

Land Health Reporting Geodatabase Instructions

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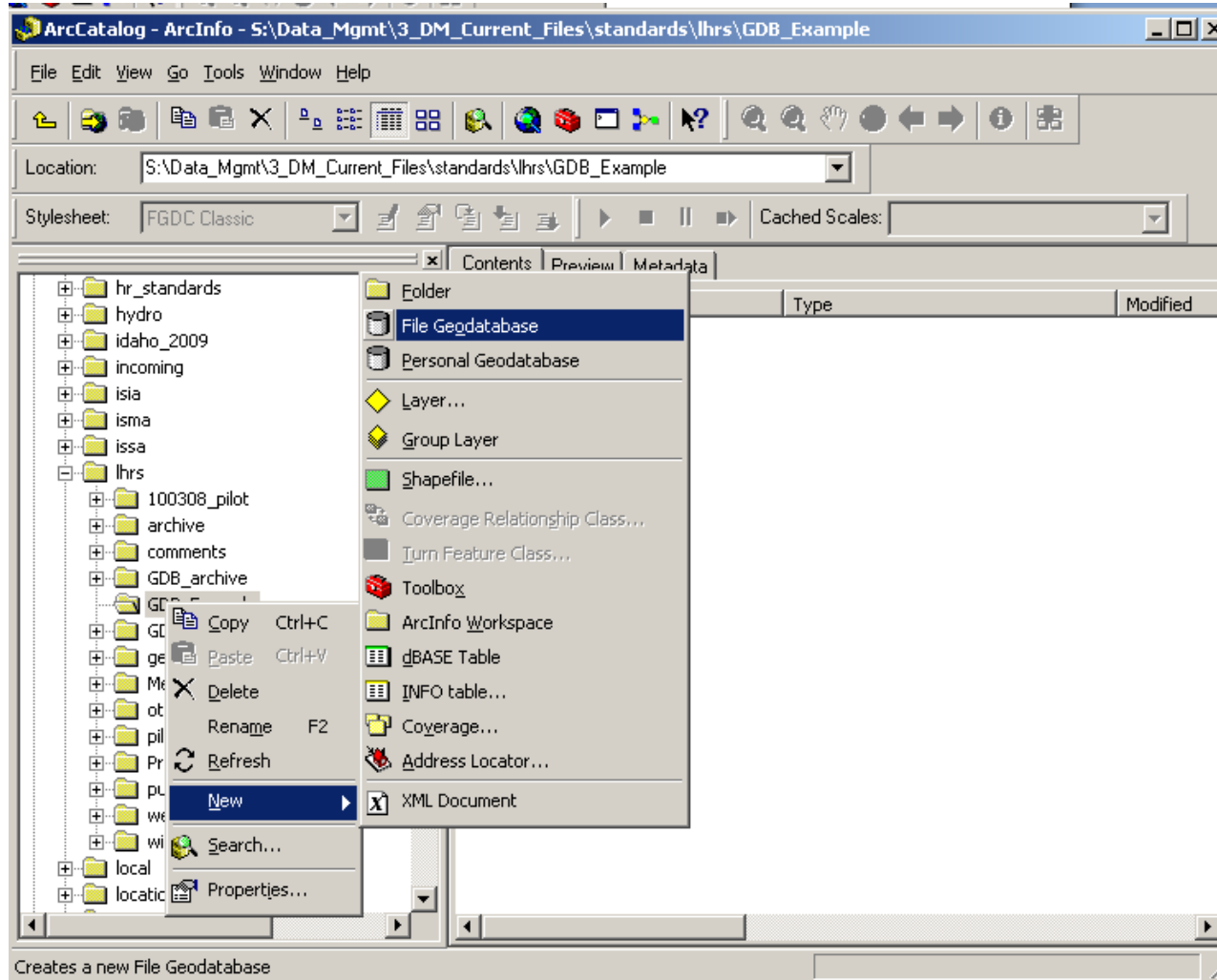
ENSURE THAT YOU HAVE THE CORRECT GEODATABASE

An administrative state has either one set of 3 to 8 land health standards, or an administrative state has two or more Resource Advisory Council (RAC) areas, each with a set of 3 to 5 land health standards. Eighteen geodatabases are being distributed, one for each Administrative State or Resource Advisory Council (RAC). The following list outlines the 18 different geodatabases. Please ensure that you have the correct one for your administrative state or RAC.

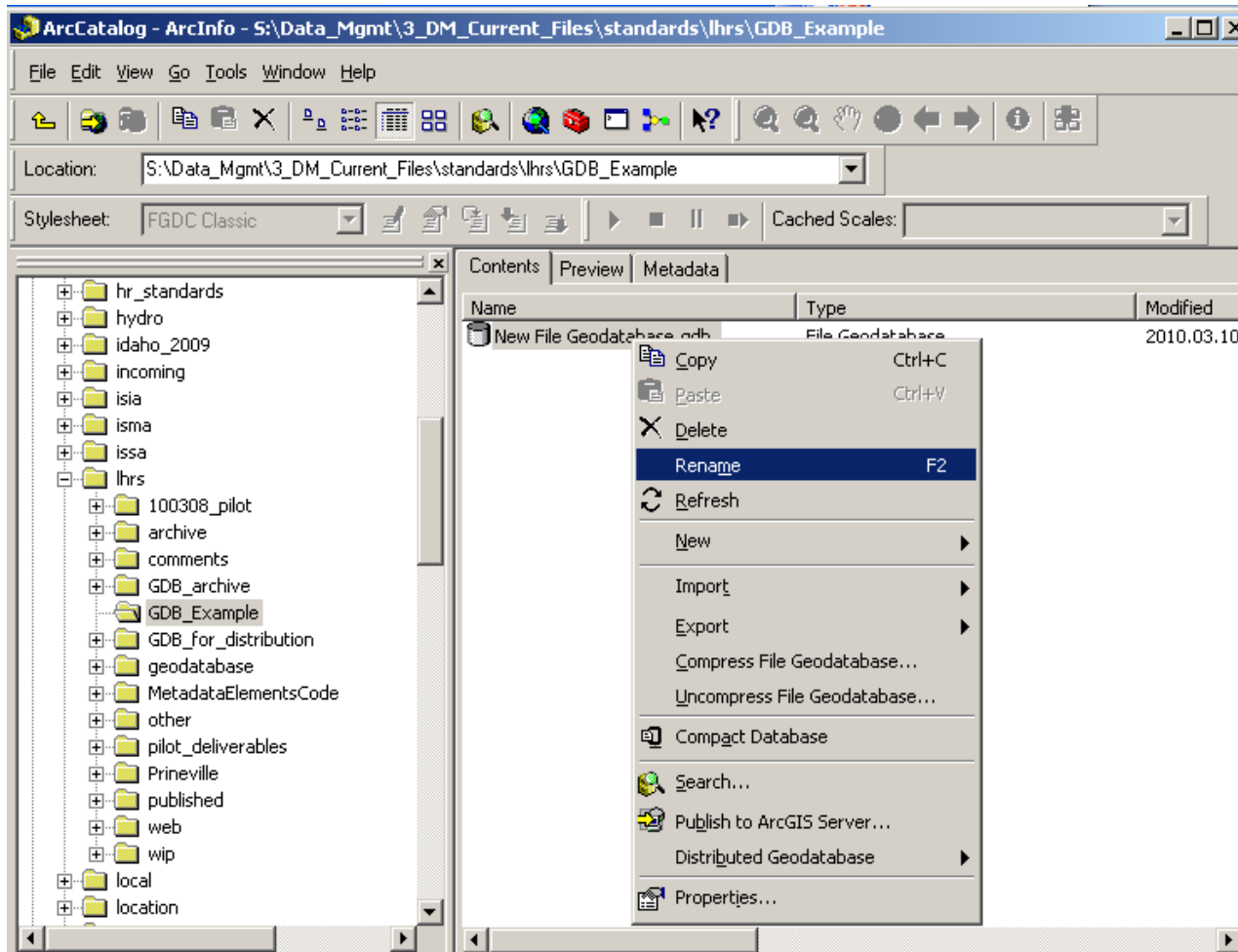
	Geodatabase name	Administrative State or RAC
1	AK_LHRS_V4_100308.XML	Alaska
2	AZ_LHRS_V4_100308.XML	Arizona
3	CA-CN_LHRS_V4_100308.XML	Central California
4	CA-NE_LHRS_V4_100308.XML	Northeastern California and Northwestern Nevada
5	CA-NW_LHRS_V4_100308.XML	Northwestern California
6	CO_LHRS_V4_100308.XML	Colorado
7	ID_LHRS_V4_100308.XML	Idaho
8	MT-BUTTE_LHRS_V4_100308.XML	Montana - Butte (apply to the Butte, Dillon, and Missoula Field Offices)
9	MT-DAKOTAS_LHRS_V4_100308.XML	Montana – Dakotas (apply to the North Dakota and South Dakota Field Offices)
10	MT-LEWISTOWN_LHRS_V4_100308.XML	Montana – Lewistown (apply to the Lewistown and Malta Field Offices)
11	MT-MILESCITY_LHRS_V4_100308.XML	Montana – Miles City (apply to the Miles City and Billings Field Offices)
12	NM_LHRS_V4_100308.XML	New Mexico
13	NV-MOJAVE_LHRS_V4_100308.XML	Nevada – Mojave-Southern Great Basin
14	NV-NEBASIN_LHRS_V4_100308.XML	Nevada – Northeastern Great Basin
15	NV-SIERRA_LHRS_V4_100308.XML	Nevada – Sierra Front-Northwestern Great Basin
16	OR_LHRS_V4_100308.XML	Oregon
17	UT_LHRS_V4_100308.XML	Utah
18	WY_LHRS_V4_100308.XML	Wyoming

CREATING A GEODATABASE FROM AN XML WORKSPACE FILE

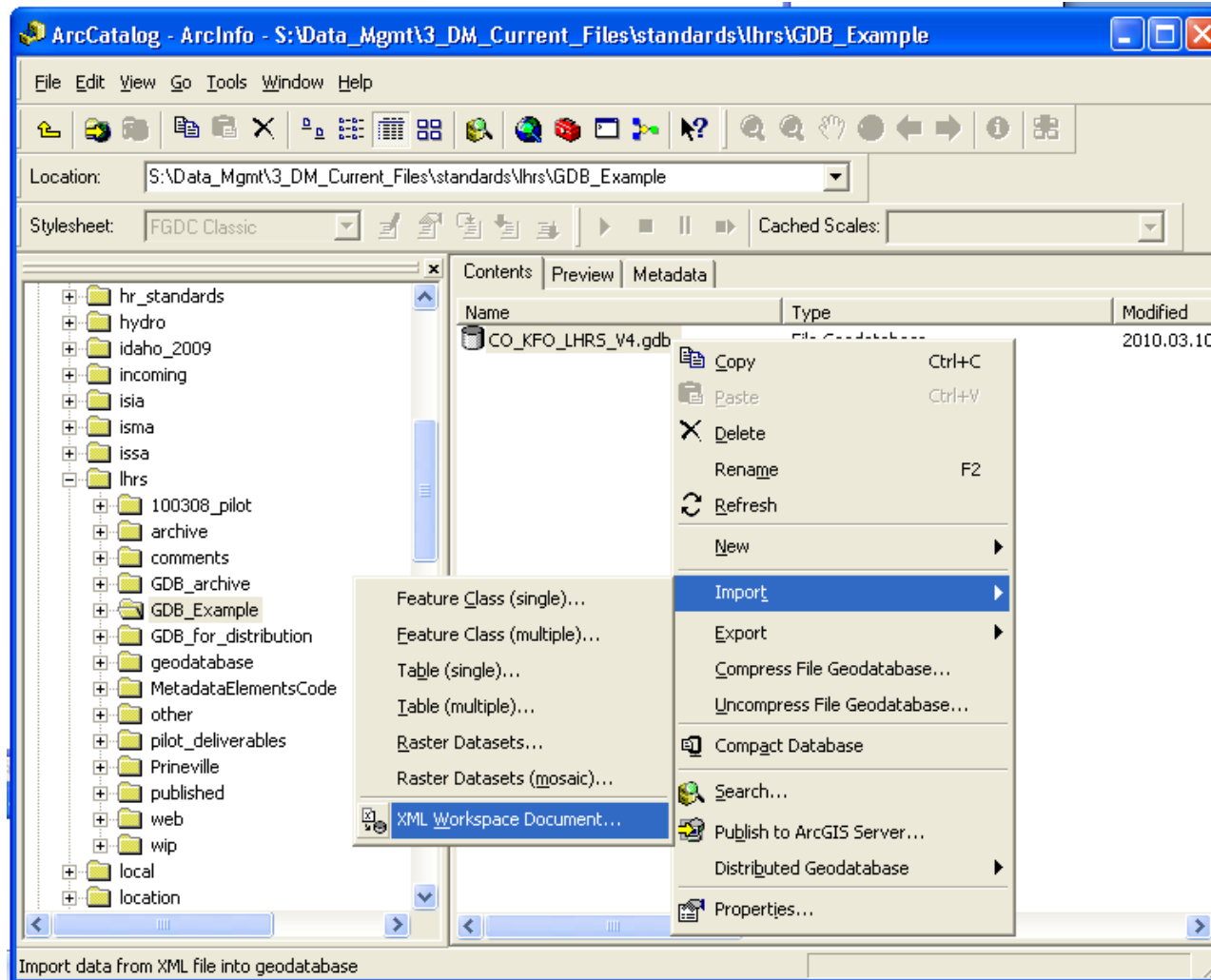
- 1) In ArcCatalog, choose the directory where you want to create your new Geodatabase (GDB). Right-click on that directory and choose **New > File Geodatabase**:



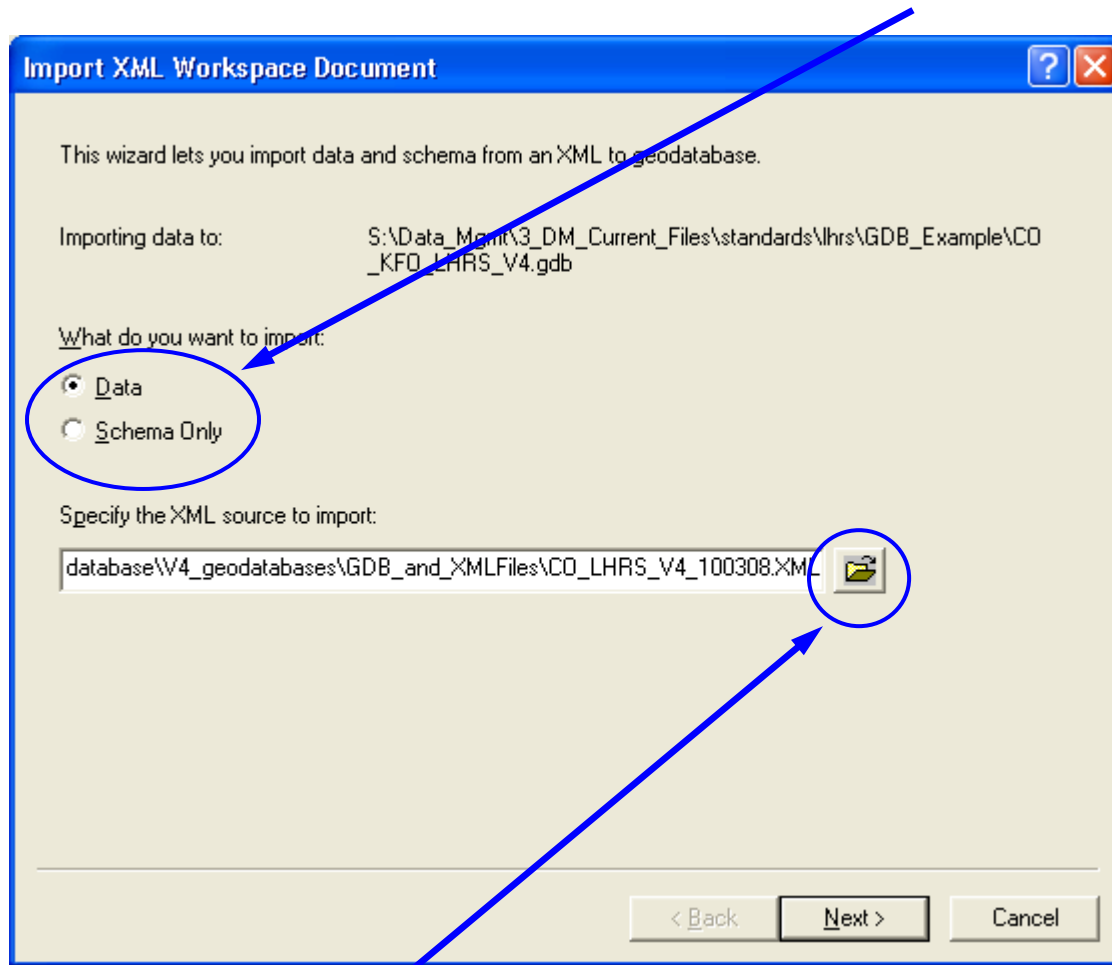
- 2) Right-click on the New File Geodatabase and re-name to whatever is standard for your office. Include the acronym LHRS in the name of your Geodatabase. In this example we renamed it to CO_KFO_LHRS_V4.gdb



3) Right-click on the newly re-named Geodatabase. Choose *Import > XML Workspace Document* :

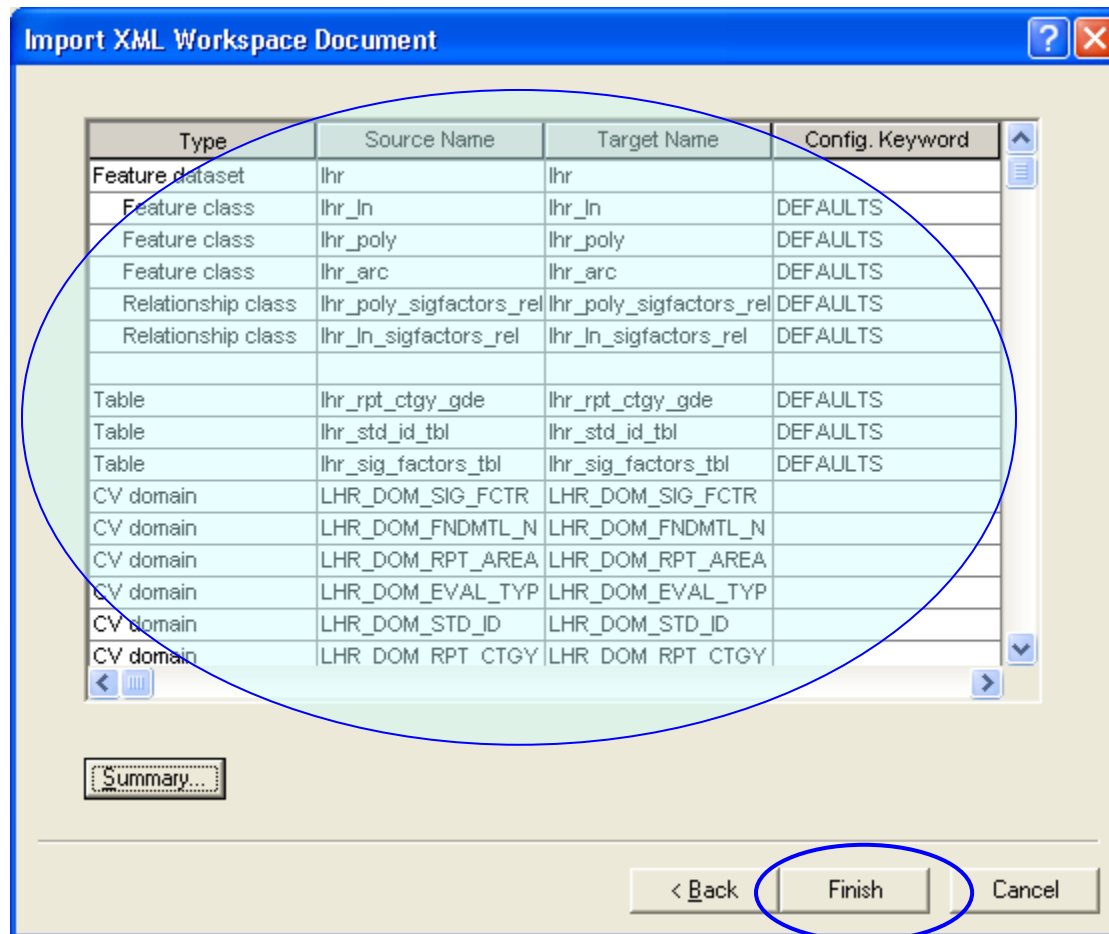


- 4) In the “Import XML Workspace Document” dialog box, choose the radio button for “Data.” In general, a geodatabase from the data standards group will be empty. In the case of LHRS, you will need to choose the “Data” option because in addition to the “empty” GDB schema, you will be importing two pre-populated tables.

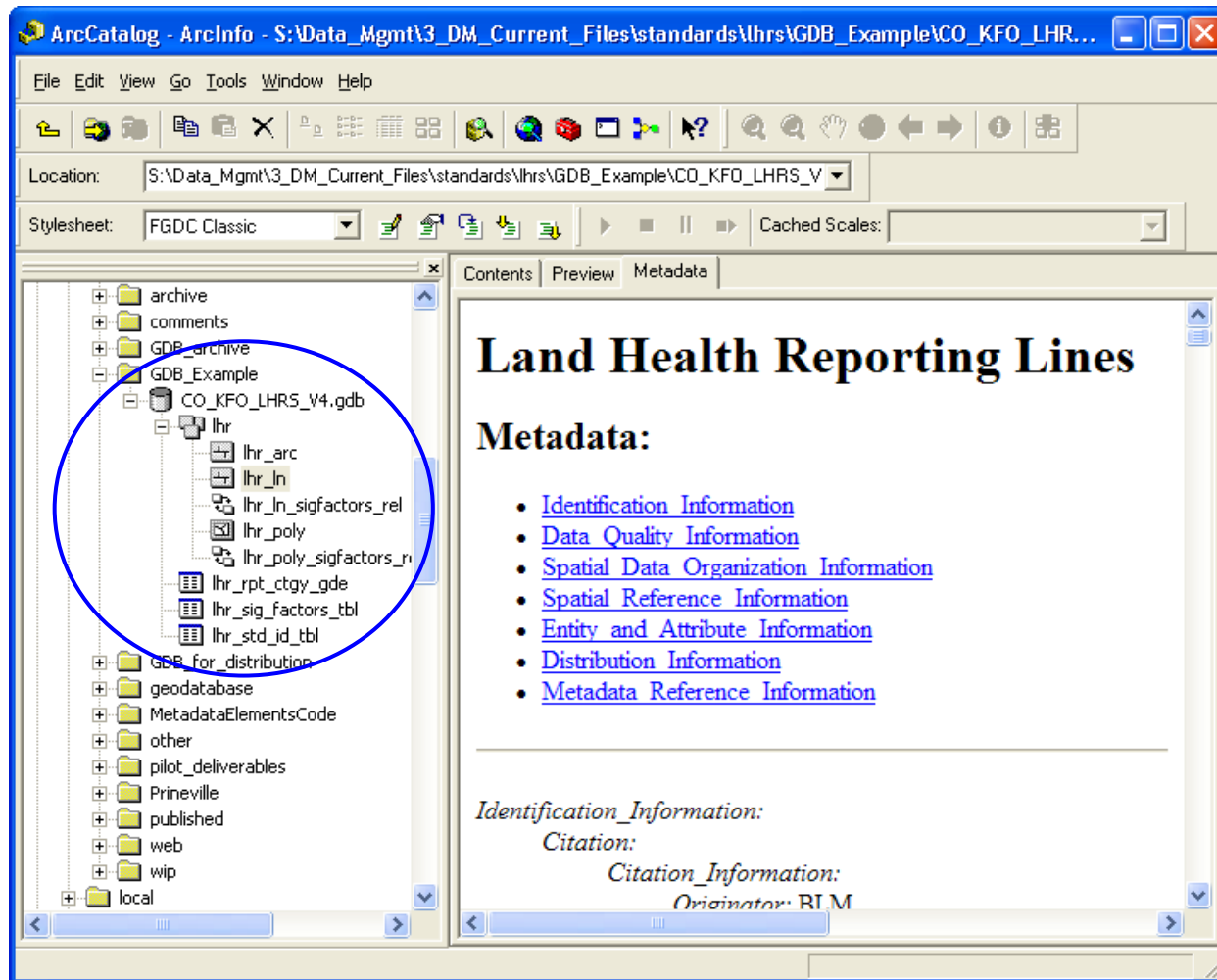


Click on the Browse button, and navigate to the directory where you saved the XML Workspace File. In this example, we will import the XML file for the administrative state of Colorado.

- 5) Check to make sure that all of the expected feature classes, domain tables, etc. are listed (if this is based on an Implementation Guideline, check the table of contents). Click **Finish**. An “XML Import Workspace” window will show the import progress.



- 6) Refresh the view in the Catalog tree, expand the GDB, and you will see the complete empty geodatabase, created from the XML workspace document:

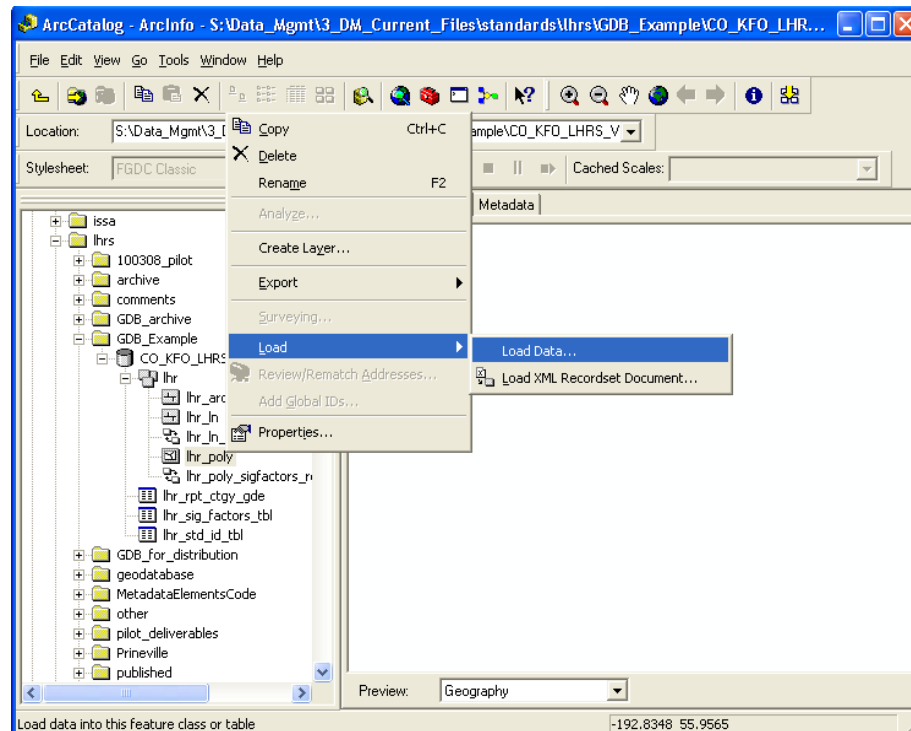


LOAD DATA INTO EMPTY GEODATABASE

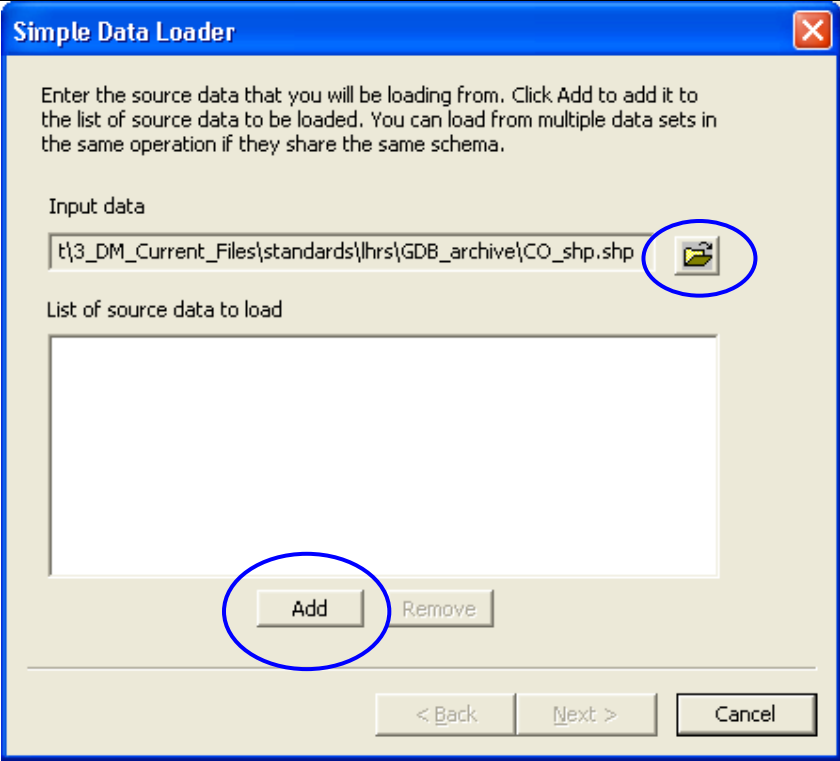
There are several methods that can be used to load data into the new geodatabase. These instructions provide information on two ArcGIS tools: the “simple data loader” from within ArcCatalog, and the “load objects” button from within an edit session of ArcMap.

Simple Data Loader from within ArcCatalog Instructions

1. Start ArcCatalog. Navigate to your geodatabase directory, right-click on the Feature Class that you wish to load your data into, and select **Load > Load Data**.




2. This opens the Simple Data Loader Dialog Box. Click **Next** to skip to the second screen. Browse to the directory where your data (Feature Class, Shapefile, or Coverage) is located. You may add multiple datasets provided that their schemas match. Click **Add**.

	
<p>3. The path to your source data will appear in the dialog box “List of source data to load.” You may load additional data sets if they share the same schema. Click Next</p>	<p>4. The existing geodatabase and target feature class will have been populated by the load data tool. Data should not be loaded into a sub-type unless otherwise specified in the implementation guideline. Click Next</p>

Simple Data Loader

Enter the source data that you will be loading from. Click Add to add it to the list of source data to be loaded. You can load from multiple data sets in the same operation if they share the same schema.

Input data




List of source data to load

S:\Data_Mgmt\3_DM_Current_Files\standards\hrs\GDB_archive\CO_shp

Simple Data Loader

Select the target geodatabase and feature class that you will be loading the source data into.

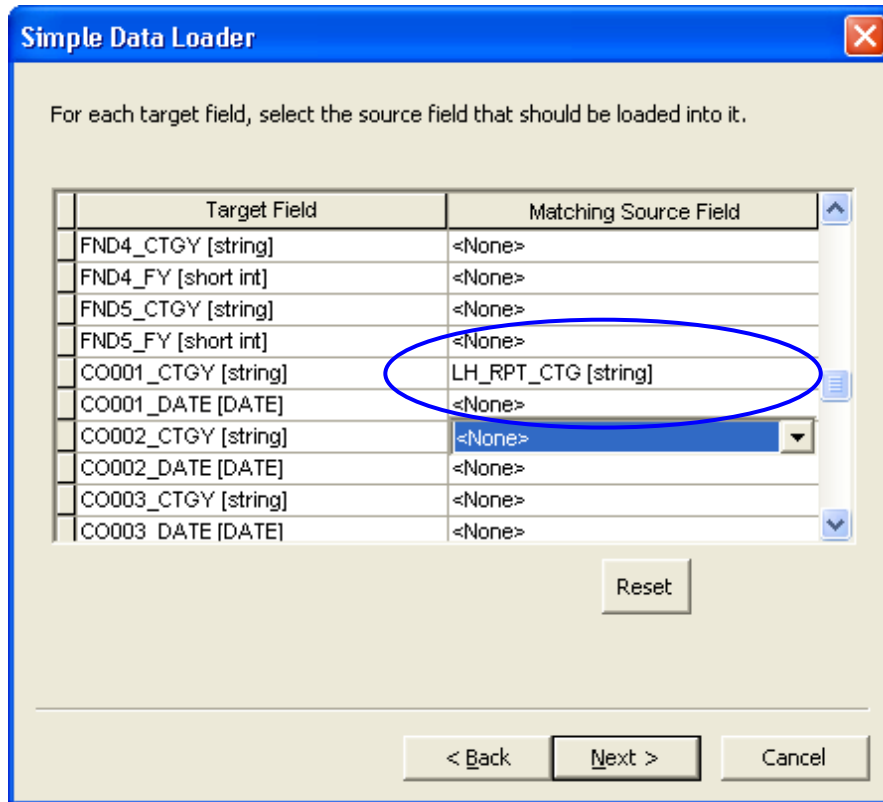
Choose an existing geodatabase:



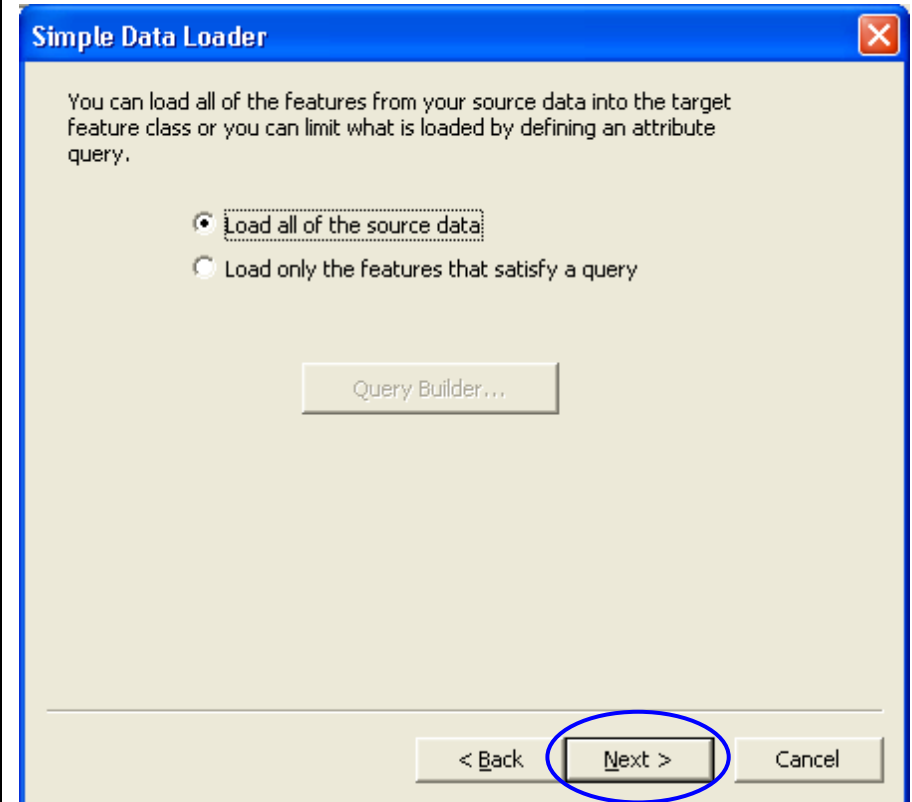
Select the target feature class:

I do not want to load all features into a subtype.
 I want to load all features into a subtype.
Select the target subtype.

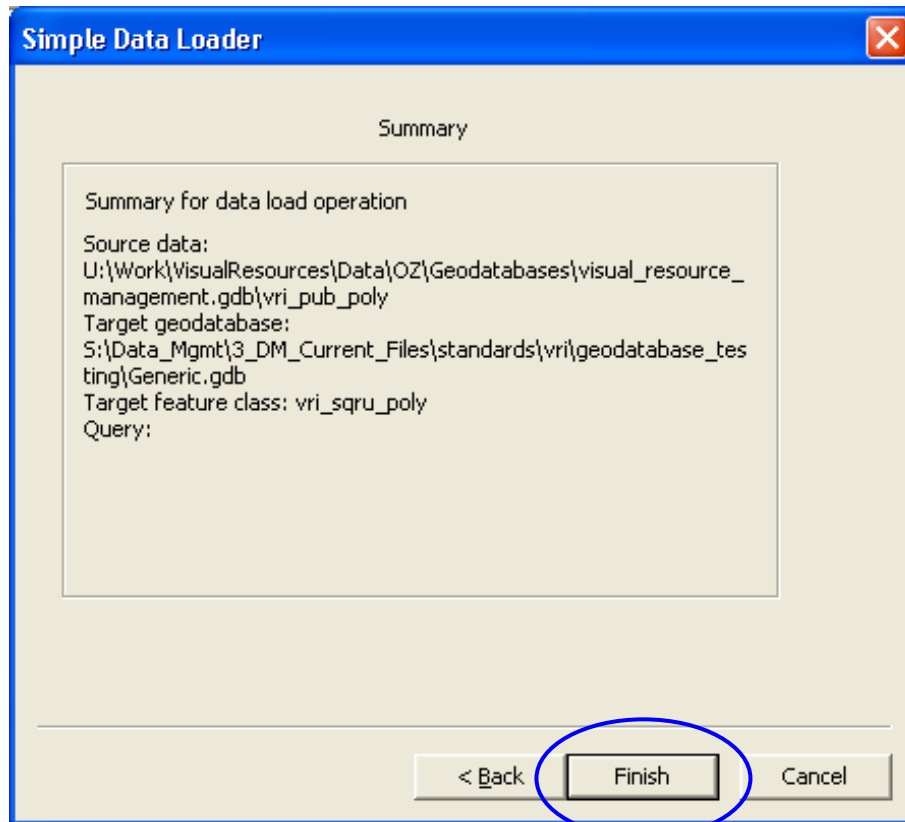
5. Select the “Matching Source Field” corresponding to the existing data being loaded for each “Target Field” in the new GDB. The example below shows one matching source field. Click **Next**.



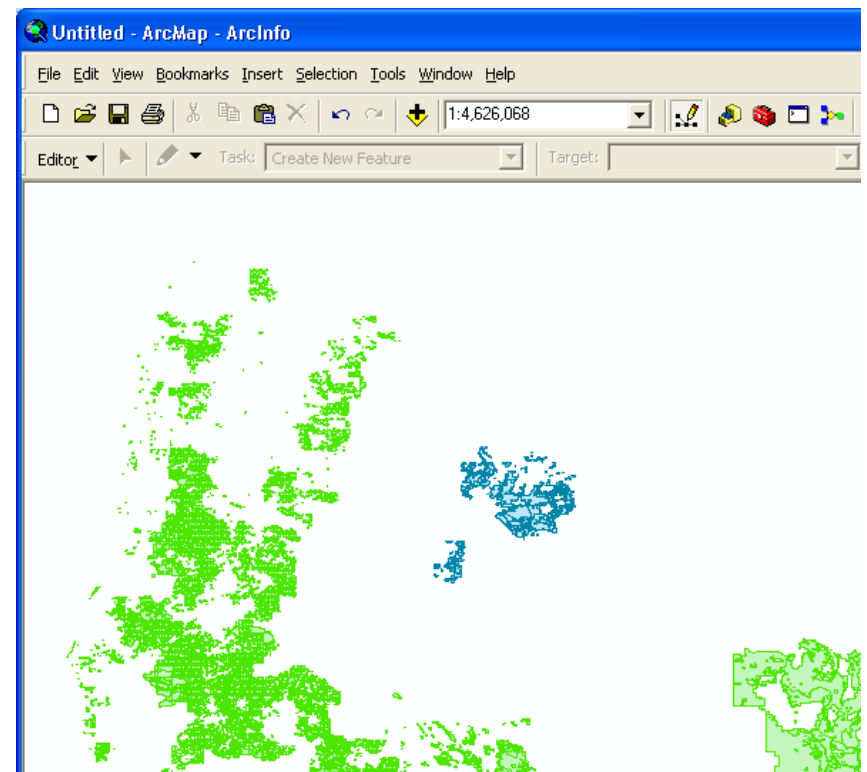
6. Select whether you will load all of the features from the source data, or only selected features based on a query. Build the query if necessary, click **Next**



7. Review the summary, click **Finish**



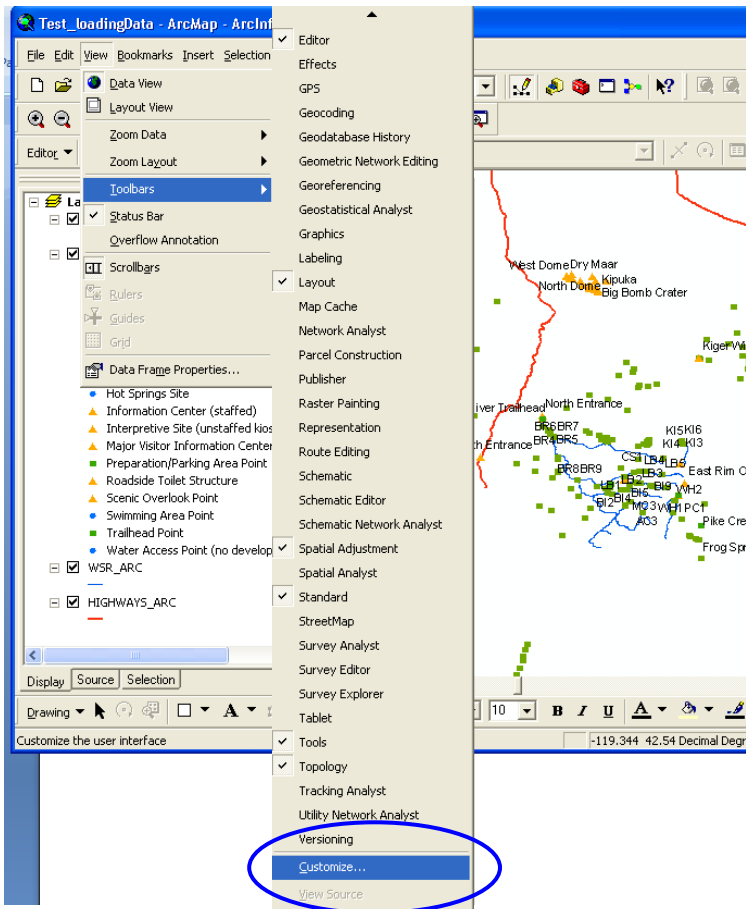
8. In this example, only the source features with a valid code loaded into the target feature class, as symbolized with blue. The remainder of the features, as symbolized with green, failed to load because of "NULL" values which are not allowed in the target feature class. There are several options that could be used to include these excluded features, including but not limited to: (1) Add excluded features to the target feature class through an ArcMap Edit session; (2) Import all features without assigning a "matching source field" to the "target field" as shown in step #5; (3) Set the null values in the source data to a valid value before loading the data



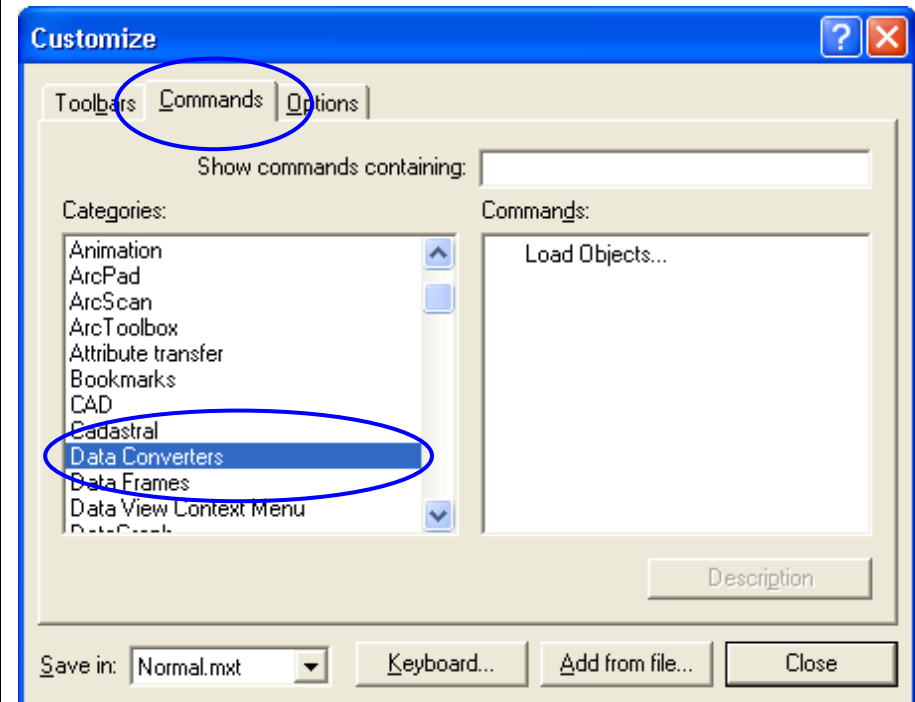
ArcMap “Load Objects” command instructions

Add the “Load Objects” command to the ArcMap Editor Toolbar

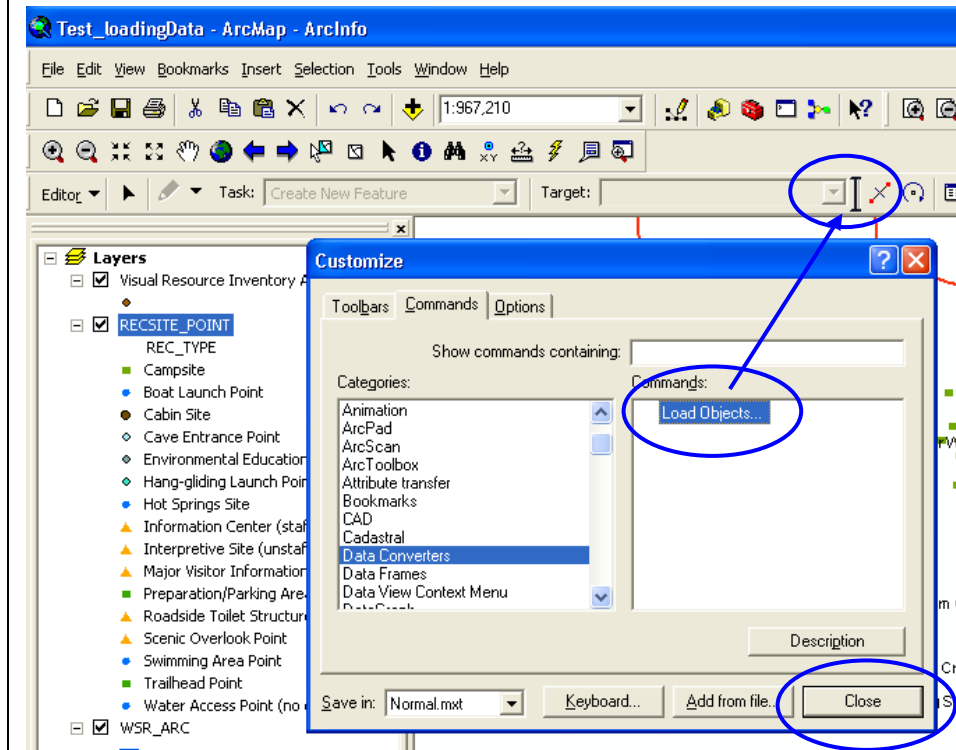
1. Click **view**, point to **toolbars**, move toward the bottom of the list and click **customize**.



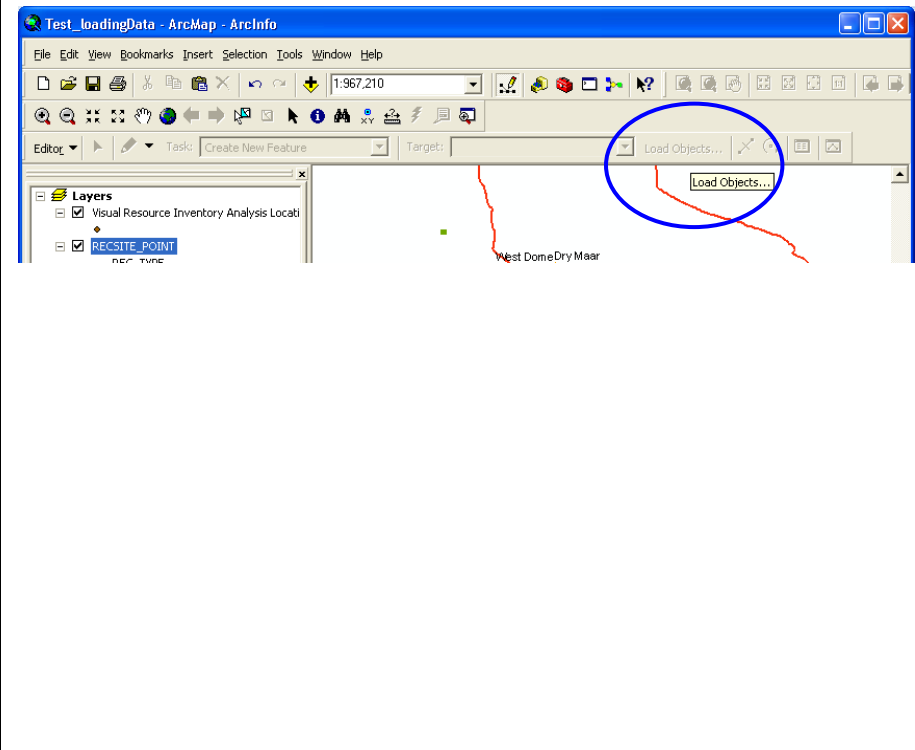
2. Click the **Commands** tab, and then click **Data Converters** in the Categories list.



3. Drag and drop the “load objects” command onto the editor toolbar in ArcMap. Click **Close**.

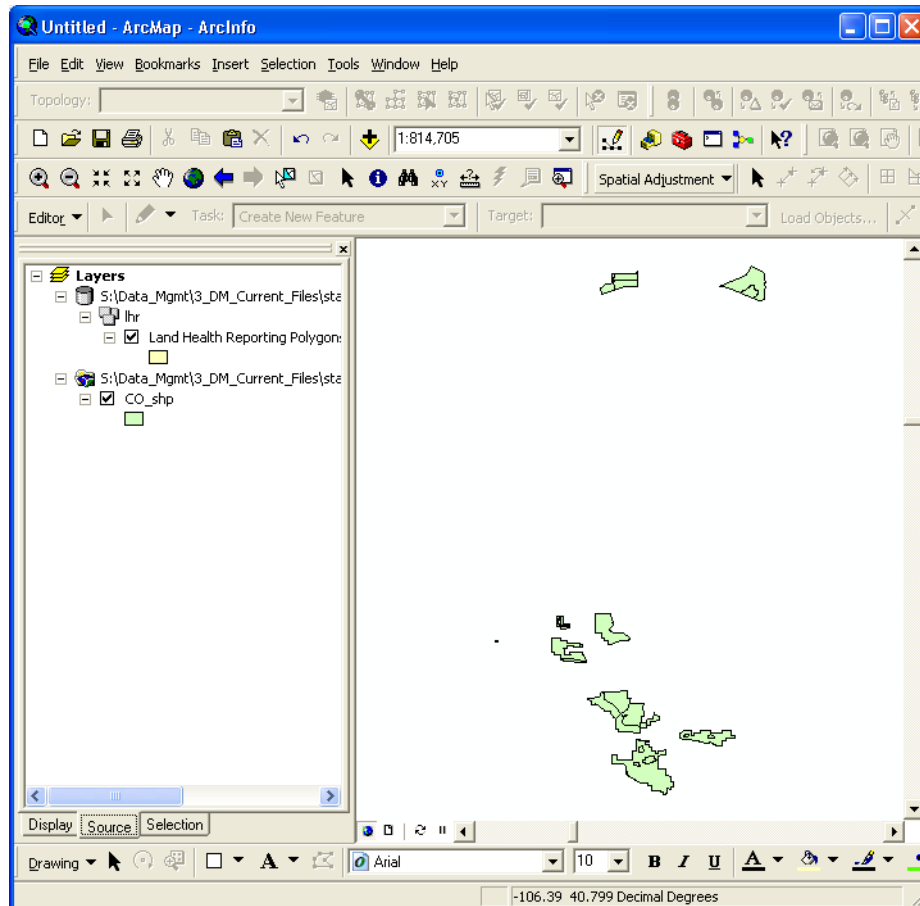


4. The **Load Objects** command is now located on the Editor toolbar. The command will be active during edit sessions.

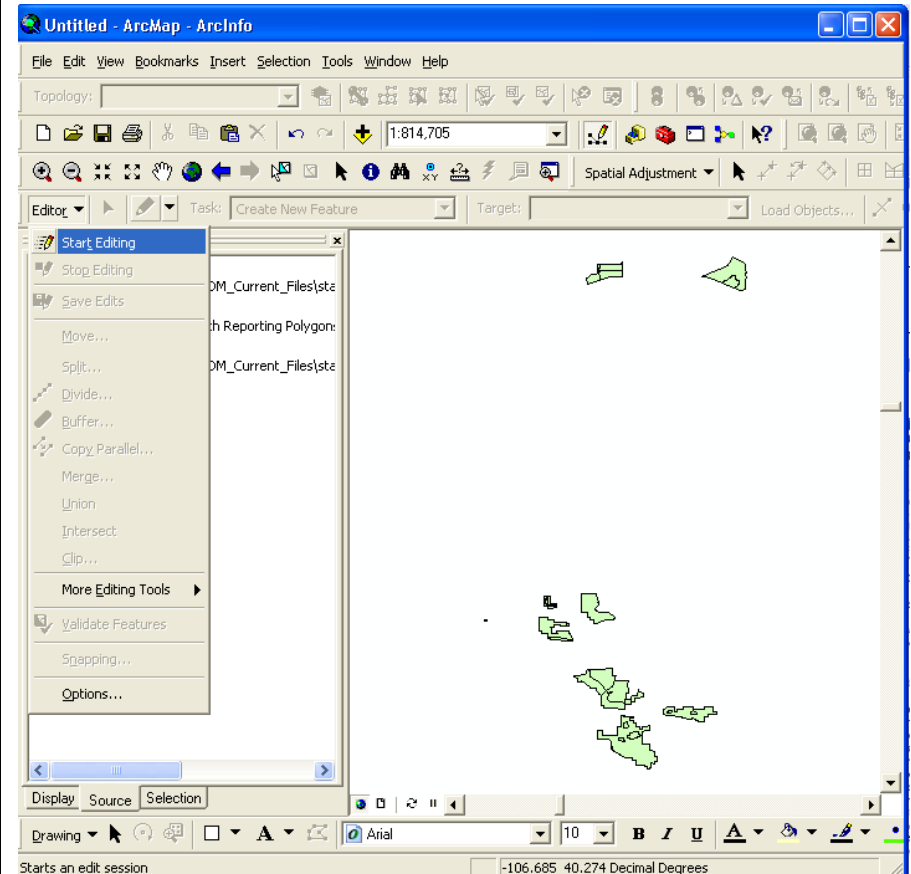


Load data with the "Load Objects" command in ArcMap

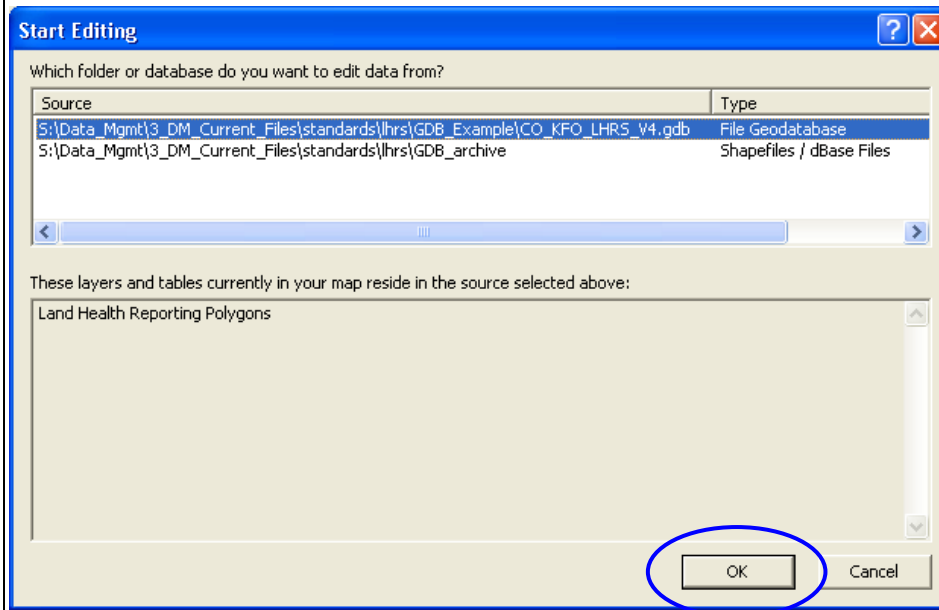
1. Add your data to ArcMap (in this example, the empty target feature class and the populated source feature class have been added)



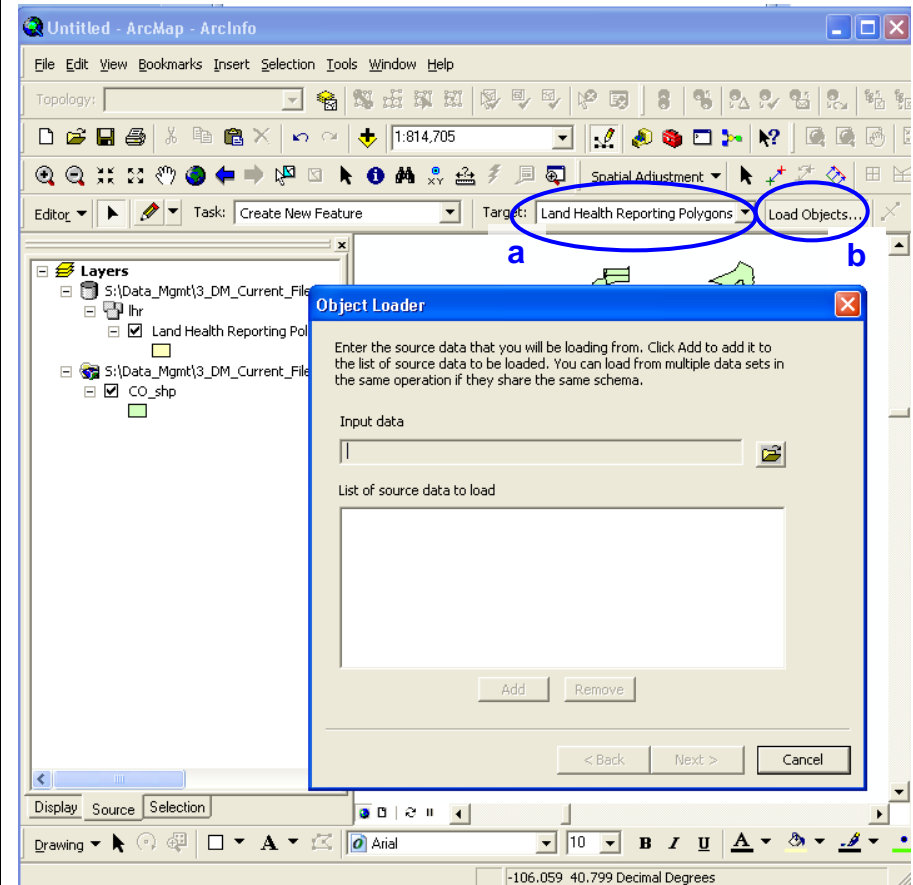
2. Click **Editor**, and then click **Start Editing**



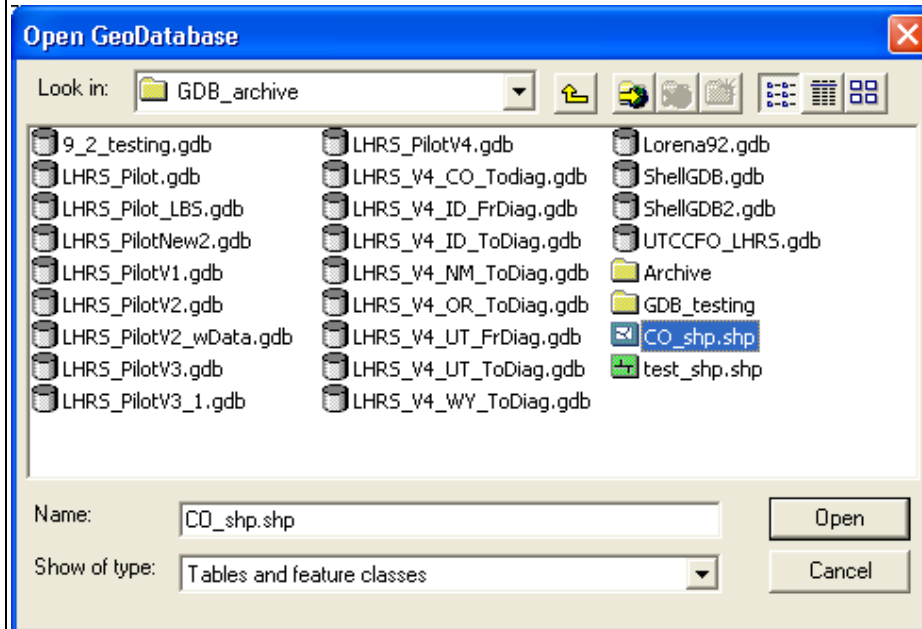
3. If necessary, select the folder containing your empty target feature class. Click **OK**.



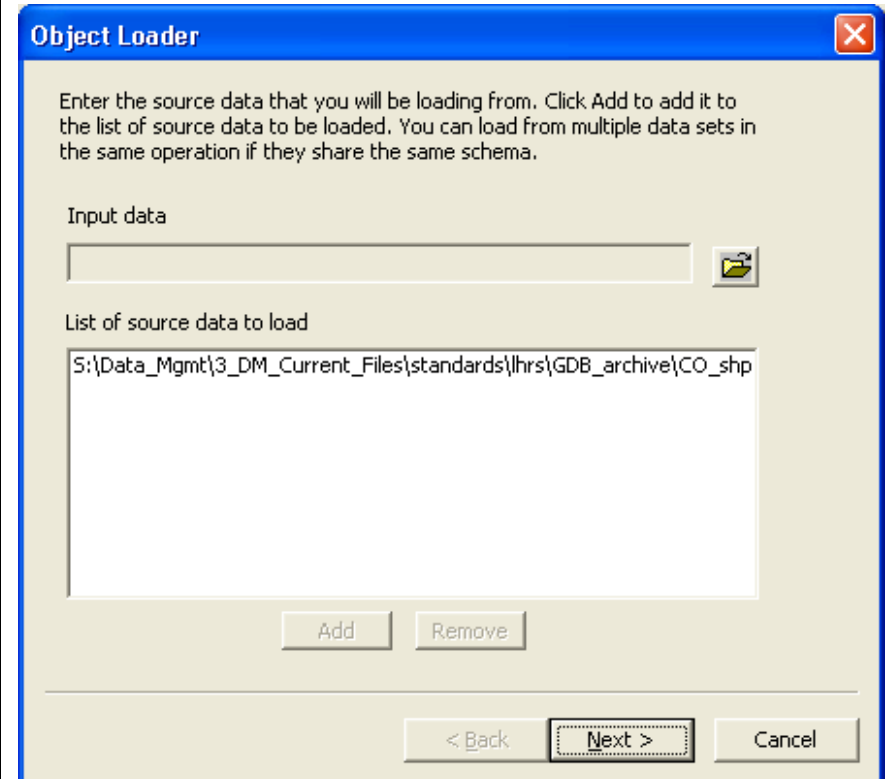
4. Select the data to be loaded into the empty feature class
 - a. **Click** the Target layer drop-down arrow and **select** the feature class or subtype into which you want to load data.
 - b. **Click** the “Load Objects...” command which will open the Object Loader dialog box.



5. Browse to the source feature class, shapefile or ArcInfo coverage. Click **Open**



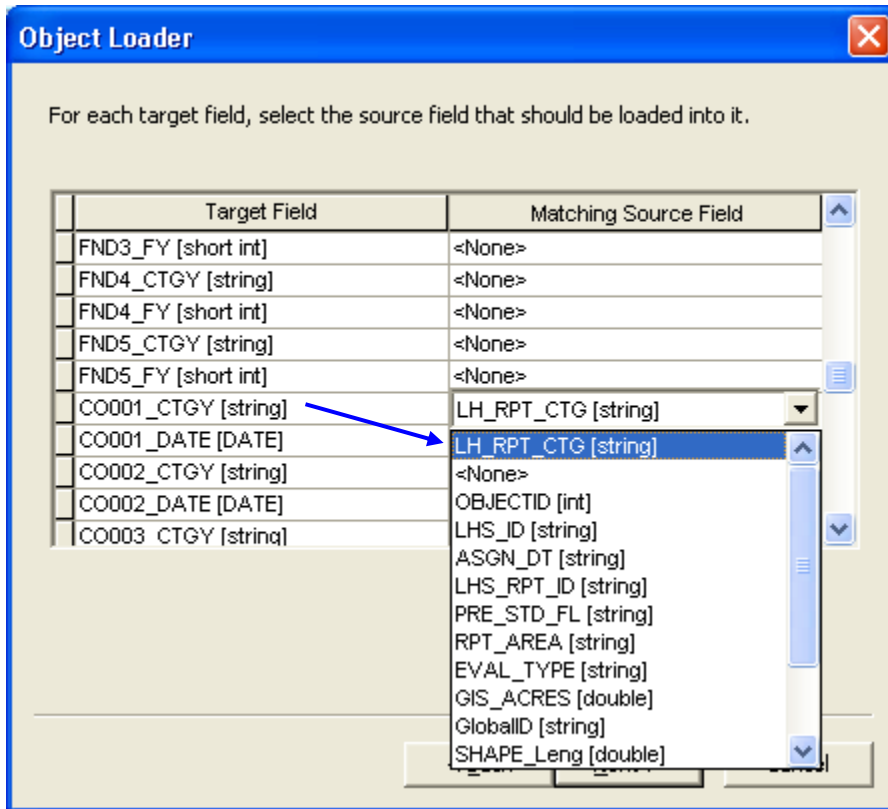
6. Click **Add** to add the source data to the “List of source data to load”. Add any additional input data using the same method until all source data to be loaded into the empty target feature class is listed in the dialog box. Click **Next**.



- Click the drop-down arrow in the Matching Source Field list and click the field from the source data you want to match to the target field. Here the target field “CO001_CTGY” has been matched to the source field “LH_RPT_CTG”. Repeat the process until you have matched the fields you want loaded from your source data.

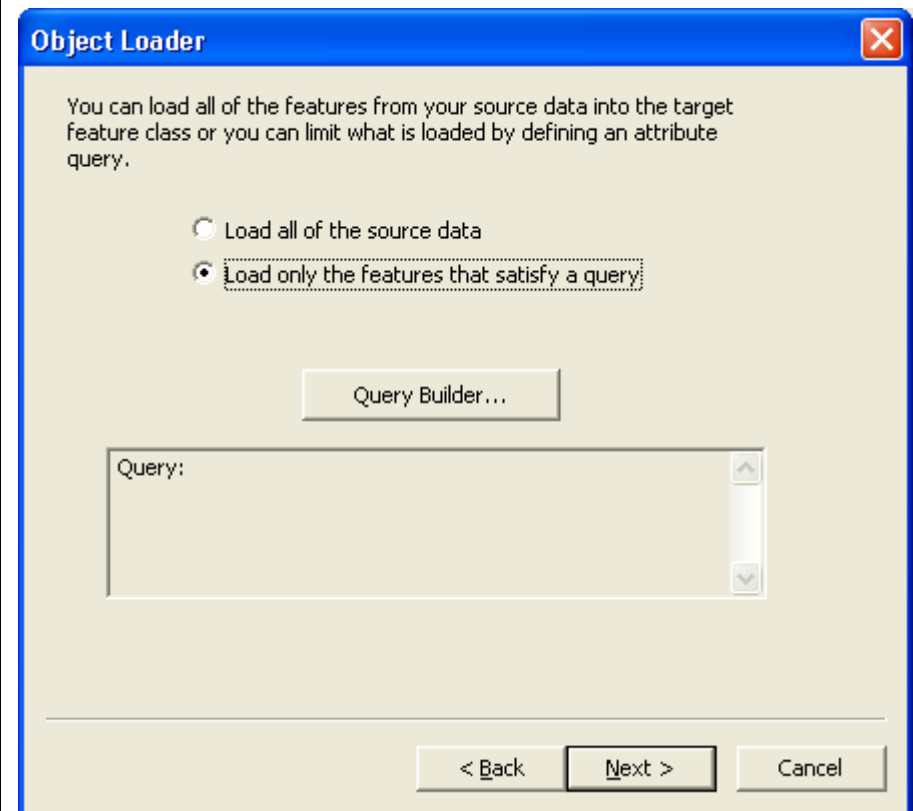
Leave the Matching Source Field as <None> if you don't want data from a field in the source data to be loaded into the target data.

Click **Next**

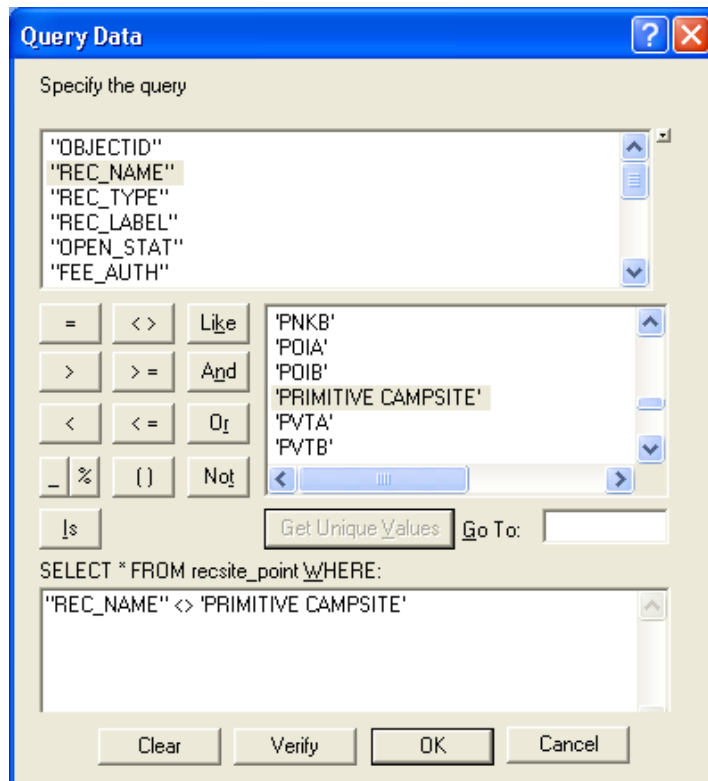


- Choose the appropriate option to load either all of the source data, or only those features that satisfy an attribute query.

If you choose the second option, click the “Query Builder...” button to open the “Query Data” dialog box where you will enter a query for selecting only certain features

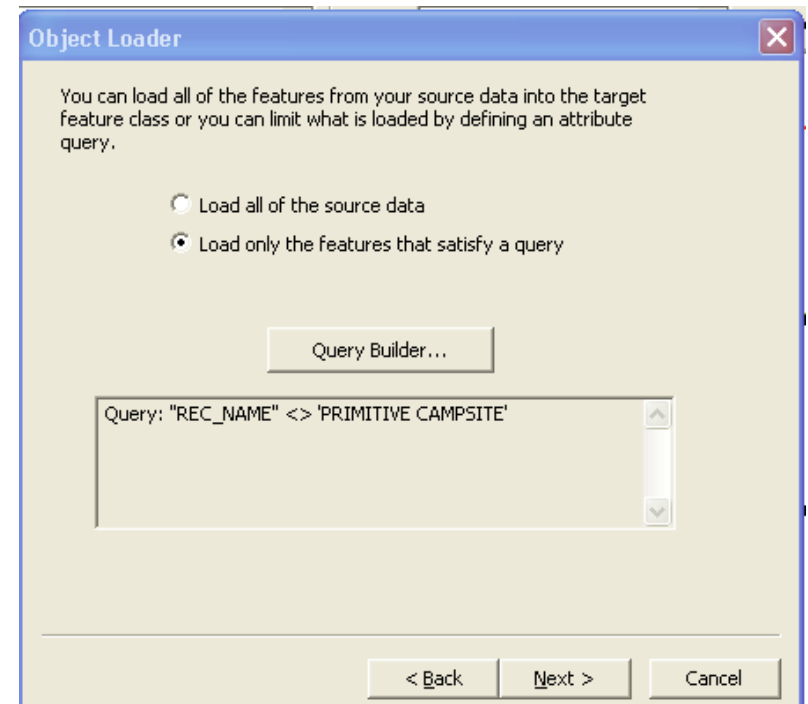


This instruction only applies if entering a query. Enter your query in the Query Data Dialog box as shown below. This query will limit the number of features to be loaded into the target feature class. Click **OK**.



9. Click **No** if you do not want your source features to be snapped to any existing features in the edit session. Use caution if selecting “Yes” as this may change the coordinate position of your data.

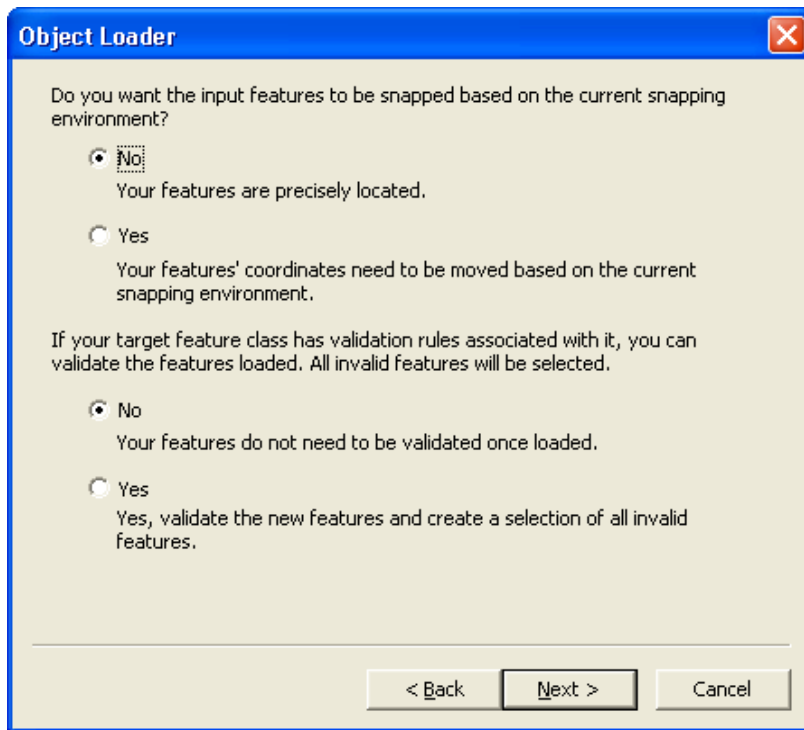
This instruction only applies if entering a query. The query is now loaded, click **Next**



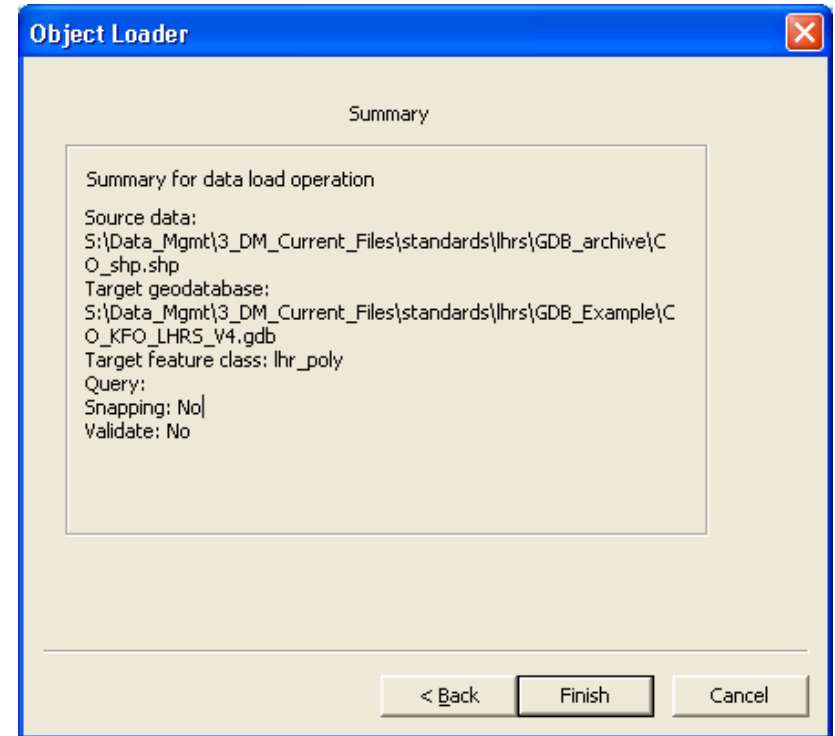
10. Review the options shown in the Summary Screen that you have specified for loading your data. If you want to change something, go back through the wizard by clicking Back.

Click “**No**” if you do not want your new features to be validated after they are loaded. Click “Yes” if the feature class or subtype into which you are loading data has rules associated with it and you want any new invalid features to be selected after the loading process. You may also validate your data later.

Click **Next**



Click **finish** to load the data.



The features from the source data are now loaded into the target feature class with the attribute values populated from the matched target-source attributes.

The screenshot shows the ArcMap interface. The main map area displays several yellow polygons representing land health reporting areas. The 'Layers' panel on the left shows the following layers:

- S:\Data_Mgmt\3_DM_Current_Files\stz
- lhr
 - Land Health Reporting Polygon
- S:\Data_Mgmt\3_DM_Current_Files\stz
- CO_shp

The 'Attributes of Land Health Reporting Polygons' table is displayed below the map. It contains the following data:

LHR Unique ID *	Reporting Area Ty	Evaluation Area Ty	Upland Reporting Cat	Upland E
CON02000(F8537001-EE43-4656-A984-C79C9D4509)	New	Allotment	1	2009.07.01
CON02000(7E CE0B1C-53CA-4E61-B 322-D411D990F)	New	Allotment	1	2009.07.01
CON02000(0992AB56-E781-4570-948D-A53772928E)	New	Allotment	1	2009.07.01
CON02000(951278CB-74F1-4852-A951-CB76637B3F2)	New	Allotment	1	2009.07.01
CON02000(9A7C770F-A7BA-407E-A015-F5C04C8789)	New	Allotment	2b	2009.07.01
CON02000(1A45D394-91C6-48AB-AC75-8FBB74DEB)	New	Allotment	1	2009.07.01
CON02000(719E3001-AFAC-4550-B1BB-2D12C5B89A)	New	Allotment	3	2009.07.01
CON02000(IC3D6260B-DD65-4284-91F2-9E441632C)	New	Allotment	3	2009.07.01
CON02000(8CED3230-9C03-4D89-9B80-08BCCBA79)	New	Allotment	1	2009.07.01
CON02000(607D2682-8462-4D0A-B381-A11F12FC0F)	New	Allotment	1	2009.07.01
CON02000(77235F40-094C-4A8E-A7EA-9F6D591AFB)	New	Allotment	2c	2009.07.01
CON02000(32593DD8-77E6-4388-BA79-63152B4C1D)	New	Allotment	1	2009.07.01
CON02000(73212258-5791-4090-BB77-26C29CDFB)	New	Allotment	2c	2009.07.01
CON02000(6C9338E2-45BA-403A-810F-82476F38A9)	New	Allotment	2c	2009.07.01
CON02000(2788830E-2077-4D7F-8413-EC68569112B)	New	Allotment	1	2009.07.01
CON02000(E51D58B9-C2BF-48F0-BAA1-BE58BEE3BD)	New	Allotment	1	2009.07.01
CON02000(D38FC1E8-B38F-4E44-88D9-6EC407489D)	New	Allotment	1	2009.07.01
CON02000(53073847-63A9-4FC2-9282-52E8A8E9683)	New	Allotment	1	2009.07.01
CON02000(F2945FA7-74BB-40F4-A076-F88D11F2F17)	New	Allotment	1	2009.07.01

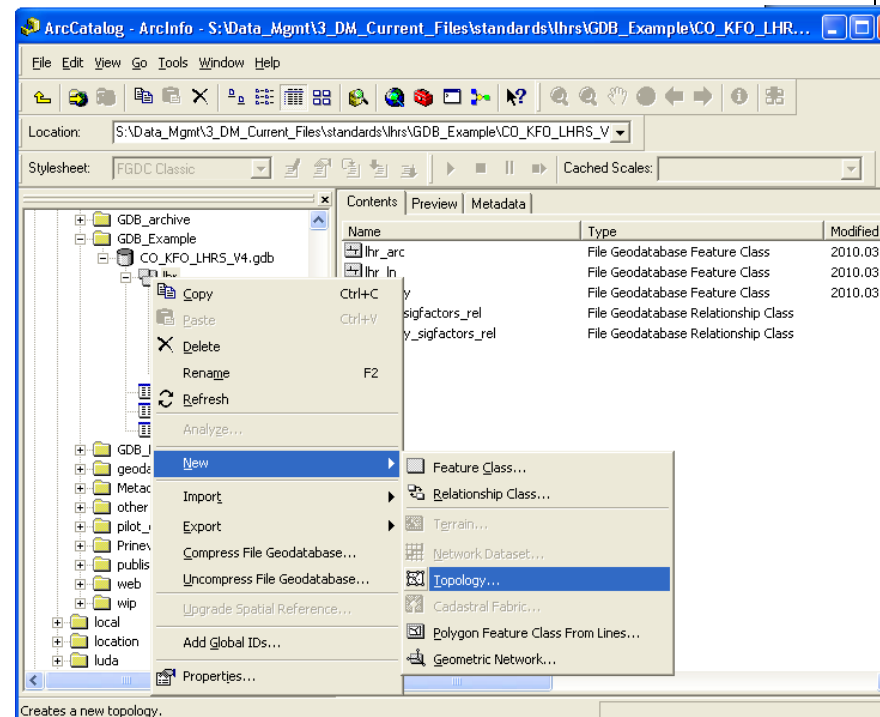
The table footer shows: Record: 0, Show: All Selected, Records (0 out of 28 Selected), Options.

LOAD GEODATABASE TOPOLOGY RULES

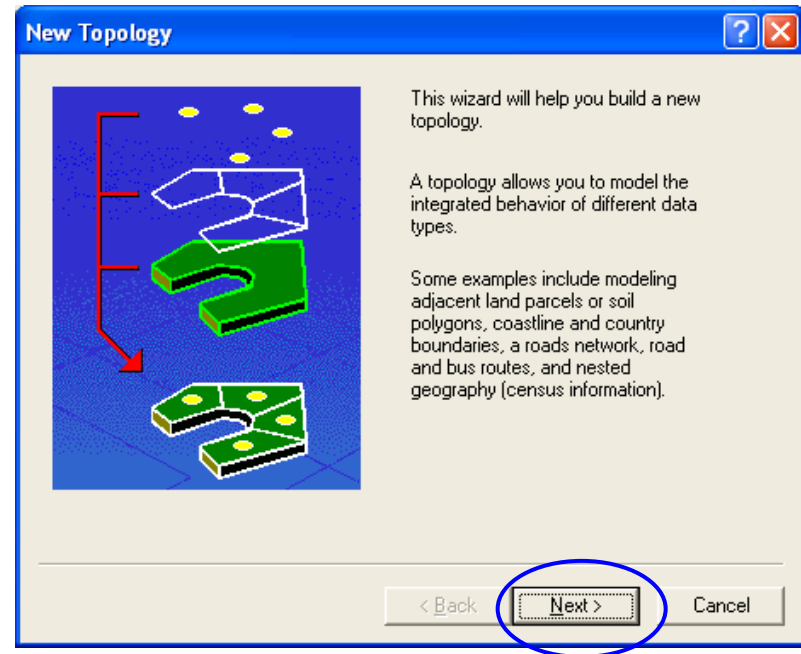
Geodatabase topology should be used to help maintain data integrity. Some users have experienced unexpected results when the topology rules are loaded into the geodatabase before any data. Therefore, you may want to load data first, and then load the topology rules.

Following are instructions for setting up the correct GDB topology rules, again using the Colorado geodatabase as an example.

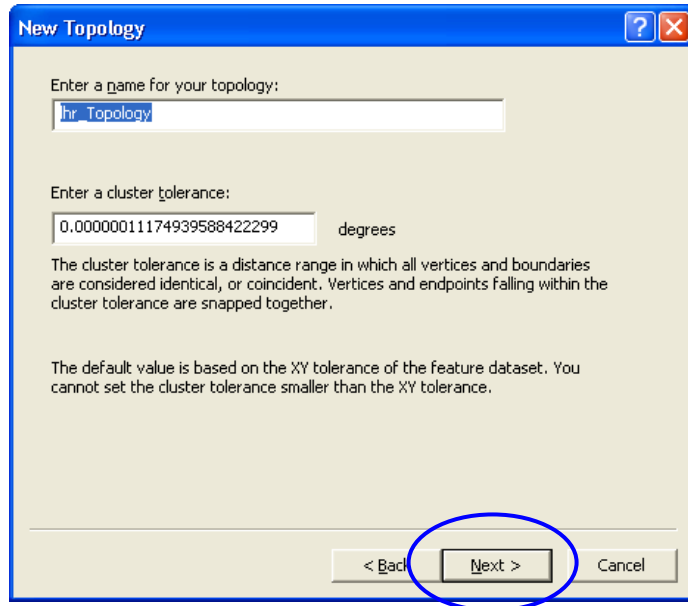
1. Navigate to the directory where your LHRs Geodatabase is located. Right-click on the “lhr” Feature Dataset, and select **New > Topology**



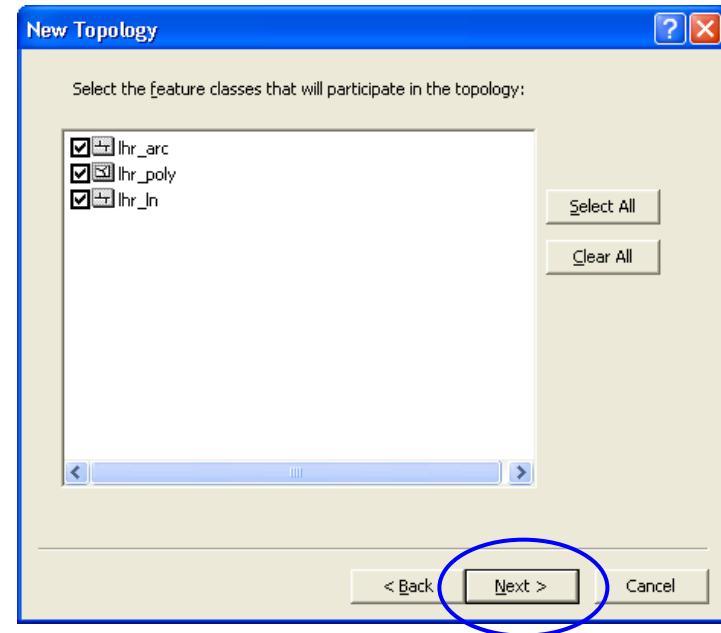
2. You will go through a New Topology wizard sequence that will guide you through the steps necessary to set up the geodatabase topology rules specific to your dataset.



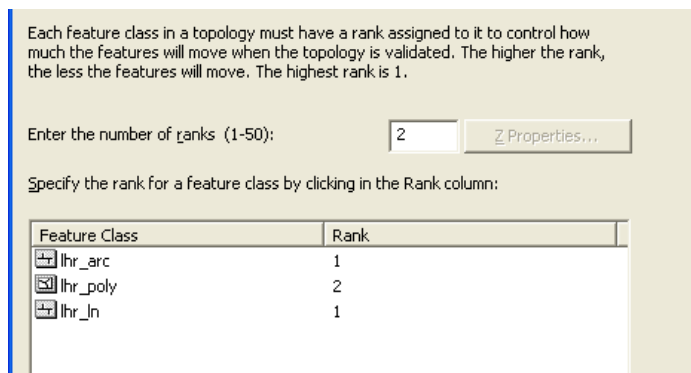
- On the second screen, you can either leave the defaults, or change the values. Here we have accepted the defaults. Click **Next**



- Select (place a check in the box) all three feature classes. Click **Next**

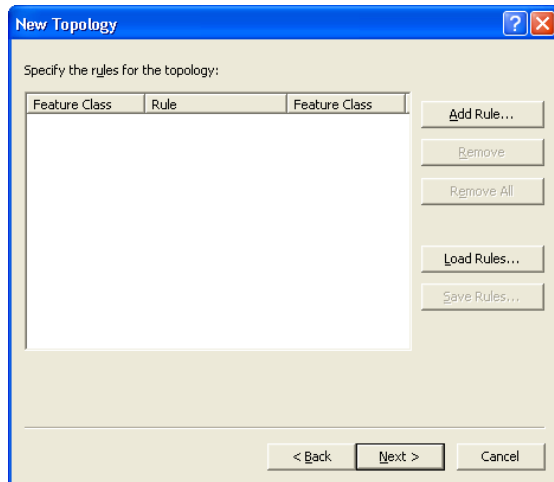


- Rank each of the selected feature classes. Rank the arc/line feature classes with a "1", and the poly feature class with a "2" as shown below. Click **Next**.

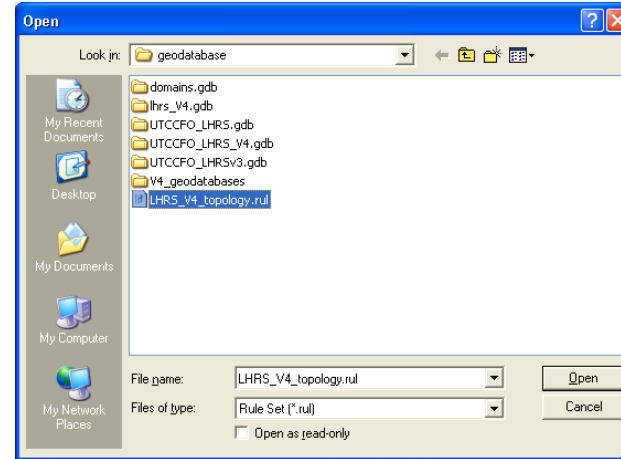


- The topology rules will be specified in the next screen of the "New Topology" tool. You may either manually add the topology rules that were specified in the implementation guidelines, or you may load a file which contains the defined topology rules

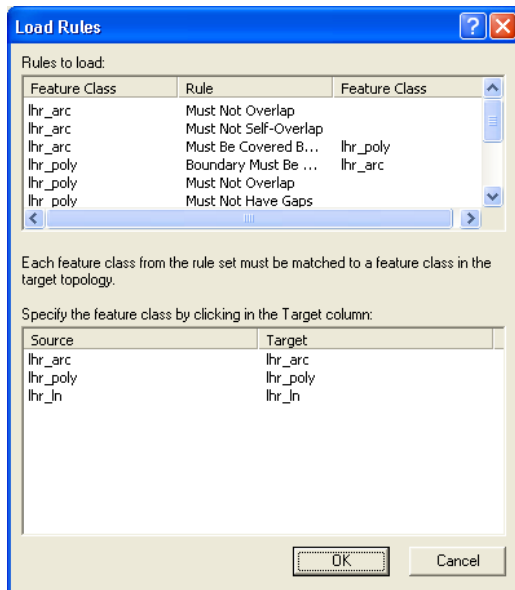
7. Click **Load Rules....**



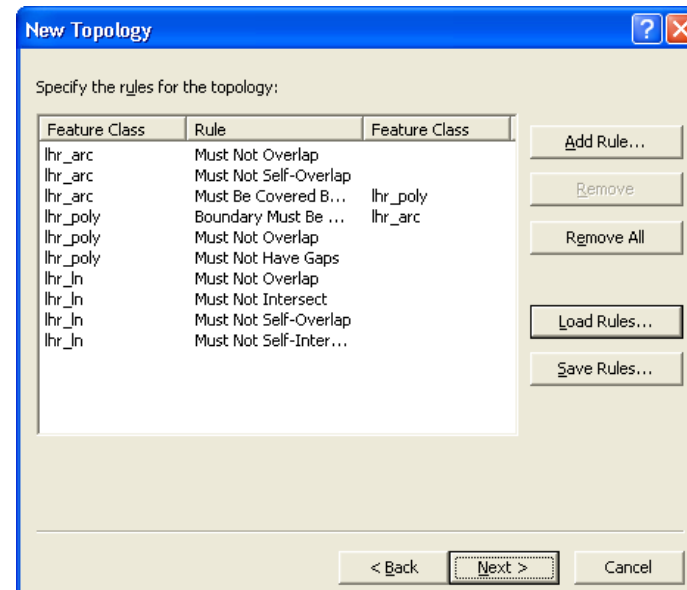
8. Navigate to where you saved the LHRV_V4_topology.rul file.
Click **Open**



9. Verify that the expected topology rules are shown. Click **OK**

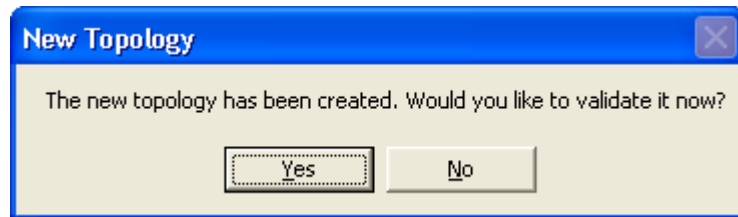


10. The rules from the file will now be shown in the “New Topology” tool window. Click **Next**.

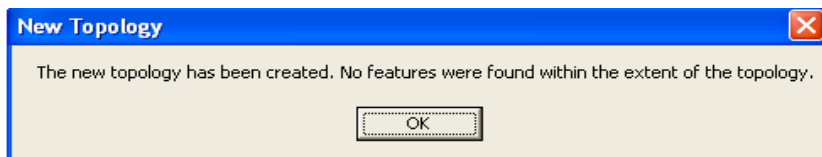


11. Review the Summary, click **Finish**. A window with a progress bar will show while the topology is being created. After the topology has been created, one of two windows will appear.

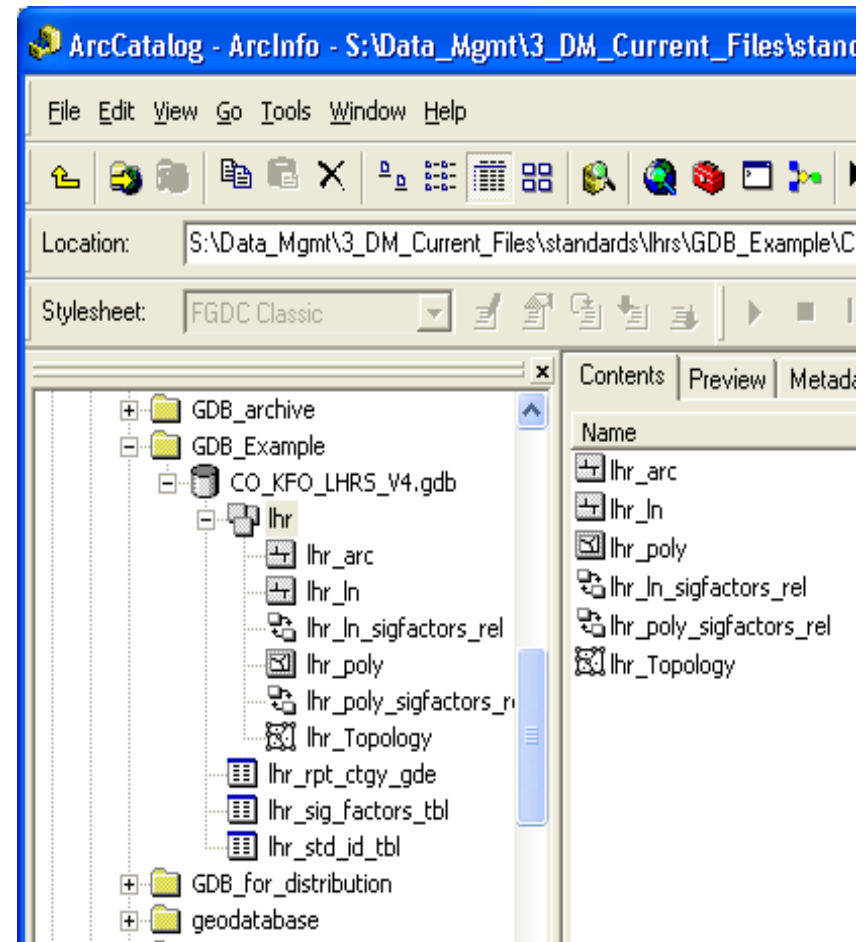
- a. If topology was created within a feature dataset where at least one of the feature classes has data, the following will appear. Choose whether the new topology should be validated. (Topology can be validated later)



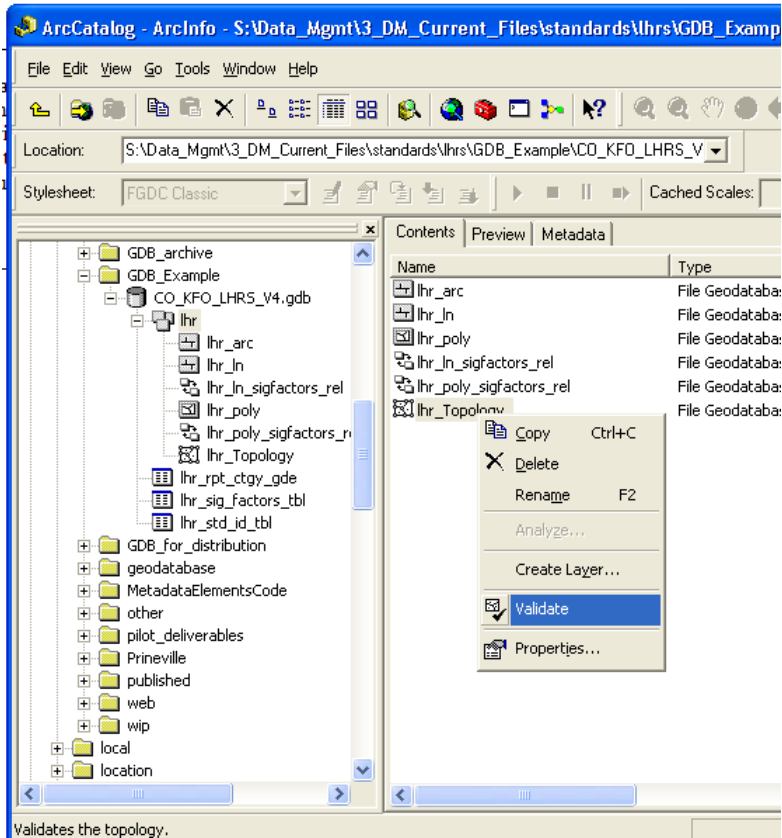
- b. If topology was created within a feature dataset where non of the feature classes contain data, the following will appear.



12. As shown below, topology has been added to the feature dataset within the geodatabase.



13. The topology may be validated, or have additional rules and feature classes added. Right click the lhr_topology and select either Validate or Properties.



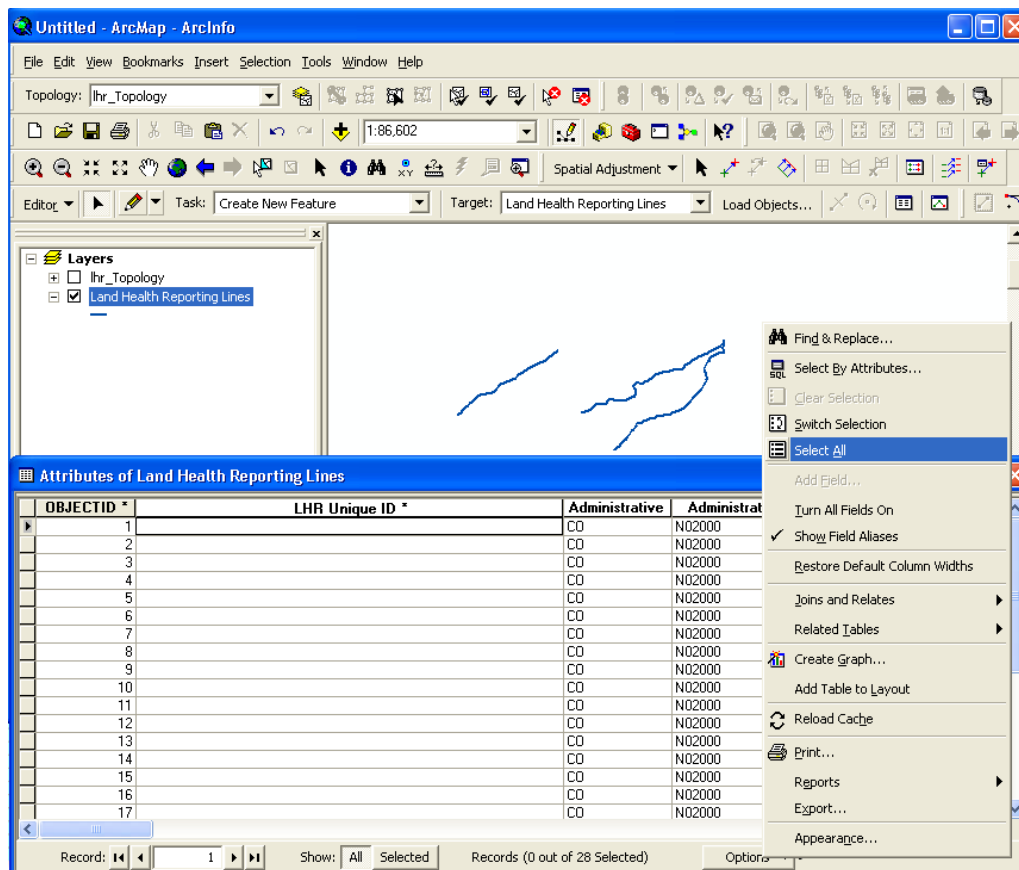
CALCULATE UNIQUE IDENTIFIER VALUES

Unique identifiers need to be calculated for each feature in all of the feature classes. This unique identifier will be used to relate the feature class to the Significant Factors table. This unique identifier is a concatenation of the

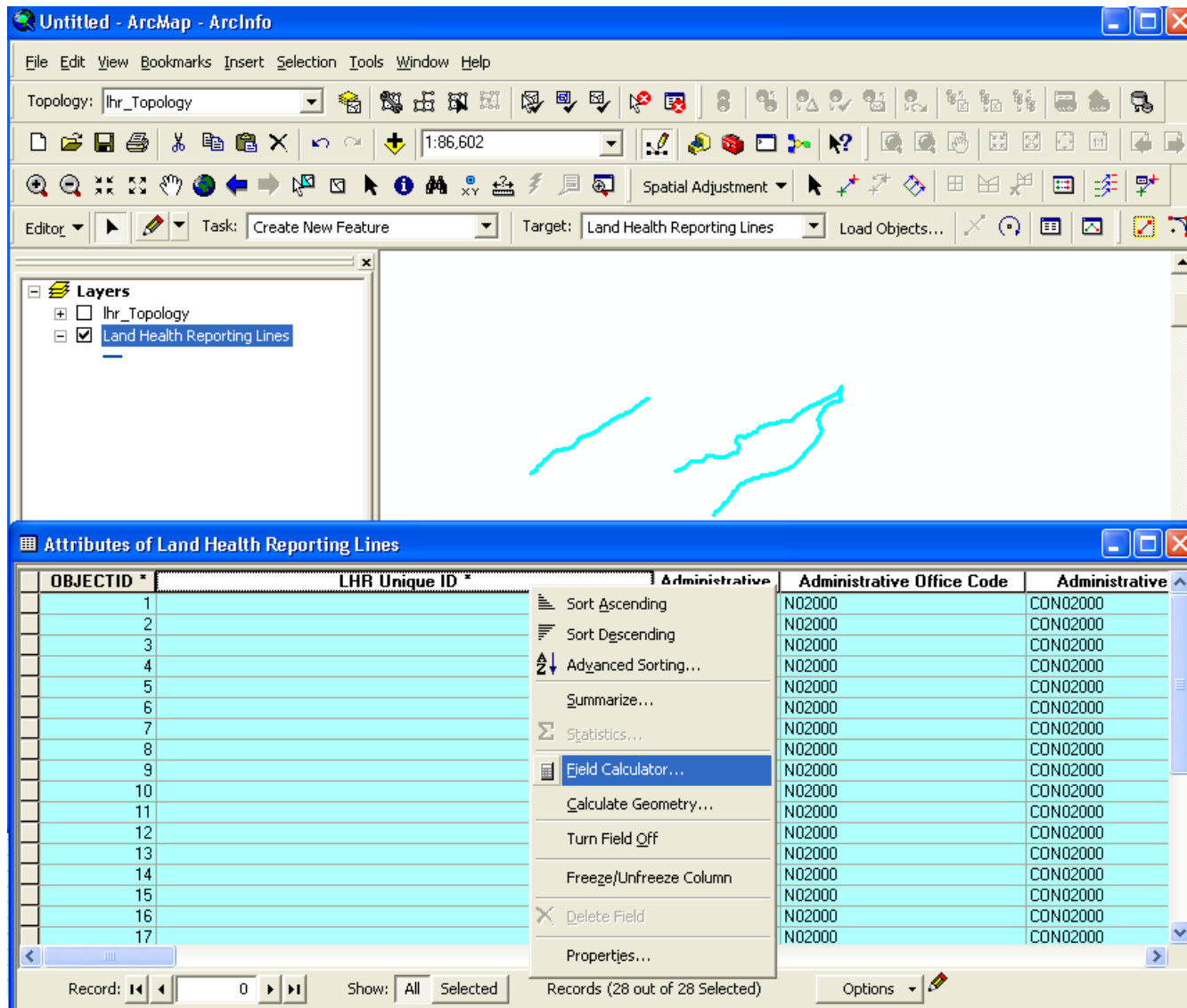
- 2 digit administrative state office (ADMIN_ST attribute),
- 6 digit administrative office code (ADM_OFCD_CD attribute),
- And the 36 character GlobalID generated in ArcCatalog.

The unique identifier may be populated using the field calculator as illustrated in the example below.

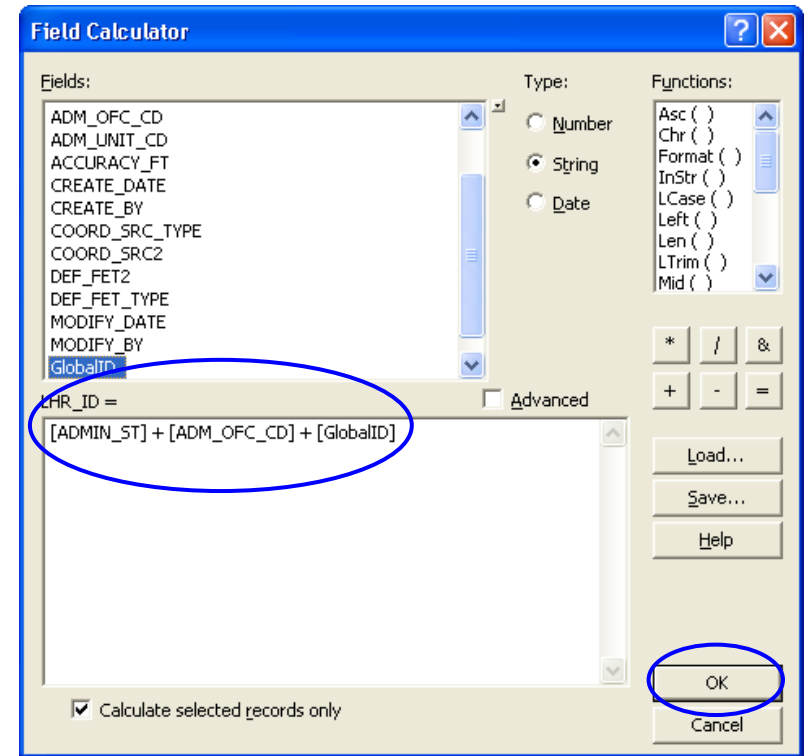
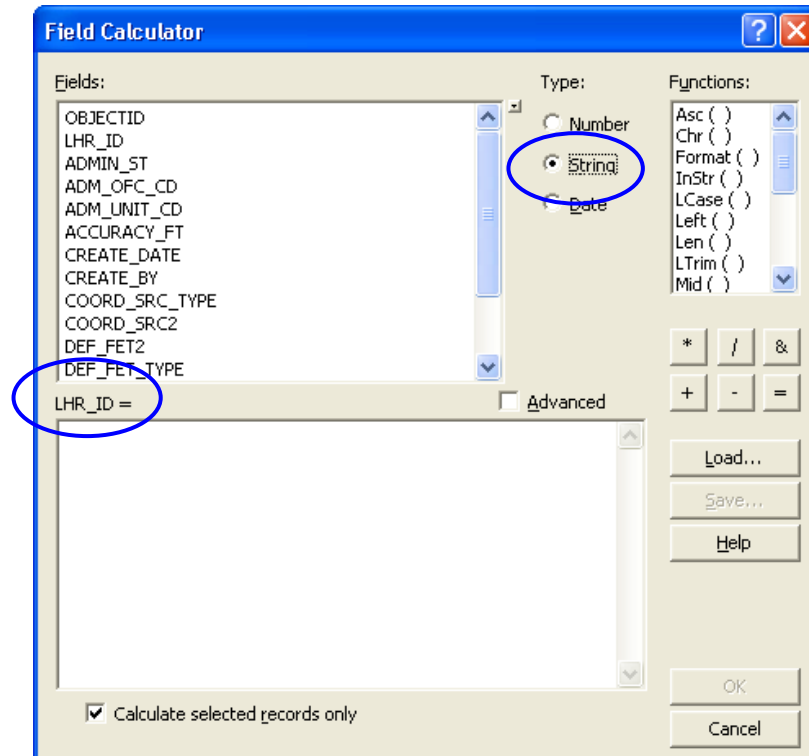
1. In ArcMap, load the feature class and start an edit session. Open the Attribute table. Go to **Options > Select All**



2. Right-click the “LHR Unique ID” column (or “LHR_ID” if field aliases are turned off), and select **Field Calculator** from the drop-down menu.



3. In the Field Calculator dialog box, set the data type to string. Verify that the LHR_ID is shown above the expression text box as shown below on the left. Enter the expression as shown to the right using the "Fields" and the operator buttons. Click **OK**



- Save your edits, and stop editing. The image below shows the Unique Identifier field after it has been populated.

OBJECTID *	LHR Unique ID *	Administrative	Administrative Office Code	Administrative
1	CON02000{858DB3DC-D17A-4F79-B4B1-69F786501CCC}	CO	N02000	CON02000
2	CON02000{E9677B16-4F6D-49FE-B3AD-E815C4EAB410}	CO	N02000	CON02000
3	CON02000{88C504E1-16E3-4AA5-9F4E-4CAE7848A98F}	CO	N02000	CON02000
4	CON02000{EEE99CF6-C9EC-4400-9DBC-6500DB7482A8}	CO	N02000	CON02000
5	CON02000{AE946547-9143-4456-9FA2-1191EE979F0D}	CO	N02000	CON02000
6	CON02000{6A422696-54E3-4E8B-A371-E02F8B236944}	CO	N02000	CON02000
7	CON02000{11A61834-FFCD-4DDC-9D7D-9417D8819058}	CO	N02000	CON02000
8	CON02000{A428B259-71C2-4E6F-922B-C5BAF6F68547}	CO	N02000	CON02000
9	CON02000{C7681AE2-985E-40FA-9196-9879D9E02D33}	CO	N02000	CON02000
10	CON02000{29EBCEF9-4C71-4A92-8DF0-ACB4F8618A7A}	CO	N02000	CON02000
11	CON02000{E4FEE80B-323B-4C18-8BD4-22A41110C244}	CO	N02000	CON02000
12	CON02000{CD2759DC-1AC9-49B5-9E41-861D6FB146CB}	CO	N02000	CON02000
13	CON02000{3357A59A-EBAF-4410-A14B-1985CE688BD8}	CO	N02000	CON02000
14	CON02000{AAA7B108-AC95-4535-BFCE-E9B64180A290}	CO	N02000	CON02000
15	CON02000{A1728BF3-C95A-4115-A991-97D0CD5E1E84}	CO	N02000	CON02000
16	CON02000{9F46B189-0574-4BE1-A002-D8C55B1A6C28}	CO	N02000	CON02000
17	CON02000{5751A48F-0C81-4C77-8913-C1A554CB4CA8}	CO	N02000	CON02000

Save your edits to preserve the unique identifier calculation.

(Note to 9.2 users: When you add a new feature, you must Save your edits in order for the software to update the “GlobalID” field - - Prior to saving, the GlobalID field will be populated with all zeroes)

