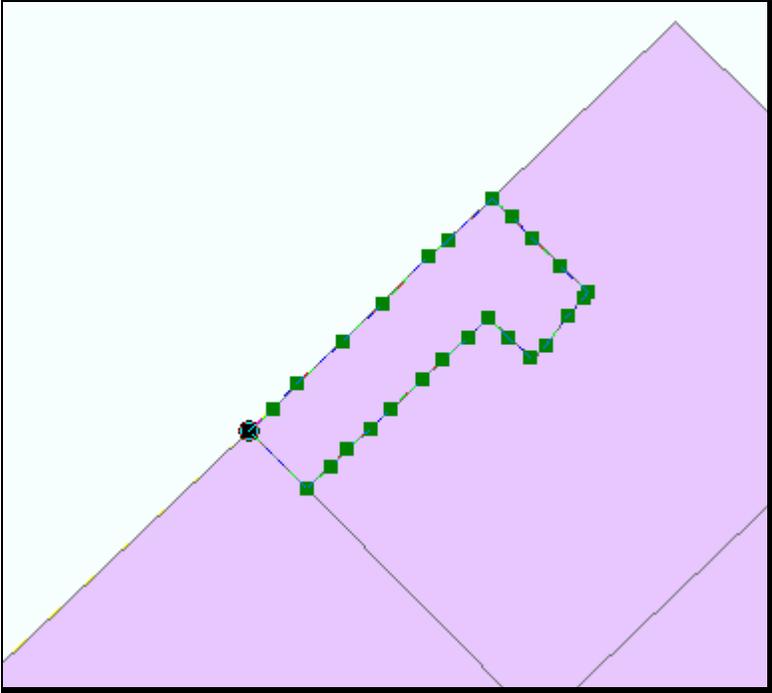
Steps	Action
1	Verify that a current backup of the CLU layer exists before working with in and out transfers.  <b>Note:</b> Contact your State GIS Specialist for assistance if needed.
2	Save the zip files or shapefiles received from the transferring County Office in <b>f:/geodata/project_data/fsa/in_transfers</b> .
3	If necessary, start the ArcGIS CLU Maintenance Tool and load the necessary files (i.e., CLU, CRP Table, Wetlands, etc.).
4	Click on the CLU Maintenance Tool drop-down menu and check (✓) the box next to Maintenance Toolbar to open the CLU Maintenance Toolbar.
5	Open the CLU Control Panel and add the transferring County Office’s transfer shapefile(s) in the “Other Layers” option.
6	Zoom in to the transfer CLU’s at a scale of at least 1:4800.
7	Click on the Add Polygon Tool, right click anywhere in the view, and click “Enable Snapping”.

The screenshot shows the ArcMap interface with the CLU Maintenance Tool. The map view displays a purple polygon. A context menu is open over the polygon with 'Enable Snapping' selected. The Layers panel on the left shows several layers including 'clu.SDE.clu\_a\_ny033'.

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2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

F Adding the Transferred CLU's to the Receiving County Offices CLU Layer (Continued)

Step	Action
8	<p>In the “Snapping SetUp” window, select to snap to the transfer shapefile sent by the transferring County Office, check (✓) both the vertex and edge boxes, and set the “Snapping Tolerance” to 5 meters. Click “Apply”.</p> 
9	<p>Carefully digitize the polygons by “tracing” over the shapefile. The tool will “snap” to the shapefile if within 5 meters of the line work. The snapping allows the user to create a CLU that corresponds exactly to the shapefile.</p> 
10	<p>As with any newly created CLU, the user must add attributes after the digitizing is complete. Attribute the polygon according to the farm/tract numbers for the receiving County Office. Make sure the fields are digitized and numbered correctly, and be sure all polygons are assigned a land class code.</p>

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### 2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

#### G Adding the Transferred Wetland Points to the Receiving County Office's CLU Layer

The following:

- explains how the receiving County Office is to add the transferred wetland points into its official wetland layer
- requires the user to add the transferred points to the official wetland layer by digitizing wetland points on top of the points sent from the physical County Office.

Steps	Action
1	Verify that a current backup of the CLU layer exists before working with in and out transfers.  <b>Note:</b> Contact your State GIS Specialist for assistance if needed.
2	Save the zip files or shapefiles received from the transferring County Office in <b>f:/geodata/project_data/fsa/in_transfers</b> .
3	If necessary, start the ArcGIS CLU Maintenance Tool and load the necessary files (i.e., CLU, CRP Table, Wetlands, etc.).
4	Click on the CLU Maintenance Tool drop-down menu and check (✓) the box next to the Maintenance Toolbar to open the CLU Maintenance Toolbar.
5	Open the CLU Control Panel and add the transferring County Office's wetland points transfer shapefiles in the "Other Layers" option.
6	Zoom in to a wetland point at a scale of at least 1:1000.
7	Open the CLU Maintenance Tool Wetland Toolbar.
8	Click on the Add Point Tool.
9	Add a point as closely as possible to the point in the shapefile.
10	Attribute the point as necessary in the Wetland Attribute Data Entry window which will open after the point is added.
11	Repeat steps 6 through 10 for each wetland point involved in the transfer.

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### 2 Policy About Digital In and Out Transfers Within ArcGIS/ArcSDE (Continued)

#### H Returning Transferred Land to the Transferring County Office

**Note:** In this subparagraph, the receiving County Office and the transferring County Office still refer to the original receiving County Office and transferring County Office.

If there were changes to the line work and acreage while the land was administered outside of its transferring County Office, then the:

- receiving County Office shall follow the steps in subparagraphs B, C, D, and E, and send the necessary data back to the transferring County Office
- transferring County Office shall:
  - follow the steps in subparagraphs F and G
  - verify any CLU with line work and acreage changes when it is transferred back to the County Office.

If there were **no** changes to the line work and acreage while the land was administered outside of its transferring County Office **and** the transferring County Office does not still have their copy of the shapefile of the transferred land, then the:

- receiving County Office shall follow the steps in subparagraphs B, C, D, and E, and send the necessary data back to the transferring County Office
- transferring County Office shall follow the steps in subparagraphs F and G.

If there were **no** changes to the line work and acreage while the land was administered outside of its transferring County Office **and** the transferring County Office still has their copy of the shapefile of the transferred land, then the:

- receiving County Office may simply delete CLU from their layer, or may choose to save a shapefile of the land being transferred but does **not** need to send it to the transferring County Office
- transferring County Office shall follow the steps in subparagraphs F and G using the shapefile which was created when CLU's were originally transferred out of the County Office.

### 4 Action

#### A County Office Action

County Offices shall have the responsibility of completing digital in and out transfers. State GIS Specialist/Coordinators may be able to assist with questions related to in and out transfers in the ArcGIS/ArcSDE environment.