UNITED STATES DEPARTMENT OF AGRICULTURE
Farm Service Agency
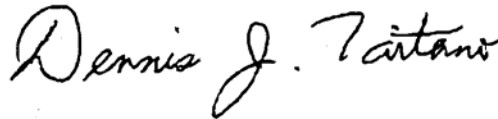Washington, DC 20250

For: State and County Offices

Transferring ArcSDE Common Land Unit (CLU) Geospatial Data Between County Offices

Approved by: Acting Deputy Administrator, Management

Dennis J. Tartano

1   Overview

A Background

When County Offices move, it is essential that an efficient and cost effective method be employed for migrating geodatabases from 1 office to another.

3-CM provides that all records shall be moved from the closing County Office to the newly designated administrative County Office. As such, CLU and other necessary geospatial data and layers stored in ArcSDE/MSSQL must be migrated to the newly designated administrative County Office, along with the other necessary files and records from the closing County Office.

The current process requires that a Service Center employee export the entire CLU data layer, CRP table, and wetlands shapefile to the new administrative County Office. That office then performs a dataload that prompts the employee to create a new annotation layer that is time consuming.

The procedure in this notice is to be performed by the State Office GIS personnel **only** and has been tested for:

- full and accurate geodatabase migration, including annotation features
- efficient administrative procedures.

B Purpose

This notice provides State and County Offices with procedure for transferring ArcSDE CLU and other necessary geospatial data layers from the closing (transferring) County Office to the new State Office designated administrative (receiving) County Office.

Disposal Date	Distribution
October 1, 2008	State Offices; State Offices relay to County Offices

1   Overview (Continued)
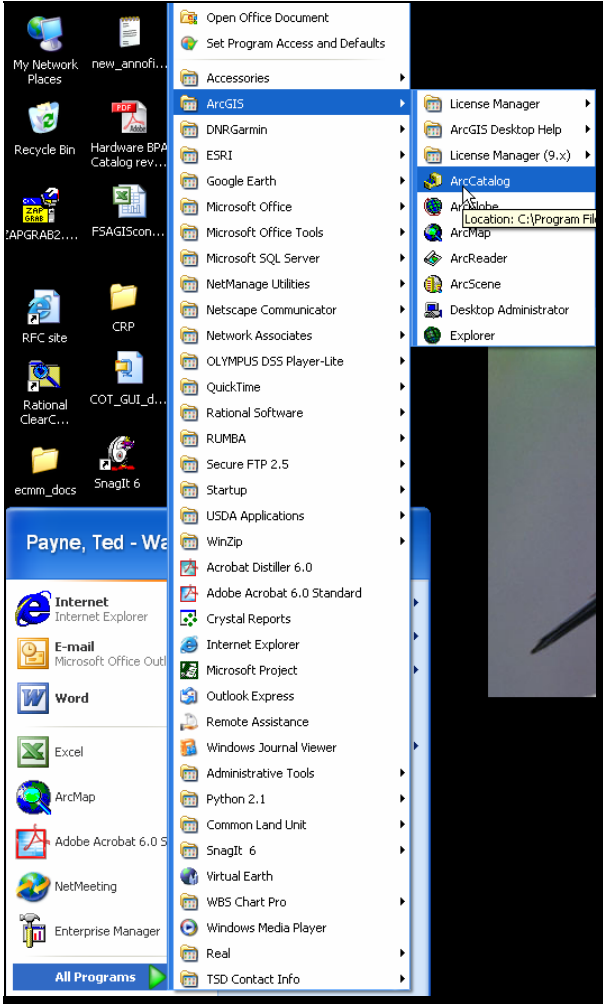
C   Contact

Questions about this notice should be directed to Ted Payne by either of the following:

- e-mail at **ted.payne@wdc.usda.gov**
- telephone at 202-720-2187.

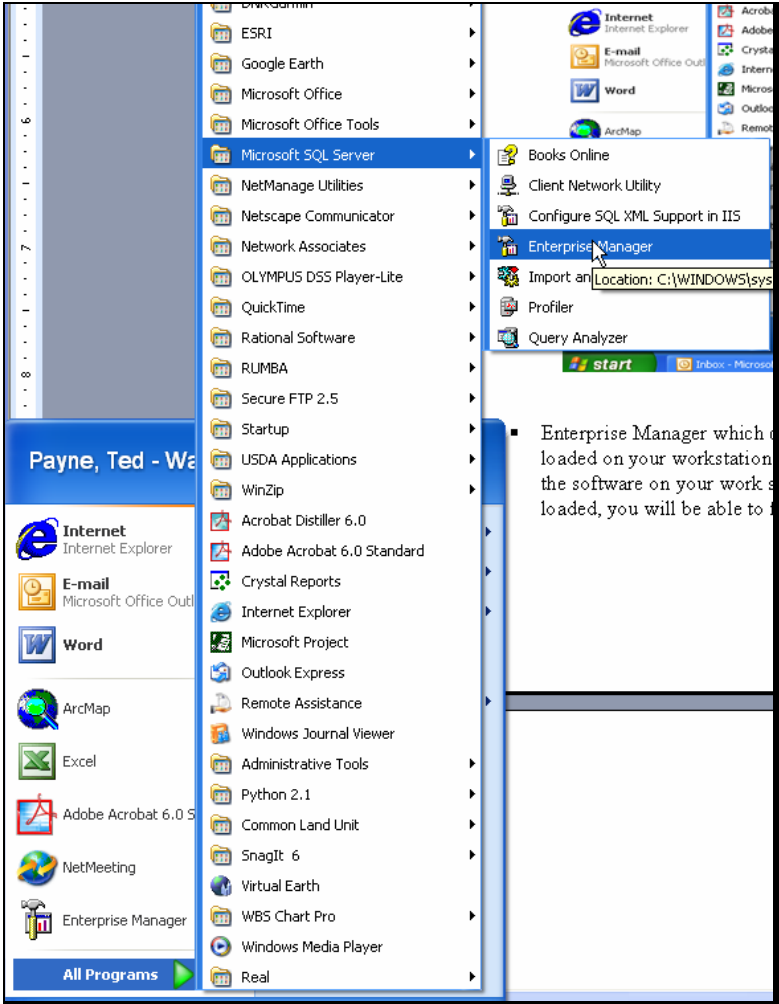**2   Procedure for Transferring ArcSDE CLU Geospatial Data**

A   Software Needed for CLU Migration

State Office GIS personnel shall transfer the geospatial data according to the following.

Step	Action
1	On the State Office workstation, open ArcCatalog 9.1, which is part of the overall client ArcGIS install, according to the following.
	From the desktop, CLICK: - "**Start**" - "**All Programs**" - "**ArcGIS**" - "**ArcCatalog**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

A   Software Needed for CLU Migration (Continued)
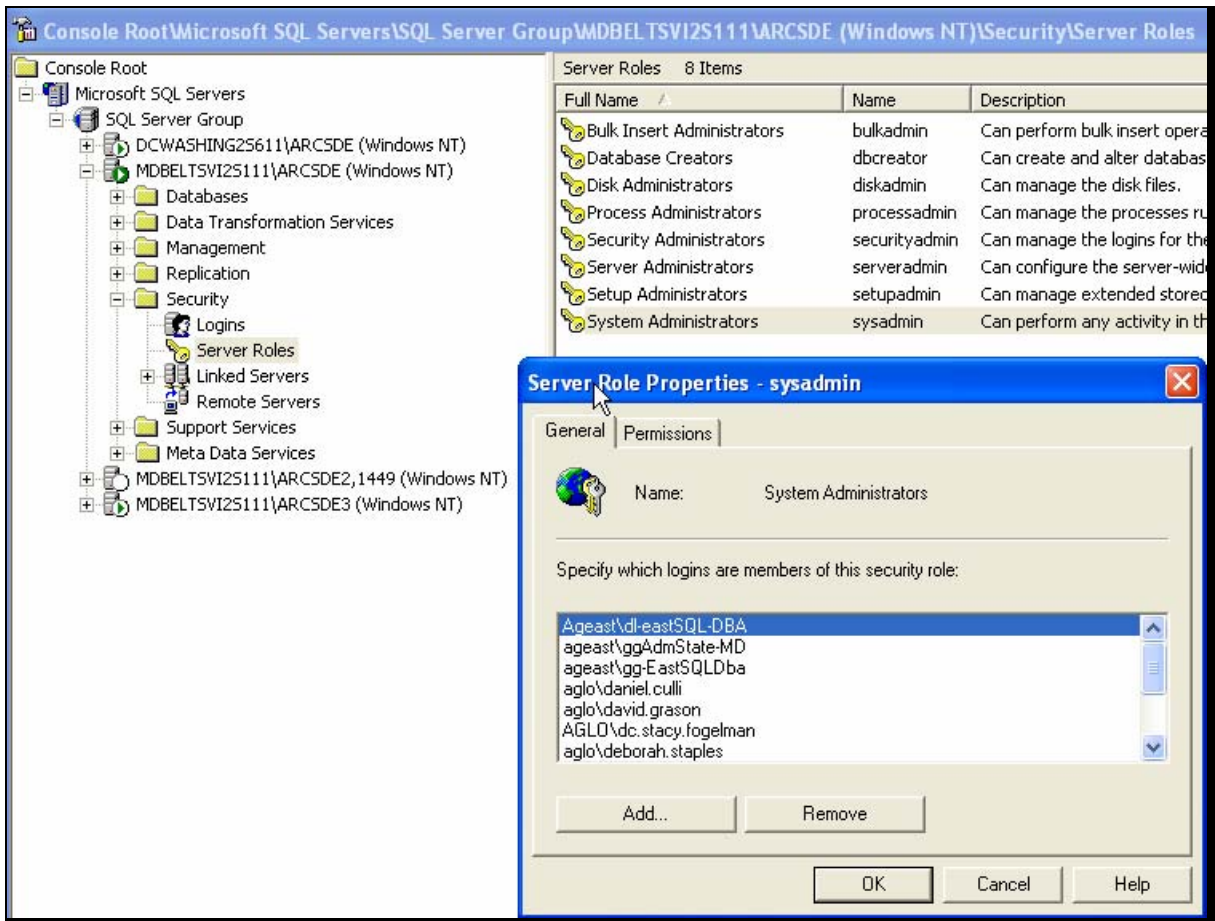
Step	Action
2	**Note:** If Enterprise Manager is **not** loaded on the State Office workstation, contact ITSD staff. Enterprise Manager is located on Team Services and is approved software. On State Office workstation, open Enterprise Manager according to the following.
	From the desktop, CLICK: • "**Start**" • "**All Programs**" • "**Microsoft SQL Server**" • "**Enterprise Manager**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

B   Access Rights Needed for Transferring ArcSDE CLU Geospatial Data

Each State Office GIS personnel or coordinator performing the annotation transfer has been given the appropriate rights in SQL at the System Administrator level in every Service Center CLU layer through the SGA group in the Active Directory.
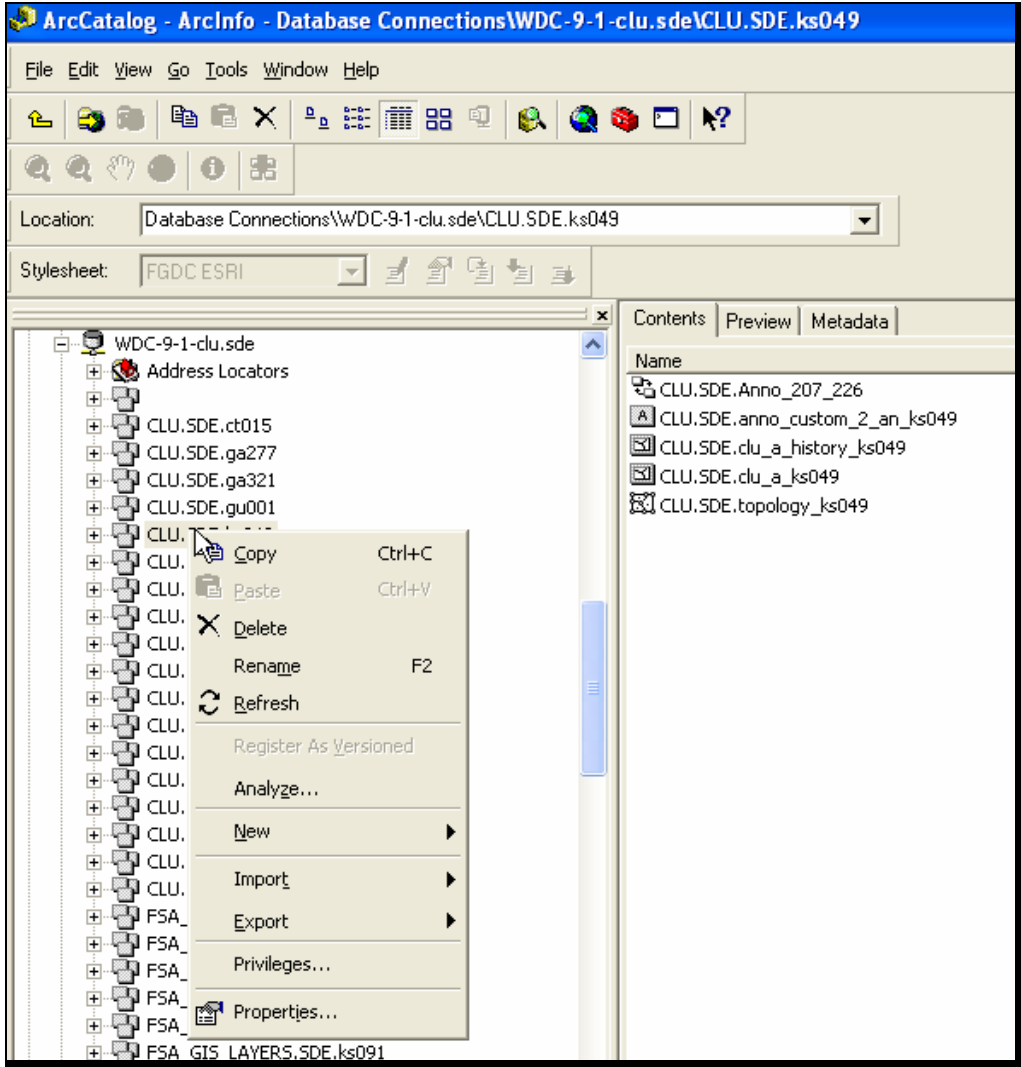
Note: The following example does **not** display SGA group with the appropriate rights, but does display the location where users would find SGA group using Enterprise Manager.

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)
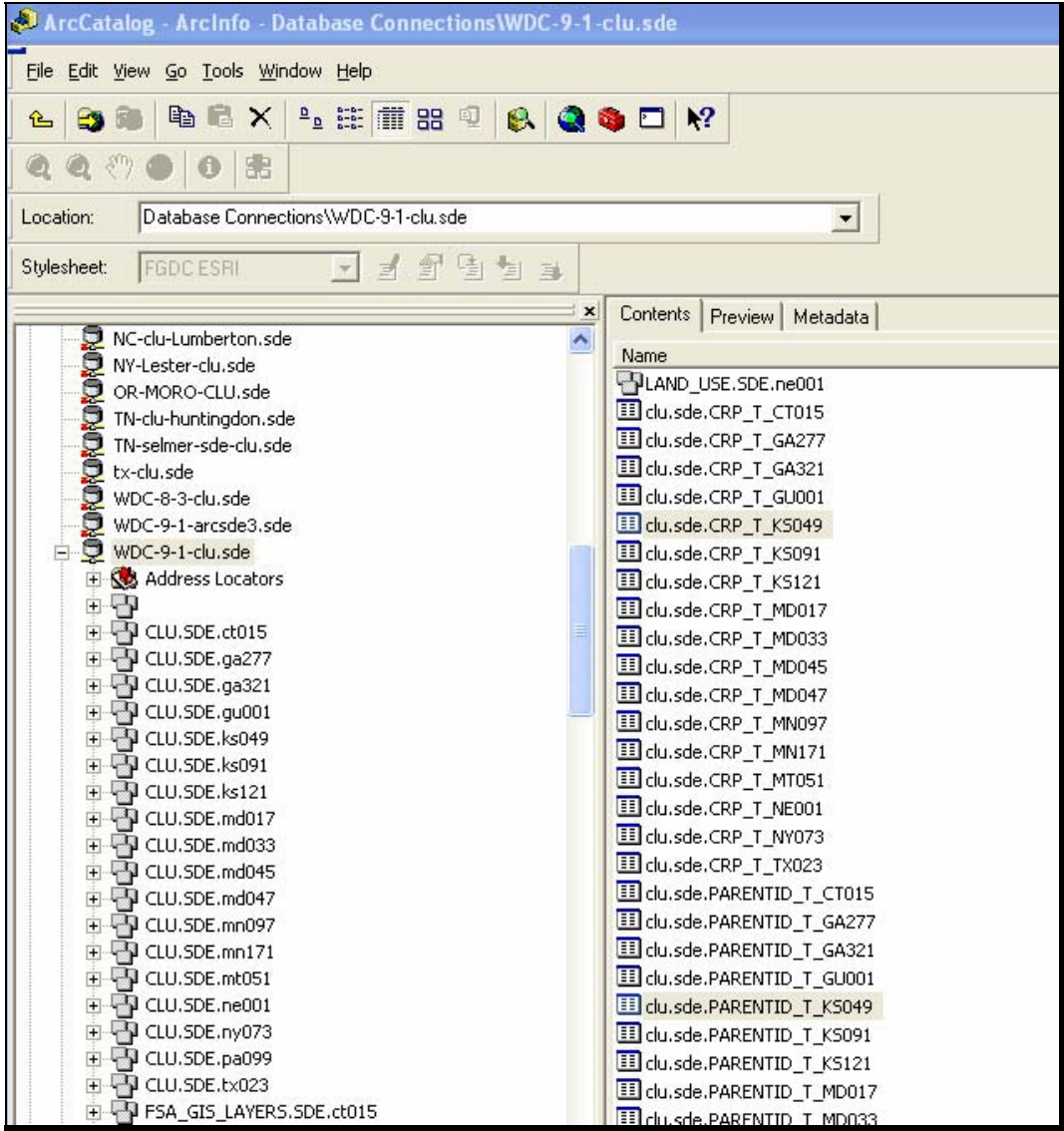
C Performing the Geodatabase Transfer

Perform the geodatabase transfer according to the following.

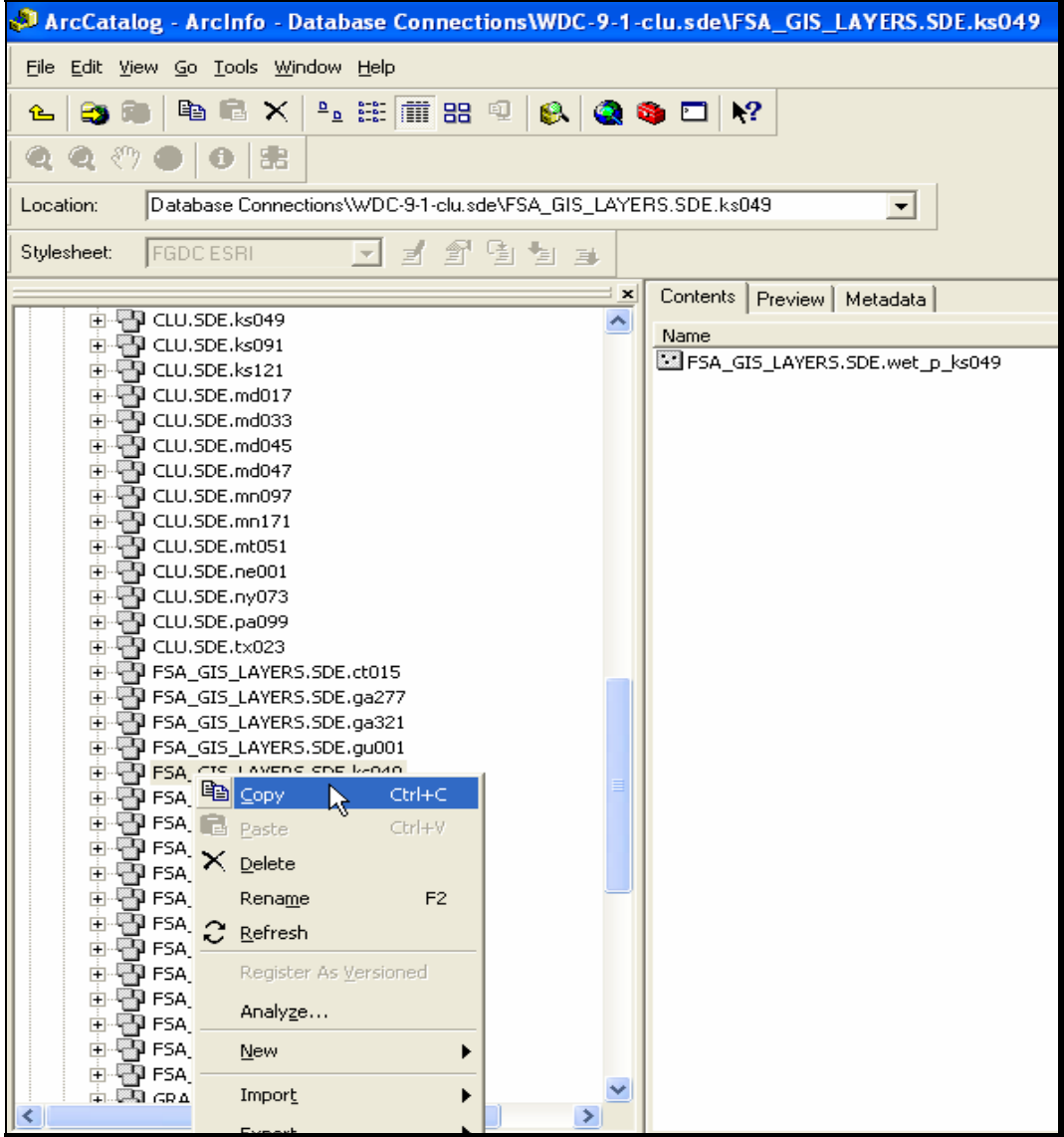| Step	Action
1	From the State Office workstation, connect to the SDE database of both the transferring County Office CLU database and the receiving County Office CLU database.
2	At the transferring County Office, right click on the entire feature dataset and CLICK "**Copy**". **Note:** The feature dataset will contain a CLU history feature class, CLU feature class, CLU topology layer, an annotation relationship class, and an annotation feature class if the transferring County Office had previously created an annotation layer. All of these will be copied by copying the feature dataset.
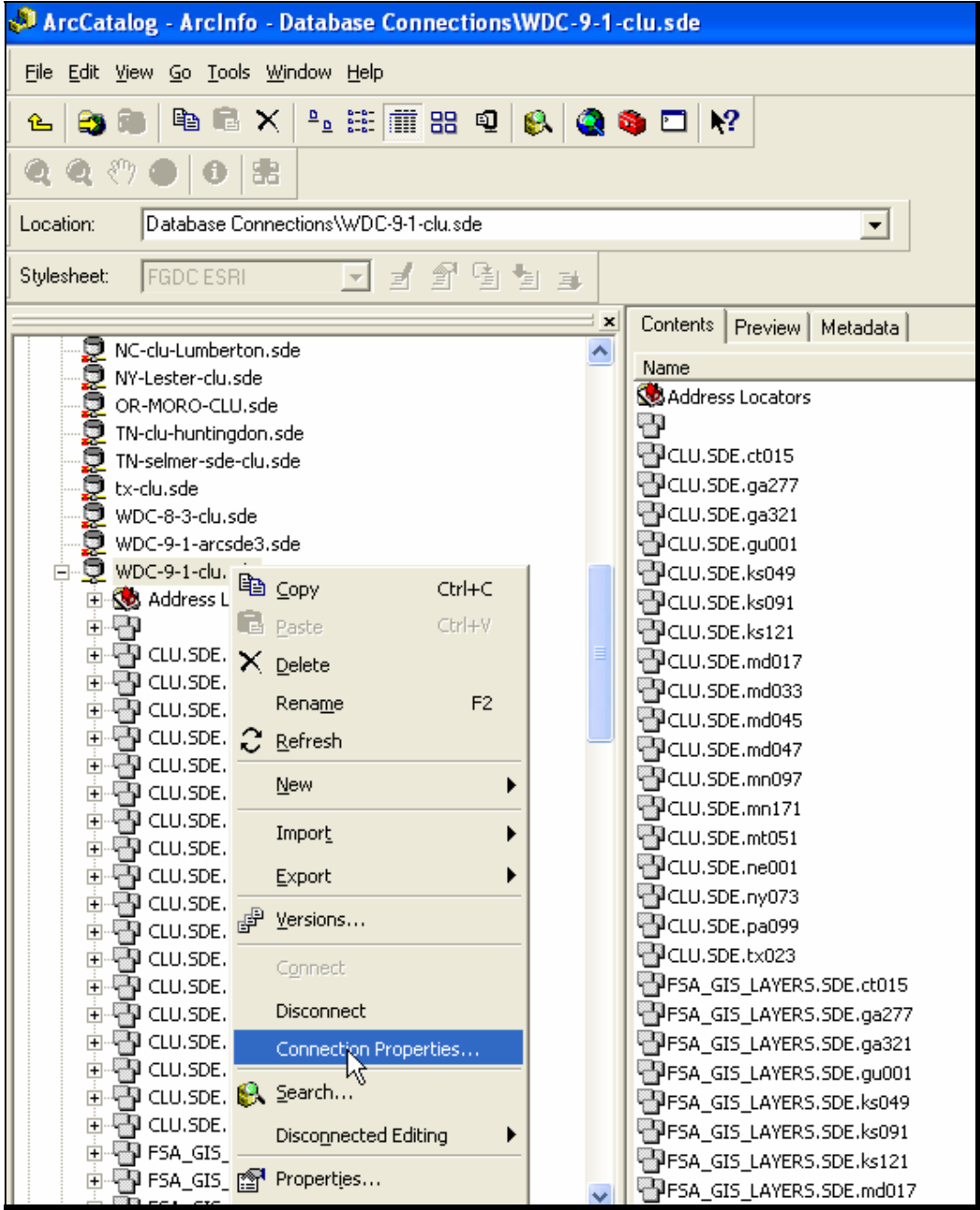
2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
3	In the connection at the receiving County Office, right click and CLICK "**Paste**". The feature dataset will be displayed.
4	Return to the connection for the transferring County Office, locate the ParentID and CRP tables, and **repeat** the copy/paste functions in steps 2 and 3. **Note:** If the receiving or transferring County Office is a Land Use or Bin Tool site, repeat the copy/paste functions in steps 2 and 3 for the Land_Use and Grain_Storage_Bin datasets.
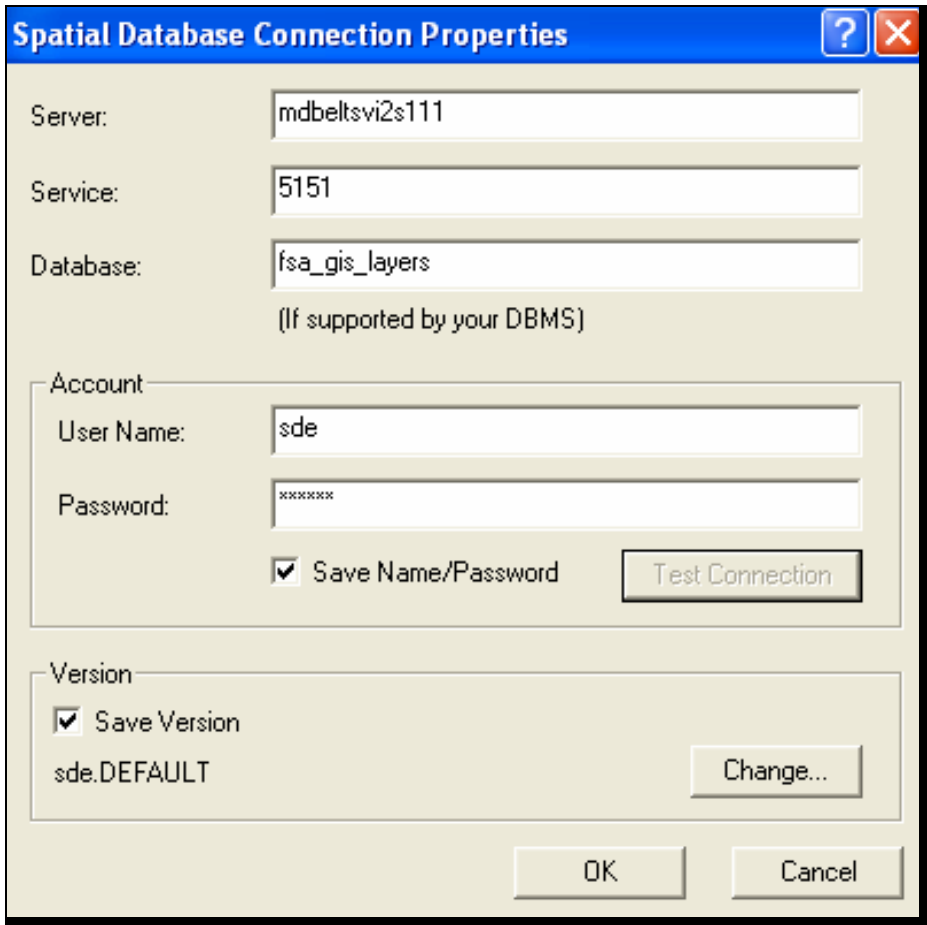
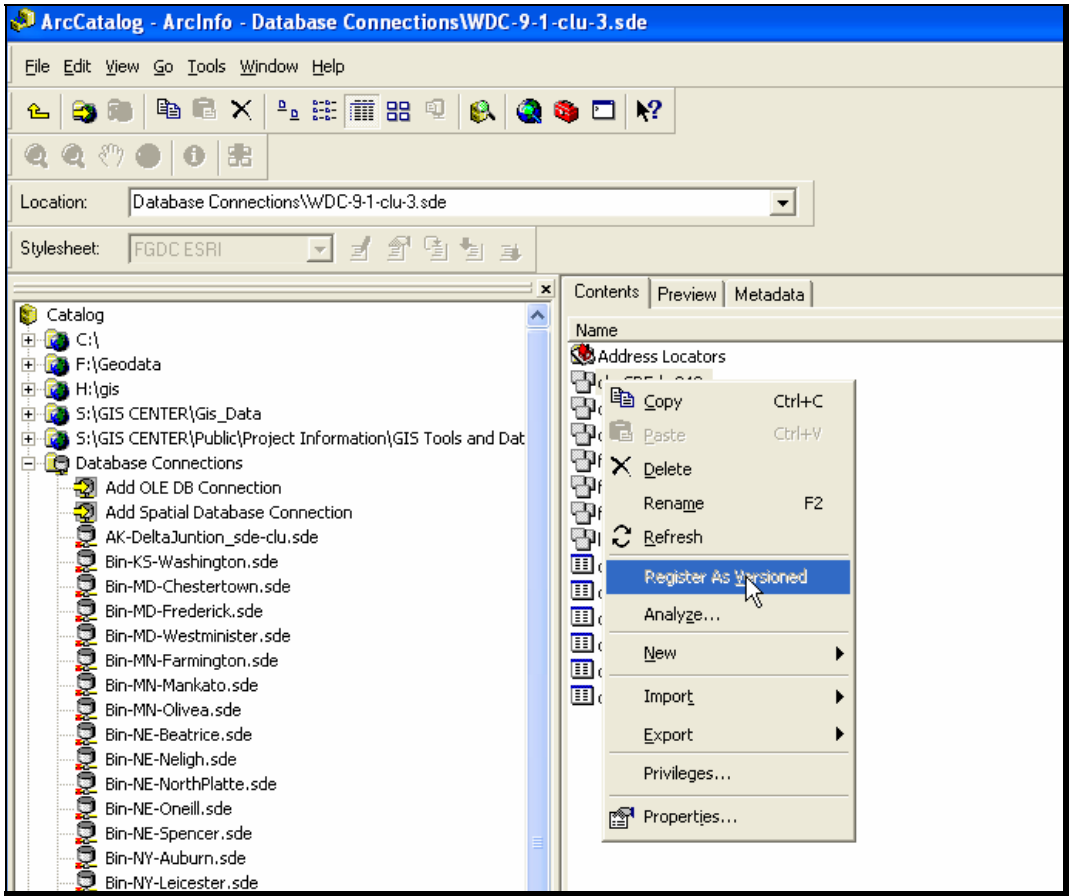**2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)**

C   Performing the Geodatabase Transfer (Continued)

Step	Action
5	Open the connection properties for the transferring County Office's connection in ArcCatalog by right clicking and CLICK "**Connection Properties**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
6	On the Spatial Database Connection Properties dialog box, change Database from "CLU" to "fsa_gis_layers". **Important:** Do **not** skip the underscores in the database name. CLICK "**Test Connection**". If "Test Connection" becomes grayed-out, CLICK "**OK**". If the "Test Connection" does **not** "gray-out", a popup window will be displayed, informing the user of the problem. Changing Database from CLU to FSA_GIS_Layers means that users: • can work within FSA_GIS_Layers dataset • cannot manipulate or work with CLU database. **Note:** Repeat steps 5 and 6 for the database connection to the receiving County Office.

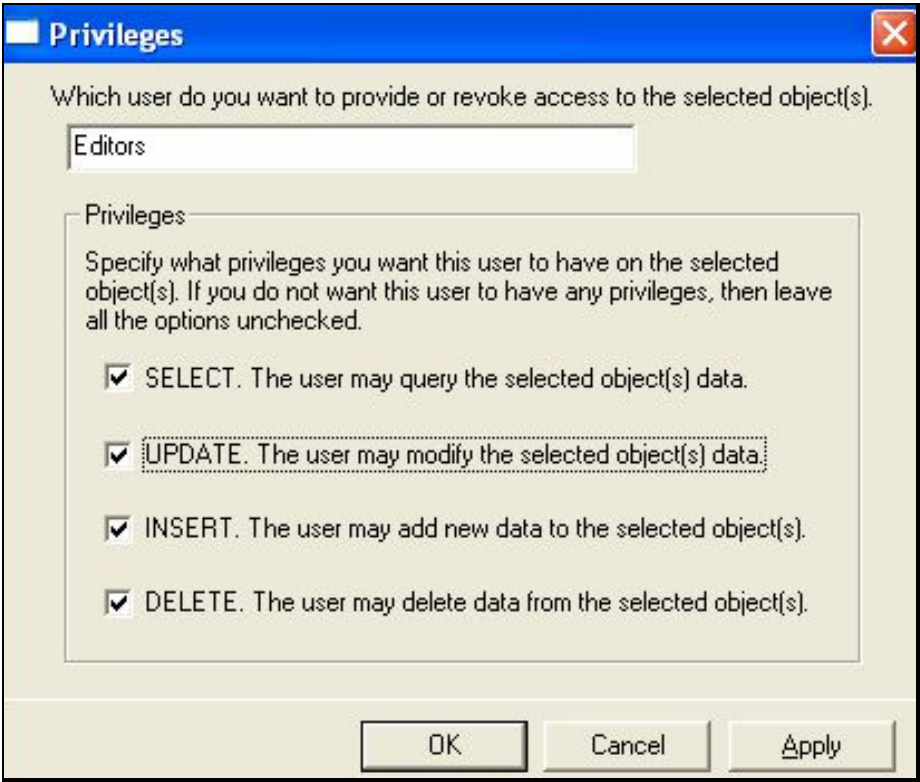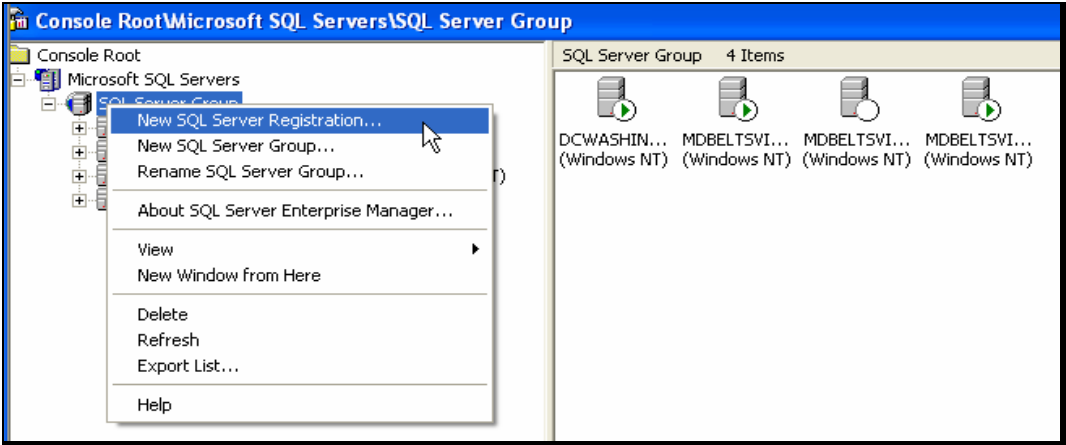**2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)**

C   Performing the Geodatabase Transfer (Continued)

Step	Action
7	Copy FSA_GIS_Layers feature dataset from the transferring County Office to the receiving County Office. Right click on FSA_GIS_Layers feature dataset at the transferring County Office and CLICK "**Copy**".
8	At the receiving County Office, CLICK "**Paste**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

   C   Performing the Geodatabase Transfer (Continued)

Step	Action
9	Register CLU dataset, FSA_GIS_Layers dataset, and CRP_T_XXXXX tables as versioned databases by right clicking on **each** of these items and CLICK "**Register As Versioned**".
	Note: Do **not** register the ParentID table that was copied over to the receiving County Office.

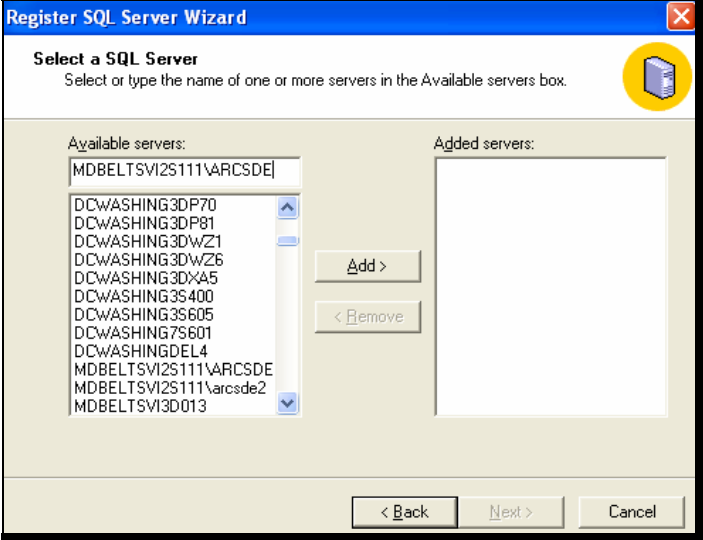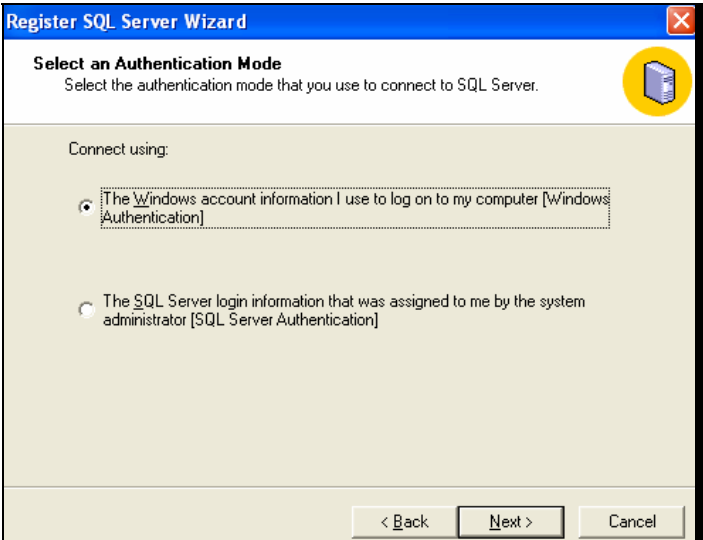**2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)**

   C   Performing the Geodatabase Transfer (Continued)

Step	Action
10	At the receiving County Offices CLU database connection, assign privileges for readers and editors. Set privileges for readers to the copied datasets by right clicking on CLU and CLICK "**Privileges**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
10 (Cntd)	The Privileges dialog box will be displayed with the question, "Which user do you want to provide or revoke access to the selected object(s)". Users shall do the following: • ENTER "**Readers**" • CLICK (✓) "**SELECT. The user may query the selected object(s) data.**" to set the readers permission • CLICK "**Apply**".

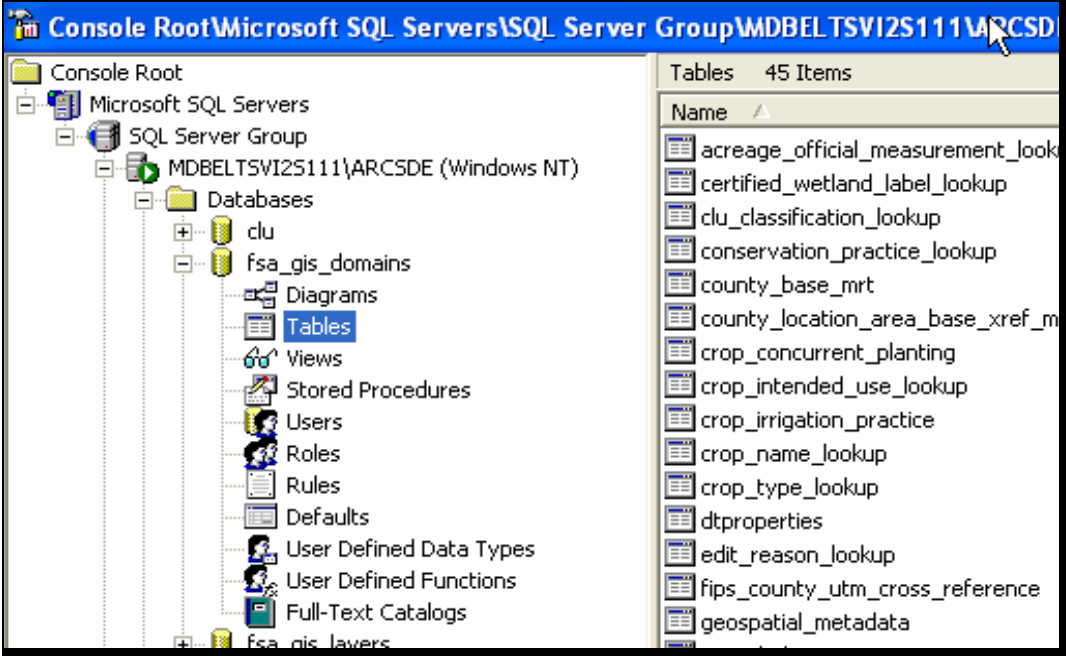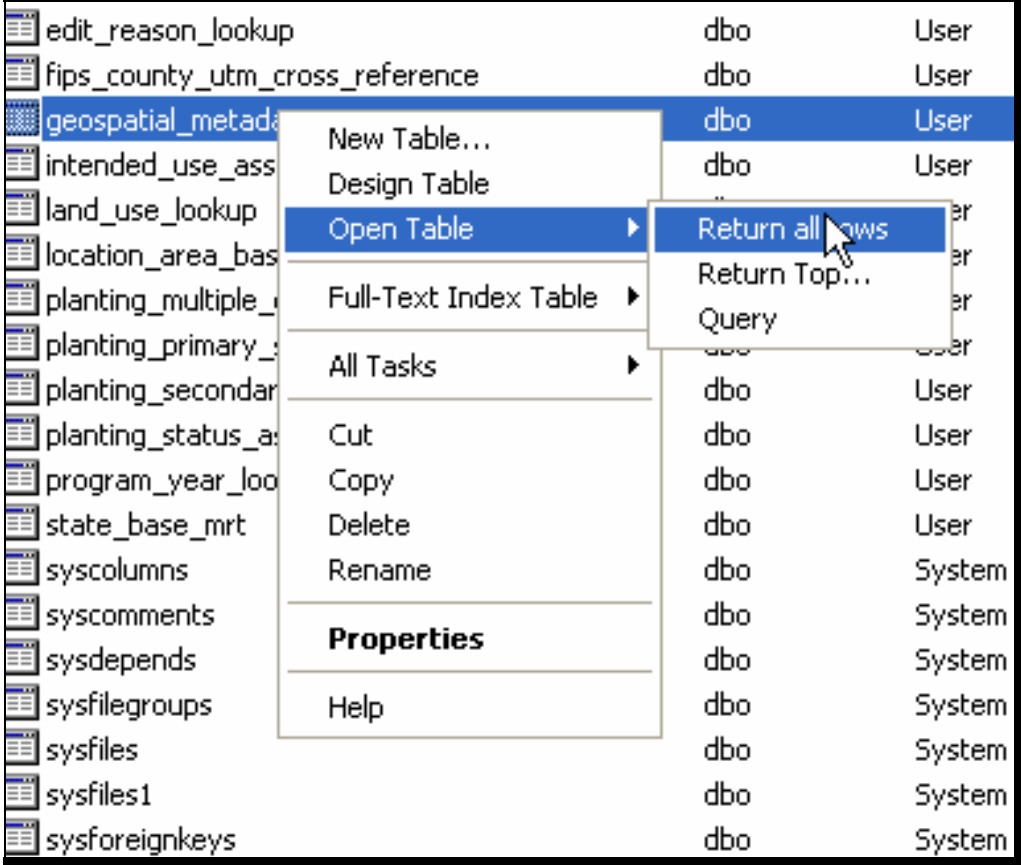**2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)**

    C   Performing the Geodatabase Transfer (Continued)

Step	Action
11	**After** users click "Apply" to set reader privileges, continue setting privileges for editors by doing the following when the Privileges dialog box is re-displayed with the question, "Which user do you want to provide or revoke access to the selected object(s).": • ENTER "**Editors**". • CLICK (✓) "**UPDATE. The user may modify the selected object(s) data.**" • CLICK "**Apply**" • CLICK "**OK**". **Notes: After** users click "**UPDATE. The user may modify the selected object(s) data.**" and "**Apply**", the Privileges dialog box will be re-displayed showing privileges for select, insert, and delete. **Repeat** steps 10 and 11 for the CRP and ParentID tables. Change the connection properties to FSA_GIS_Layers database and perform the same privilege assignment tasks on the FSA_GIS_Layers feature dataset.

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
12	Do the following to create a connection to the ArcSDE database through Enterprise Manager. From the desktop, CLICK: • "**Start**" • "**All Programs**" • "**Microsoft SQL Server**" • "**Enterprise Manager**". RIGHT-CLICK "**SQL Server Group**" and CLICK "**New SQL Server Registration**". **Note:** Users **must** have been added as a System Administrator to SQL database. The Welcome to the Register SQL Server Wizard Screen will be displayed, CLICK "**Next**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
12 (Cntd)	The Register SQL Server Wizard dialog box will be displayed. In the Available servers box, type the name of the receiving County Office to which the server user wants to connect, enter "**\ARCSDE**" to the end of the server name, and CLICK "**Add**". The Register SQL Server Wizard dialog box will be re-displayed with the server the user typed in displayed in the Added servers box. CLICK "**Next**". The Register SQL Server Wizard dialog box will be re-displayed, informing the user to select an authentication mode, ensure that "The Windows account information I use to long on to my computer [Windows Authentication]" option is selected and CLICK "**Next**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
12 (Cntd)	The Register SQL Server Wizard dialog box will be re-displayed, informing the user to select SQL server group. CLICK "**Add the SQL Server(s) to an existing SQL Server Group**" and CLICK "**Next**".

The Register SQL Server Wizard dialog box will be re-displayed, informing the user that the system is completing the register SQL server wizard, CLICK "**Finish**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
13	Once the SQL server connection has been established, in Enterprise Manager, navigate, on the left side of the window, to **databases\fsa_gis_domains\tables**. **Note:** Navigating within Enterprise Manager works the same as Windows Explorer. Use the "+" and "–" signs to expand and hide levels.

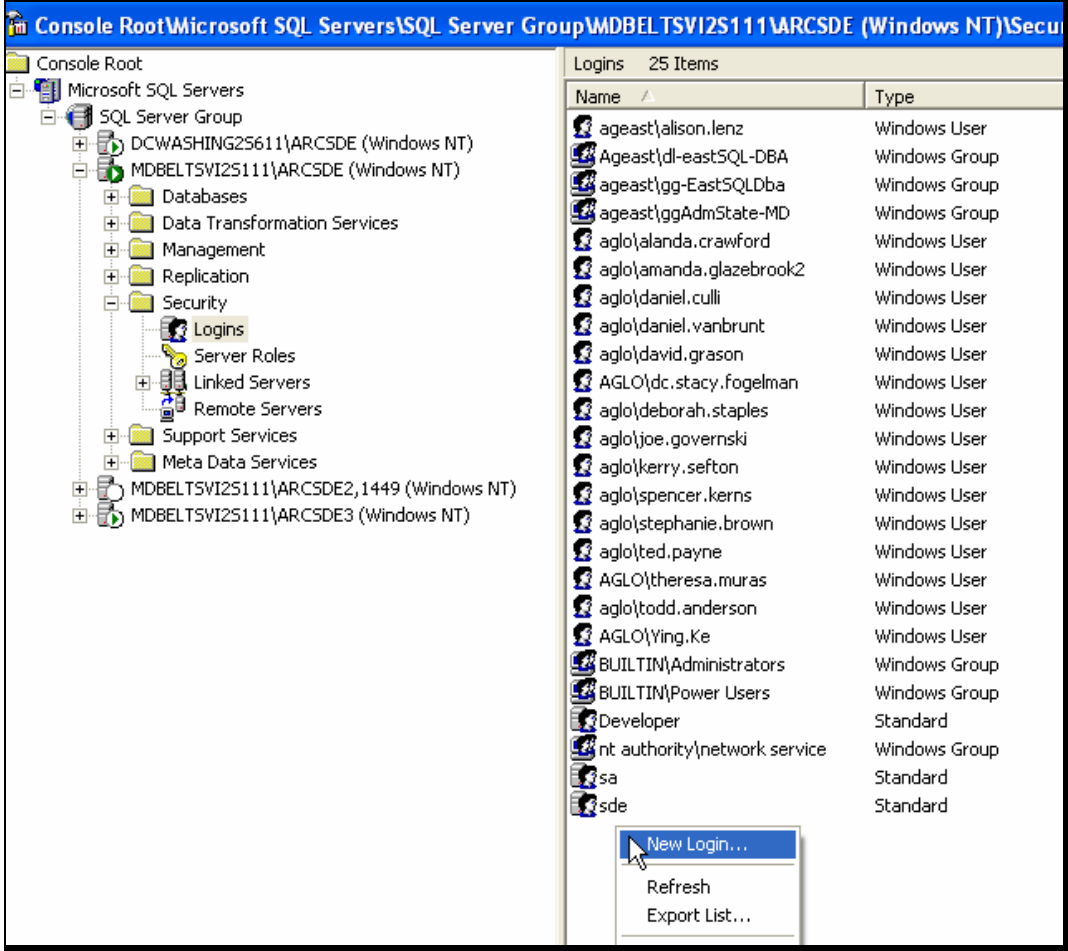**2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)**

C   Performing the Geodatabase Transfer (Continued)

Step	Action
13 (Cntd)	On the right side of the screen, a list of all available tables within the fsa_gis_domains will be displayed. To view and edit the table, RIGHT CLICK "**geospatial_metadata**", CLICK "**Open Table**", and CLICK "**Return all rows**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

   C   Performing the Geodatabase Transfer (Continued)

Step	Action
13 (Cntd)	The geospatial metadata table will be displayed. To add new rows, right click on the grey box on the left side of the table and CLICK "**New**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C   Performing the Geodatabase Transfer (Continued)

Step	Action
13 (Cntd)	The following columns **must** be manually populated with 4 rows for each, formatted **exactly** as listed.

Column Title	Format
geospatial_metadata	The 4 new records shall be numbered sequentially starting 1 number after the previous record. **Example:** 5,6,7,8 or 25, 26, 27, 28.
state_fsa_code	State's 2-digit FIPS code.
county_fsa_code	County Office's 3-digit FIPS code.
database_server_name	Name of the server where the data now resides (the receiving County Office).
database_name	• 3 rows for CLU • 1 row for FSA_GIS_Layers
arcsde_dataset_name	State's 2-letter abbreviation with County Offices 3-digit FIPS code. **Example:** xx000
table_physical_name	• 1 row – clu_a_xx000 • 1 row – clu_history_xx000 • 1 row – crp_t_xx000 • 1 row – wet_p_xx000
legacy_data_directory_path	Can be left blank.
geospatial_theme_name	• 2 rows - CLU • 1 row – CRP • 1 row – WET
last_change_office	ENTER "**<NULL>**" (type the word NULL with the arrows).
creation_date	m/dd/yyyy 10:07:08 AM (use actual creation date and time).
last_change_date	
deletion_date	ENTER "**<NULL>**" (type the word NULL with the arrows).
last_change_user_name	first.last (dot in between).

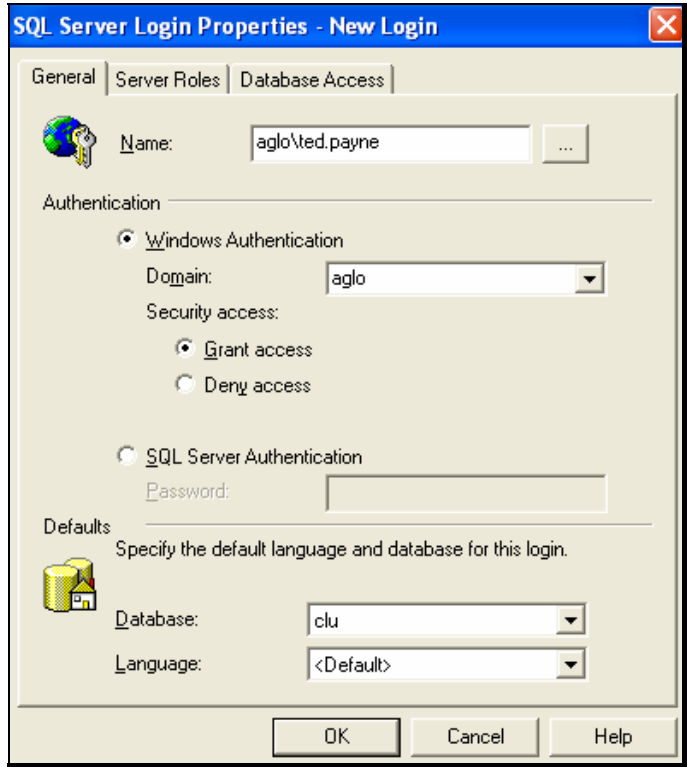**2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)**

C   Performing the Geodatabase Transfer (Continued)

Step	Action
14	Using Enterprise Manager, establish any new users coming from the transferring County Office on the new server for access to read or edit CLU database, as follows. From the desktop, CLICK: • "**Start**" • "**All Programs**" • "**Microsoft SQL Server**" • "**Enterprise Manager**" • "**Microsoft SQL Servers** • "**SQL Server Group** • "**name of users SQL Server\ArcSDE**" • "**Security**". RIGHT-CLICK "**Logins**" and CLICK "**New Login**".

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

   C   Performing the Geodatabase Transfer (Continued)

Step	Action
14 (Cntd)	The SQL Server Login Properties - New Login dialog box will be displayed. Complete the SQL Server Login Properties - New Login dialog box as follows: • CLICK "**General**" tab and do the following: • in the Name box, specify the name for the new login in the format, domain\firstname.lastname • ensure that Windows Authentication radio button is selected • in Domain box, select the domain to use to validate a login's network security attributes from the drop-down menu **Note:** Receiving County Office user **must** already have a domain account under either ageast, agwest, or agcentral. • in Database box, select "**clu**" from the drop-down menu **Example:** In this example, user created a new account for **Ted Payne** in a domain called **aglo**.

2 Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

C Performing the Geodatabase Transfer (Continued)

Step	Action
14 (Cntd)	• CLICK "**Database Access**" tab and do the following: • in the Permit column for each required database, click a checkmark • in the Permit column, in Database Role box, choose either "E" for editors or "R" for Readers, according the following table

Database	Uses the Land Use, Maintenance Tools, and Grain Storage Bin	Land Use Tool Only (Acreage Report Editor)	Maintenance Tool Only (CLU Editor)	Maintenance Tool Lite (Read Only)	Grain Storage Bin Application only
clu	E	R	E	R	E
fsa_gis_domains	E	E	E	R	E
fsa_gis_layers	E	R	E	R	E
land_use	E	E			
grain_storage_bin	E				E
sde	E	E	E	E	E

Notes: All individuals who intend to take acreage reports need to be given permissions at the "Land Use Tool Only" level. Most County Offices will not have anyone in the "Maintenance Tool Only" category. Individuals who will **not** be using either the Land Use or Maintenance Tool do **not** require an account in SQL. If there are any FSA Service Center employees **not** allowed to take acreage reports, CED shall determine whether the employee should not access the Land Use database.

At this time, neither NRCS nor RD employees need access to either database.

A CLU shapefile will continue to be accessible to all Service Center employees on the local server.

CED is responsible for sending the names in each group to whomever in the State Office that has been tasked with establishing the authenticated SQL accounts.

2   Procedure for Transferring ArcSDE CLU Geospatial Data (Continued)

   C Performing the Geodatabase Transfer (Continued)

Step	Action
14 (Cntd)	• in the User column, remove the period separating the first and last names so that "firstname.lastname" becomes "firstnamelastname". **Notes:** If there is a "Domain_Name\" or other special characters in front of the user name, they **must** be removed. Complete for each database that was checked on the "Database Access" tab, in the Permit column.

3   State and County Actions

   A State Actions

   State Office GIS personnel shall perform paragraph 2 activities to move CLU databases from the transferring County Office to the receiving County Office with coordination between the State Office and receiving County Office

   B County Actions

   County Offices shall:

   • test the application connections by opening **all** projects in ArcGIS, the Maintenance Tool, the Land Use application, or the Bin Tool based on the users' responsibilities as assigned by CED

   • report test findings to the State Office GIS personnel.