# Chapter 17: Exports Explorer

Overview of Exports

NASIS provides a SSURGO Version 2 export format that can either be sent to the Staging Server or downloaded for importing into the SSURGO template. The export requires that a selected set be built containing the data to be exported.

- · At a minimum, the legend(s) for the soil survey must be loaded to create the export. If only Legends are loaded, the export can be generated for the survey(s) by completing the dialog screens that enables NASIS to select the mapunits, data mapunits, and components to be exported from the permanent tables.
- · The selected set can be fully populated based on specific user requirements allowing more control over the records selected for export.

Selecting Records for the SSURGO Format

Begin a SSURGO format export by identifying the soil survey(s) to export. In this scenario, a query will be run to load all data associated with the soil survey. Use the national query "***Area/Lmapunit/Mapunit/Datamapunit by Area Symbol***" to load the soil survey legend and all associated data into the selected set.
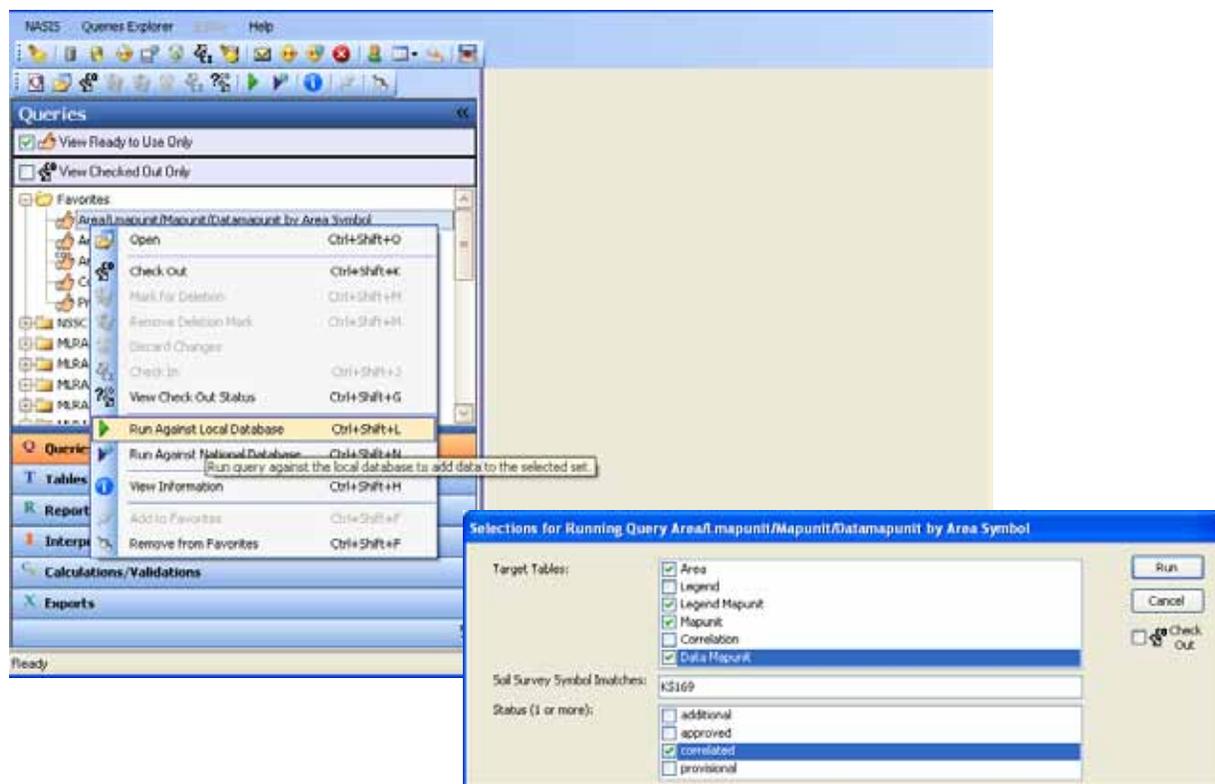
This scenario will load all the data associated with survey "KS169", choosing only the correlated mapunits.

Note: A dialog box will appear displaying the rows to be loaded and this same information will appear in the Message panel:

Pay attention to the number of rows added. Depending on the query, it could load multiple legends for a given survey area. Unless the intent is to export multiple legends, it is best to use a query that restricts selections by survey status. The data needs to be complete and carefully selected to obtain the desired export results.

After the data are loaded, open the Legend, Mapunit, and Data mapunit tables and verify the data. Loading all the data based on the user needs provides full control in selecting the specific data to export.
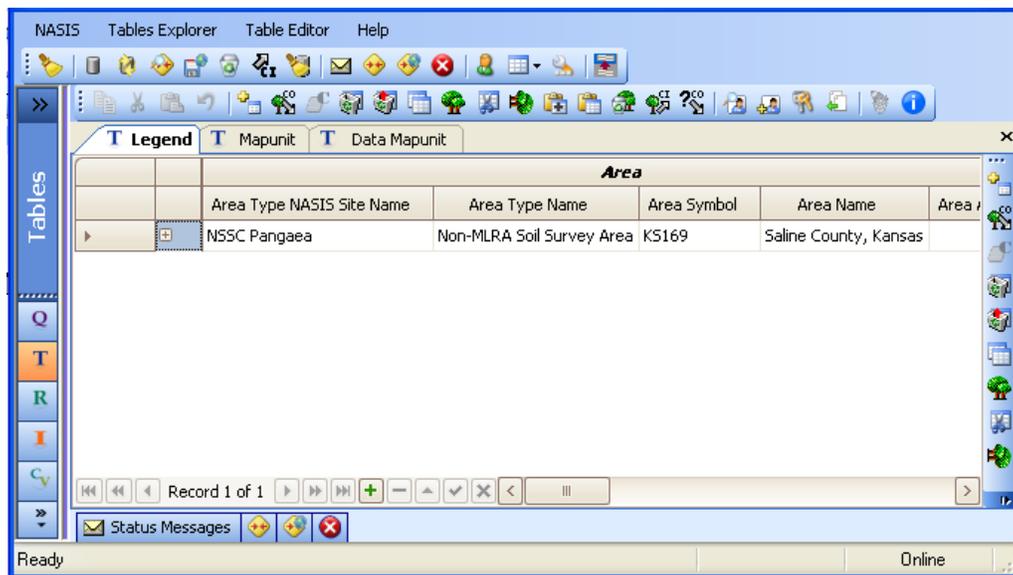
Running Validations

Before running an export, it is required that validations be run against the data in the selected set. This step is mandatory for all data being submitted to the Staging Server.
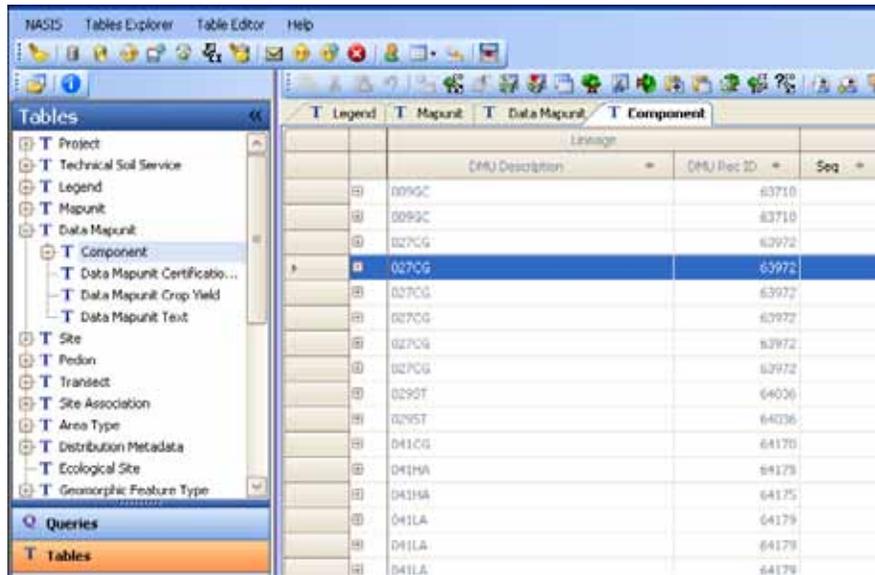
- · Open the Data Mapunit table in the Editor Panel.
- · Highlight all rows using the Ctrl+a hotkey.
- · Then open the Calculations/Validations object in the Explorer panel
- · Open the Validations tree and select the Data Mapunit table
- · Right Click on Component Percentages and choose "Run Against Local Database"
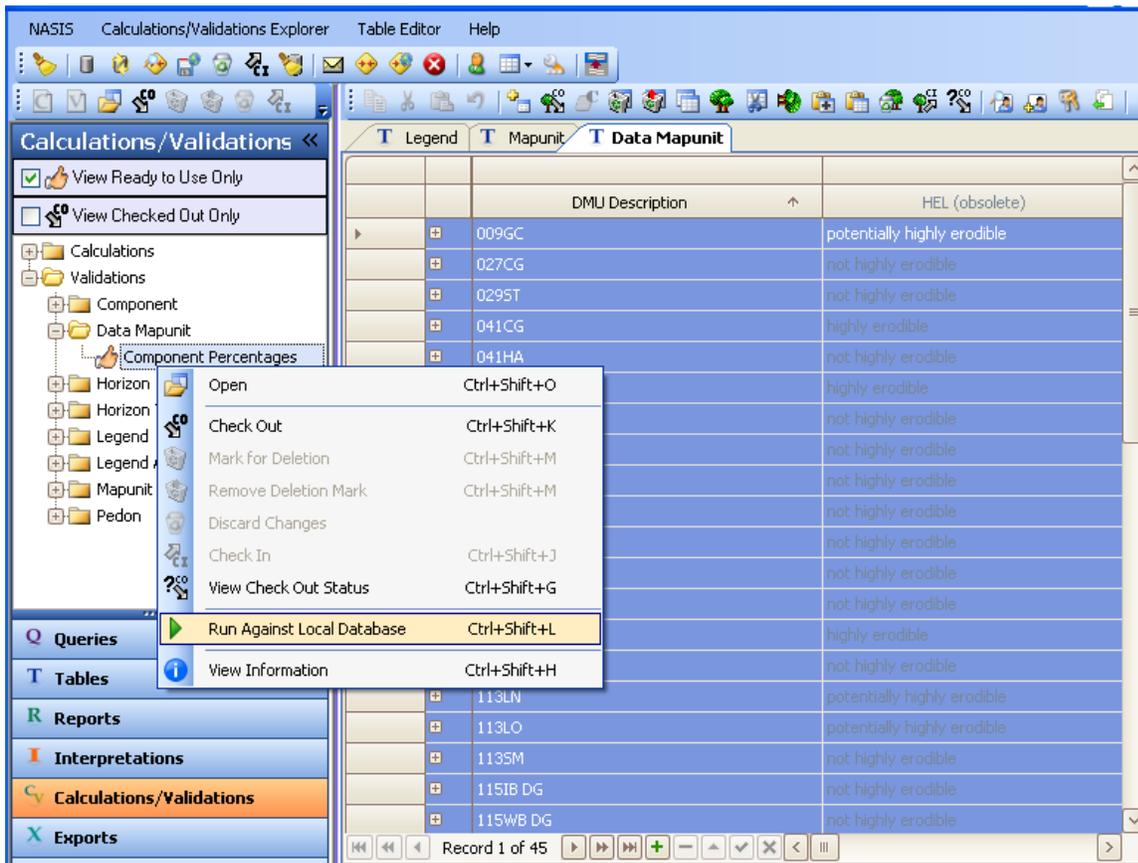
If the validation passes, the Message panel will contain the results:
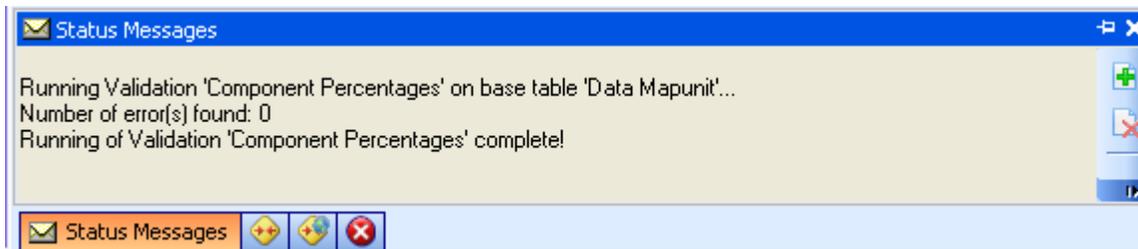
Continue this process for the Component and Horizon tables.

- · Highlight all rows using the Ctrl+A hotkey.
- · Then open the Calculations/Validations object in the Explorer panel
- · Open the Validations tree and select the Component table
- · Right Click on each Validation and choose "Run Against Local Database"
- · Continue this process with all tables and validations before exporting data
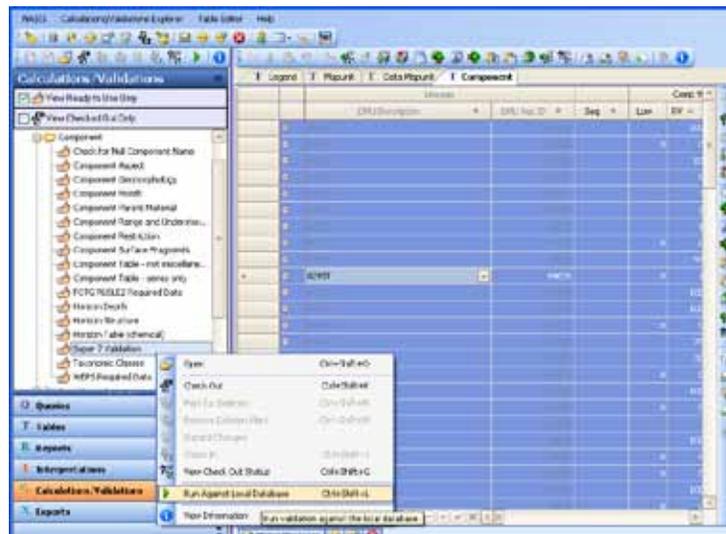
Validation errors appear in the Message Panel in Validation Results. Click on the hyperlink to return to the data record in error. Edits require data to be checked out.
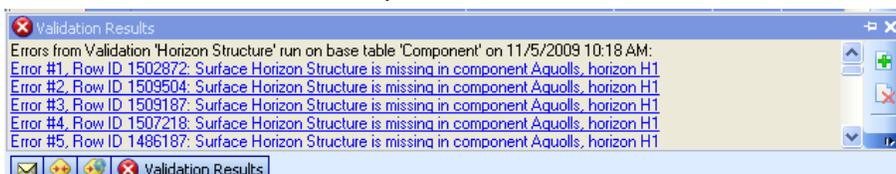
Open Exports Explorer and Select Criteria

The Exports Explorer is opened by choosing the "Exports" object in the Explorer panel.

Click on the "Exports" object in the Explorer panel.

The Explorer menu changes its name to "Explorer Editor" and the Explorer toolbar changes to the Exports format. The "Add New Export" icon appears on the Explorer toolbar and the menu option is available on the Exports Explorer menu.

Select the "New Export" icon.
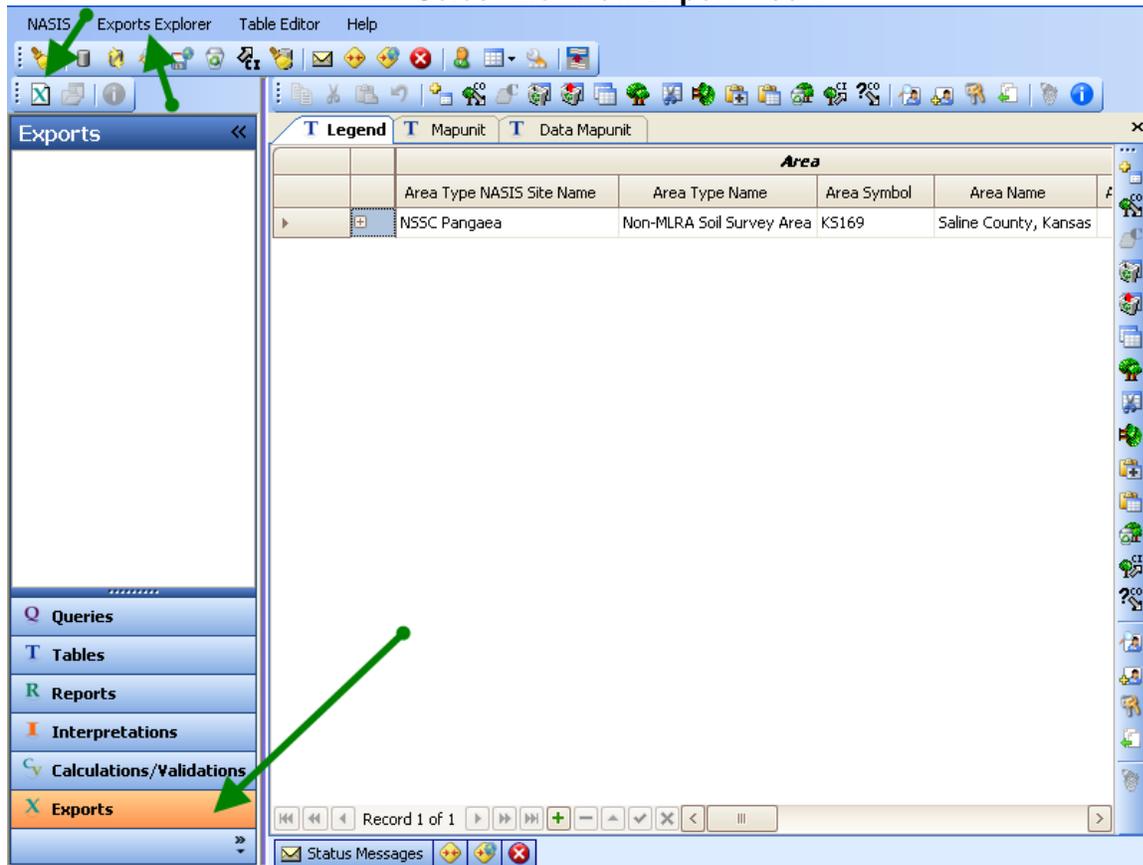
Notice the menus and toolbars change to the "Exports" format.
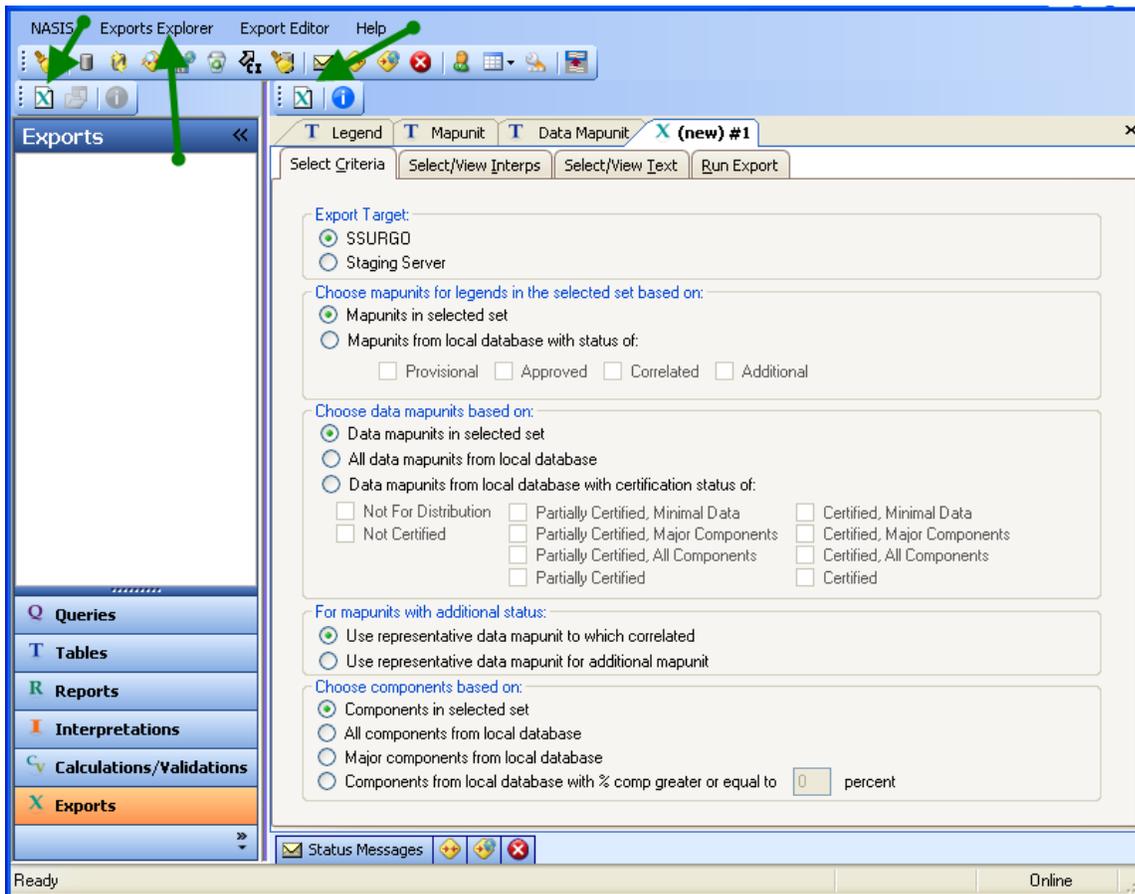
In this scenario, the legend and its mapunits and their data mapunits were selected using a query to load the specific data for the export. Referring to the image above:

1. **Export Target**:
   Select **SSURGO** format.
   All users are authorized to export using the **SSURGO** target.
   The State Soil Scientist (or designee) is the only authorized user allowed to export to the **Staging Server**. The following will appear for unauthorized users.
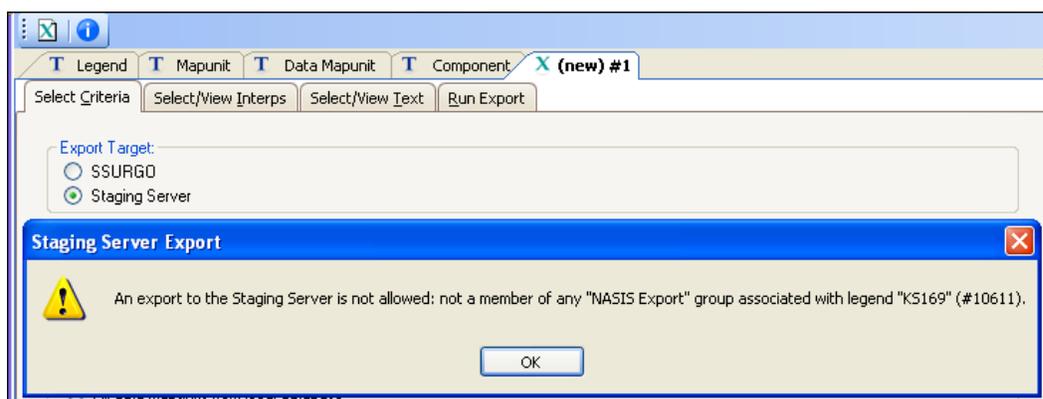
2. **Choose mapunits for legend in the selected set based on**:
   Two choices are available for mapunits,
   a. "**Mapunits in selected set**" is chosen because a query was used to load all data based on the users' specifications.
   b. If the Legend is the only data in the selected set, click the button preceding **Mapunits from local database with status of:**
      The user then chooses the mapunit status to export: **Provisional, Approved, Correlated,** and/or **Additional**.
      Note: The Export Dialog allows multiple selections for the different mapunits but the user must carefully consider the value of exporting Additional and Provisional map units.

3. **Choose data mapunits based on:**
   Three choices are available for mapunits,
   a. "**Data mapunits in selected set**" is chosen because a query was used to load all data based on the users' specifications.
   b. "**All data map units from the local database**" is used if the local database is limited to only the data mapunits to be exported.
   c. "**Data mapunits from the local database with a certification status of**": is used to specify data mapunits based on their certification status in the local database that will be exported**.**

4. **For mapunits with additional status**
   Two choices are available for additional mapunits,
   a. "**Use representative data mapunits to which correlated**" is used to select the DMU associated with the map unit to which the additional map unit is correlated. To be "Additional" a map unit must be correlated to another map unit. This choice exports the data for the map unit the additional is correlated to.
   b. "**Use representative data mapunits for additional mapunit**": is used to export the DMU that is linked to the additional map unit.

5. **Choose components based on**:
   Four choices are available for mapunits,
   a. "**Components in selected set**" is used if the selected set is fully populated based on the users specifications.
   b. "**All components from the local database**": is used if the local database is limited to only the data mapunits to be exported.
   c. "**Major components from the local database**": is used to specify major components in the local database that will be exported**.**
   d. "**Components from local database with % composition greater to or equal to percent**": The component selections allow selection of components by percent of composition. Percent composition is not always an indicator of component significance. For example, in the case of hydric soils using percent of composition may eliminate important components. Use this option with caution.

Select/View Interpretations

Tabs are available to complete the export process. Click on the "Select/View Interps" tab to specify the interpretations to apply to the export data. The interpretations can be from the
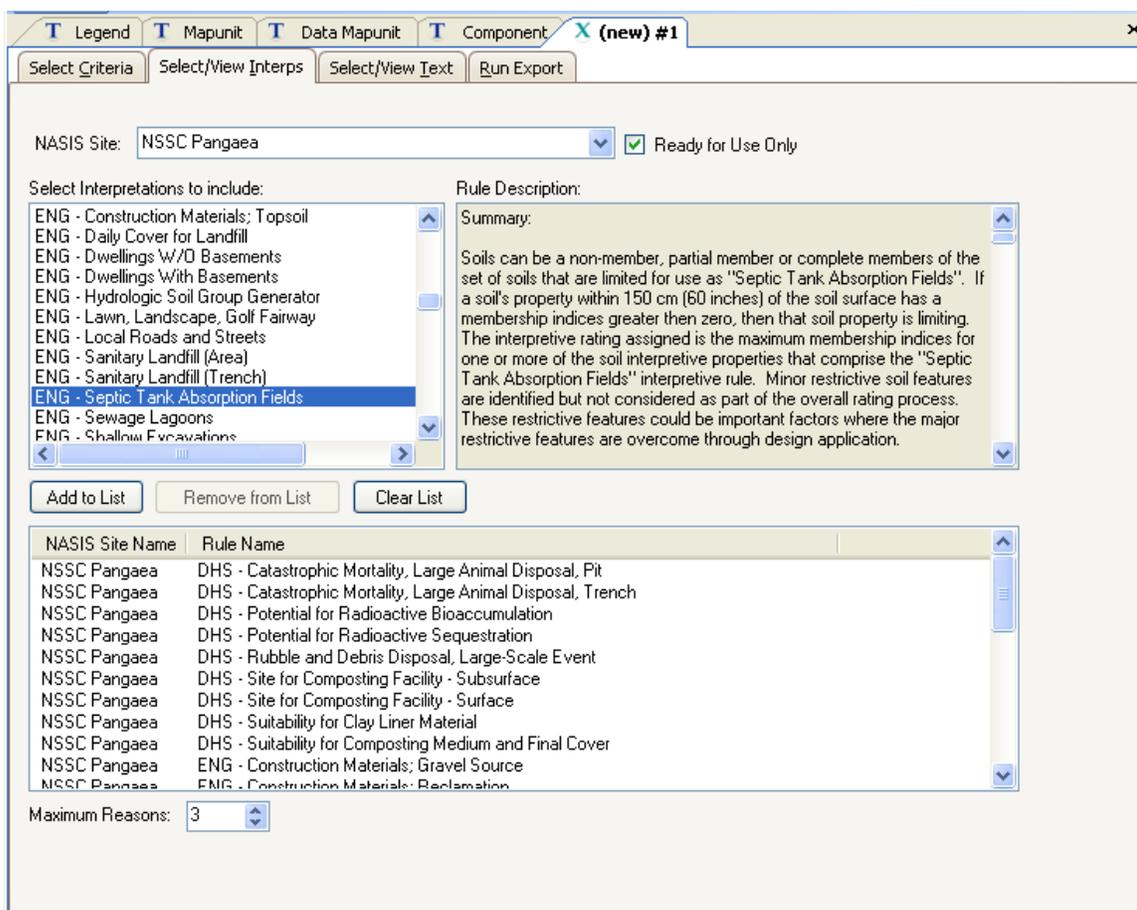
national or local databases, or any combination of these. .

For staging server exports:
    Required Interpretations:
        ·   All NSSC Pangaea **DHS** interpretations
   ·   All NSSC Pangaea **MIL** interpretations
    Strongly suggested Interpretations:
        ·   All NSSC Pangaea **ENG** interpretations
        ·   All NSSC Pangaea **URB/REC** interpretations
        ·   NSSC Pangaea **WMS** interpretations where appropriate

These suggestions are based on specific customer requests and based on needs of national users requesting consistent interpretation delivery for all soils data regardless of political boundaries.

Maximum Reasons is the maximum number of rating reasons reported for each interpretation. Maximum Reasons is set to 5 on Staging Server Exports. Maximum Reasons can be changed on SSURGO exports.
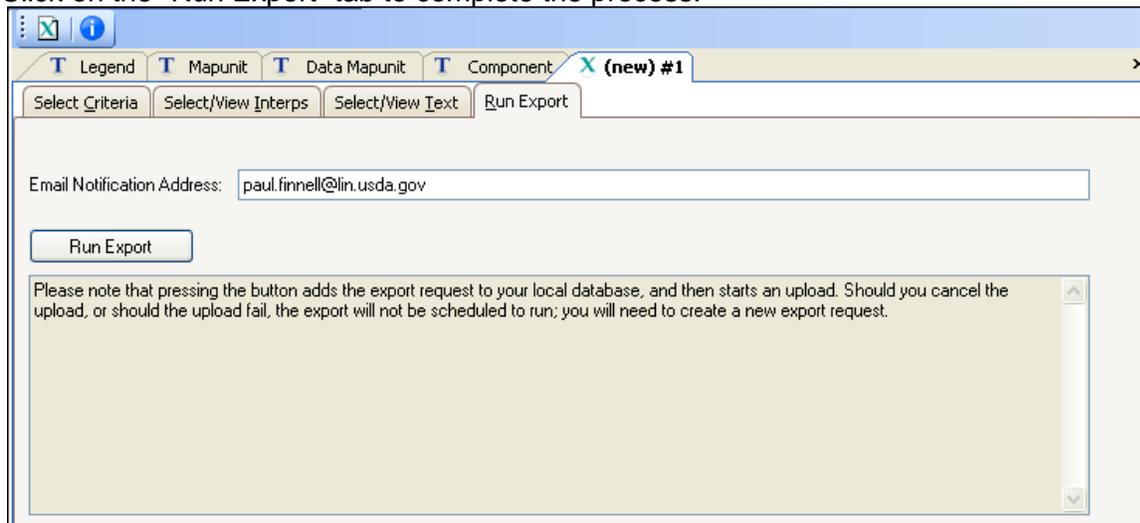
Select/View Text

Choose the Select/View Text tab to select the text fields to be exported.
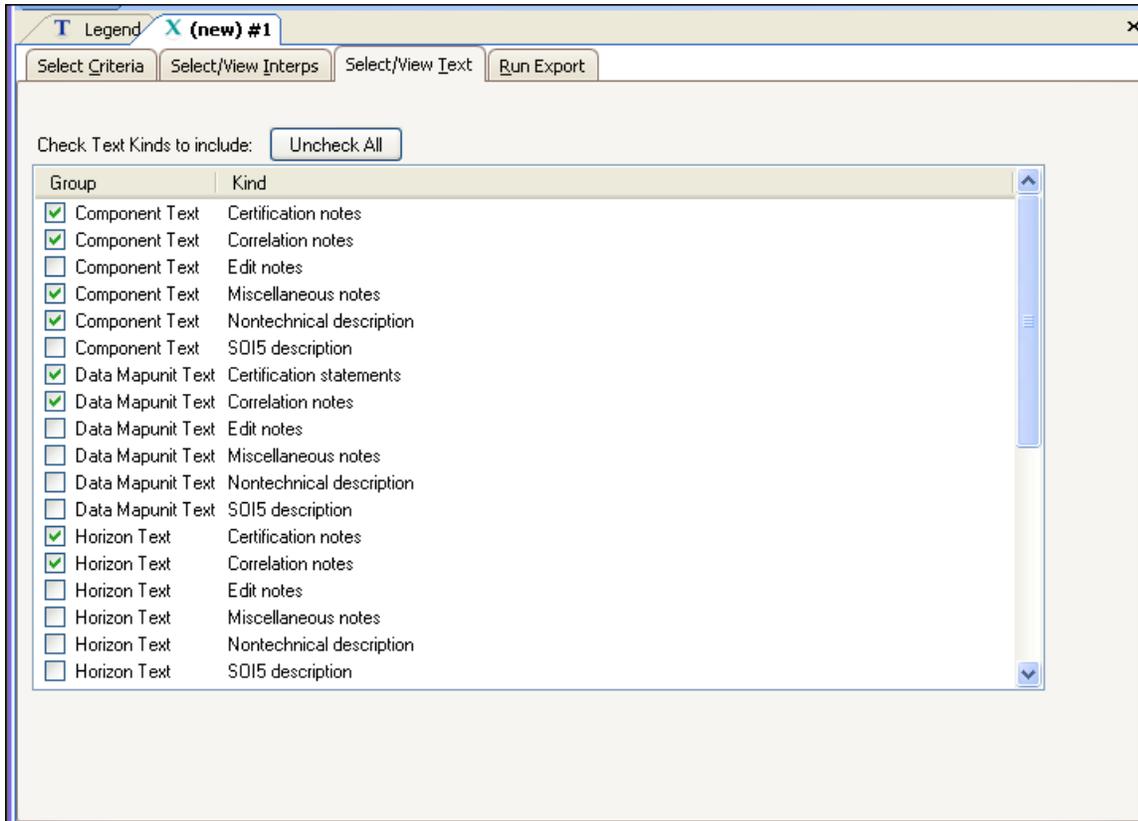
Run Export

Click on the "Run Export" tab to complete the process:

When an Export is Run

When the export is started (when the Run Export is clicked in the Export dialog) the main export process saves the export parameters to the local database. All data is then uploaded to the national server. The actual export is run from the national server. This allows the user to perform other NASIS tasks, exit NASIS, or even logoff of a NASIS session without impacting the export process. Exporting multiple surveys or a large survey should be initiated late in the day to run after hours.
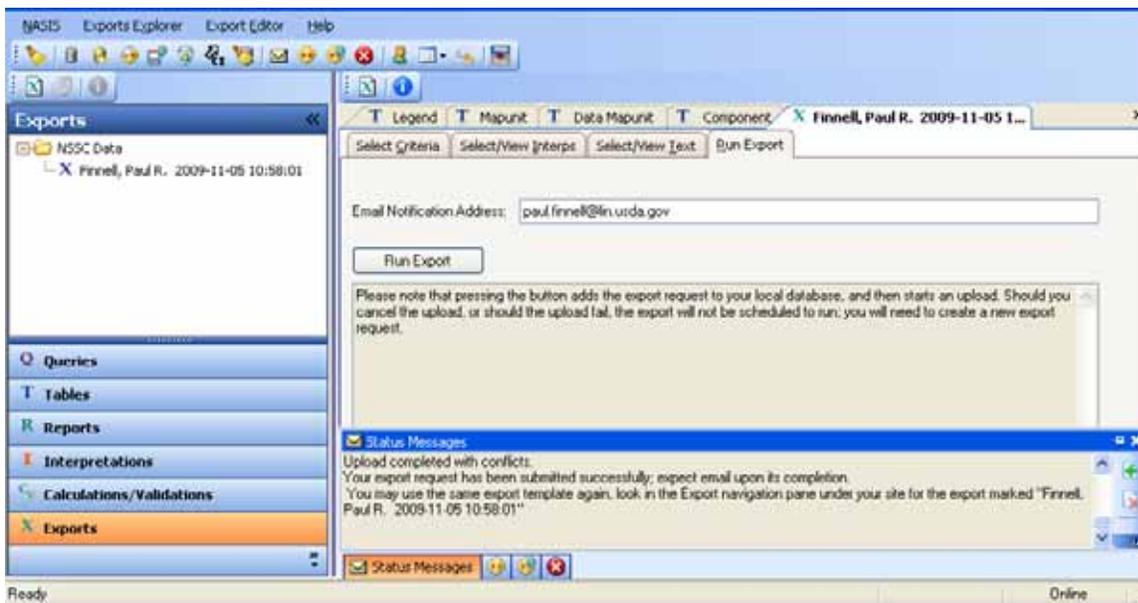
The export is saved to the Exports Explorer and becomes available for future use as shown in the image above.

Locating the NASIS Export File

The download location and filename is included in an email notifying the user that the download has completed and where the data is located. And example of the email:
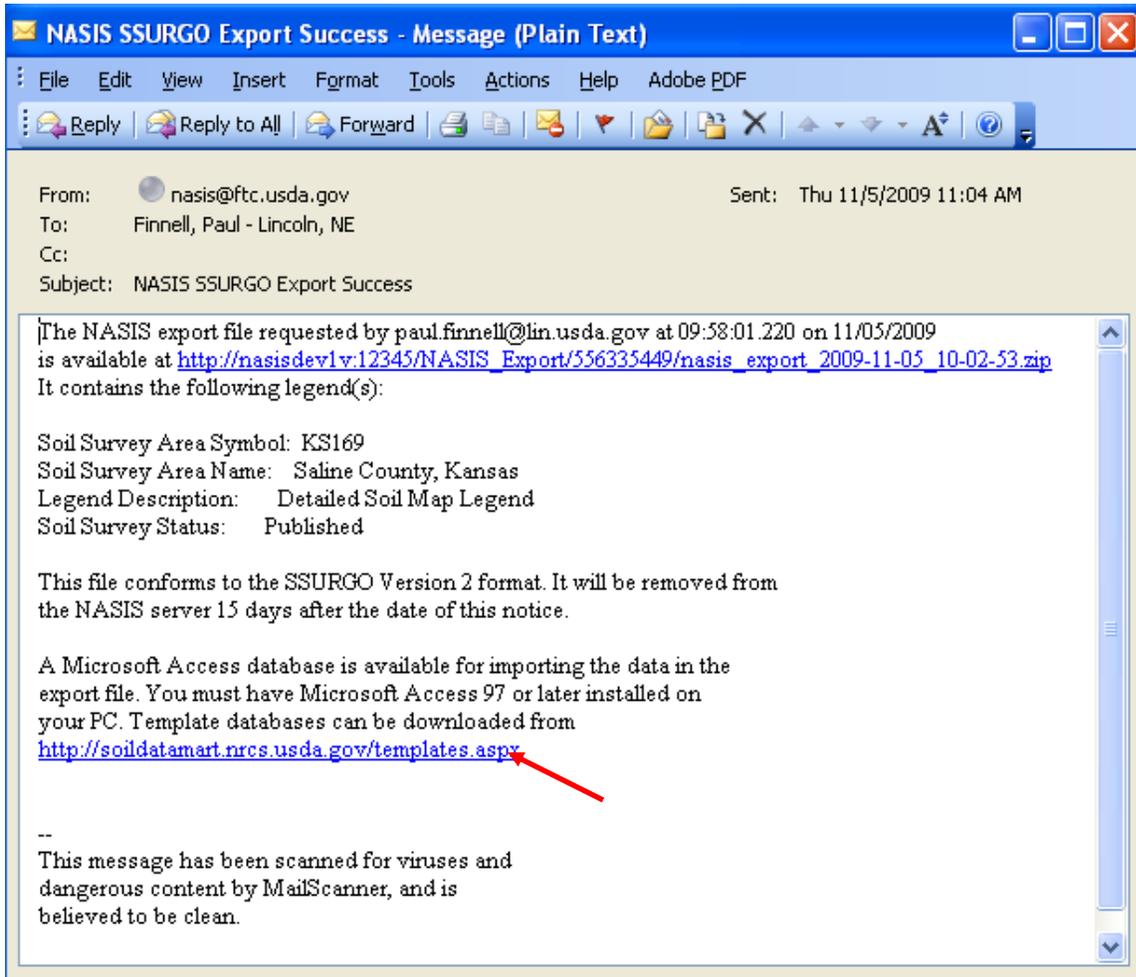
The user clicks on the hyperlink and the file can then be saved to their local computer.
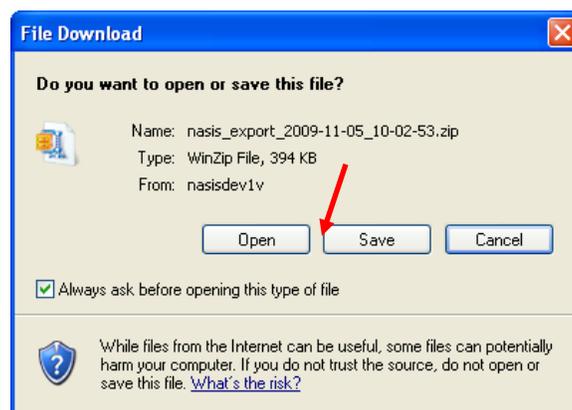
The NASIS data is written to ASCII pipe-delimited text files where there is one text file corresponding to each SSURGO format database table. These text files are in a Microsoft Access compatible format. These text files are packaged into a single file that is then compressed.

Note: Export files are large and can accumulate quickly. They are automatically deleted after 15 days. They can also be overwritten, if the same state directory and file name is used in subsequent exports.

NASIS SSURGO Export Errors

Processing errors
Errors generated during the SSURGO export process are displayed using an error message dialog and are also written to the NASIS error log file. In addition, an email message is sent to the user.

Avoiding data selection errors
Most data selection errors will not produce any processing errors if the data has been validated prior to exporting. The user must check the export to be sure it includes the expected data. Most errors are easily avoided by carefully selecting the data and understanding how the export chooses included data.

Distribution Metadata

A completed export produces distribution metadata that is stored in the same named table. The parent table is *Distribution Metadata* and describes the criteria used to export the data. Children of this table include *the Distribution Text Metadata* table, the *Distribution Legend Metadata* table that describes the soil survey areas exported and the *Distribution Interp Metadata* table that describes the interpretations generated for and included with an export.
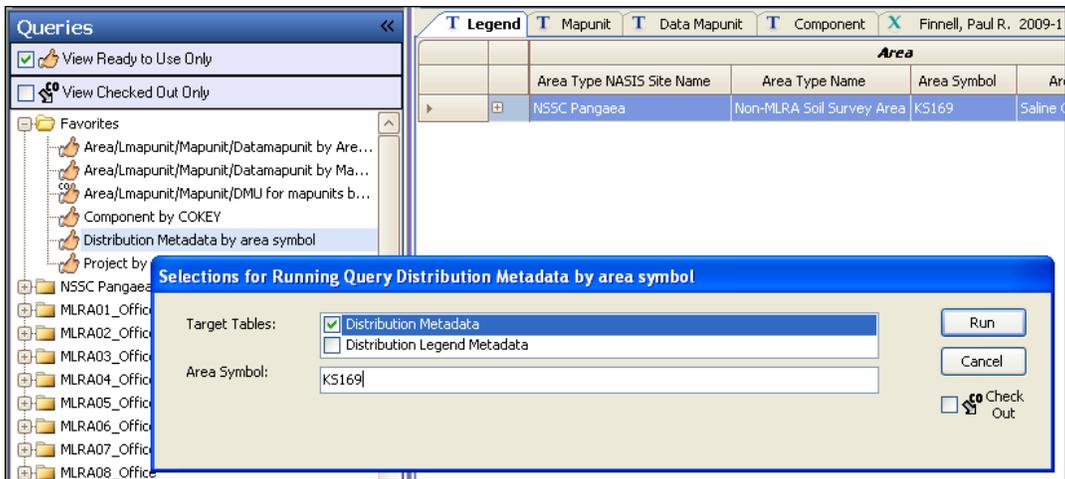
The *Distribution Legend Metadata* table has one child table, the *Distribution Mapunit Metadata* table that describes the exported map units. The exported components are described in the *Distribution Component Metadata* table that is a child of the *Distribution Mapunit Metadata* table.
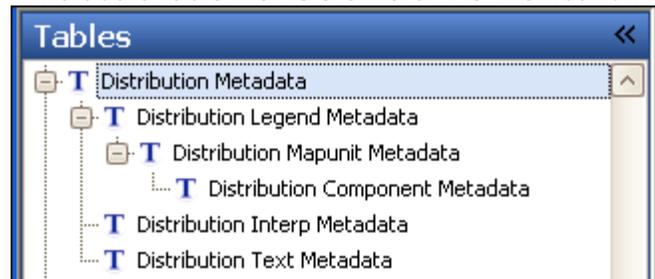
In the course of working on a soil survey, the data can be exported and viewed at different points. The exports created at different points are analogous to "snapshots" of the same view taken on different days, if the same selection criteria are used. The distribution metadata tables allow for the identification of the selection criteria used for previous exports. By loading the same data and selecting the same criteria as used in a previous export, a new snapshot of the same view can be obtained.
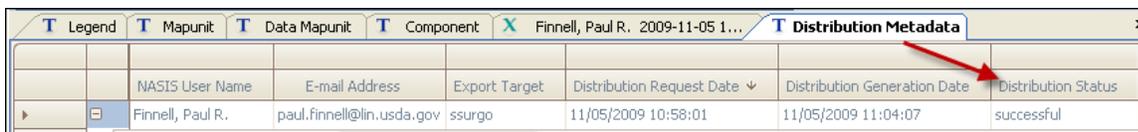
Loading distribution metadata

The export process and data can best be understood by viewing the results of a previous export. From the distribution metadata tables, the selection choices can be seen that were used for export and the type of NASIS data exported. Choose the National Query named "***Distribution Metadata by area symbol***".

The Distribution Metadata table contains a record for each time that a NASIS format export has been run for the selected legends. The columns indicate whether the selected set or mapunit status was used to select data for export. Blank columns represent status selections not used by the export.
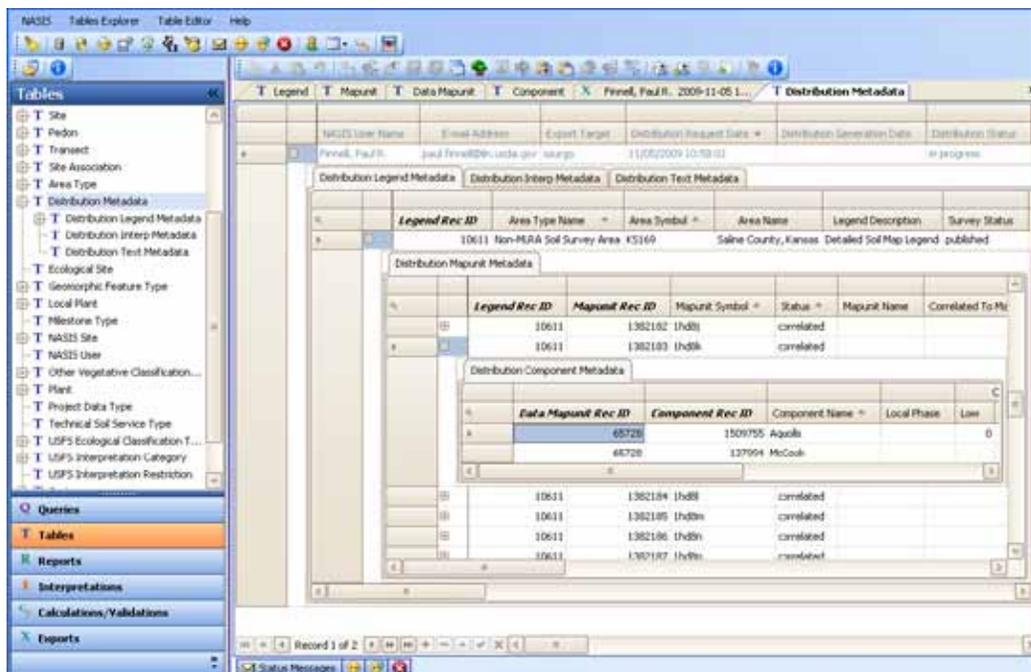
The NASIS export function writes data to these tables as the export progresses. When an export is run in NASIS the Distribution Status, in the *Distribution Metadata* table, may be "in progress", "successful", "partially successful", or "not successful". Partial success can occur if the user specifies a selected set but one or more entities in the selected set data was not available at the time of the download (for example, if a component or mapunit was deleted).

Scroll through the set and consider how this information can be used for successive exports of the same data. The distribution metadata table in the screen indicates that "selected set" was used to select mapunits for export.

Using selection criteria to choose mapunits, data mapunits and components rather than using the "selected set" makes it easier to create a new export (snapshot) based on the same criteria. When "selected set" is used, the user must check the distribution metadata child tables to identify the mapunits and components exported.

1. Click the **plus sign** to open the child table to view other criteria and identify data selected.

2. Click the **plus sign** to open the **Distribution Mapunit Metadata**.

> **Note:** The mapunit selection criteria specify the mapunits for the export.

3. Choose the **Distribution Interp Metadata** tab.

> **Note:** Interpretations are generated and the results stored if at least one interpretation is selected. The names of all interpretations used in the export are listed in the *Distribution Interp Metadata* table. Initially, the **Most Recent Rule Component When Last Updated**

column is the most recent value for all entities (rules, evaluations, properties) making up the interpretation.

Run a Previously Defined Export

Distribution Metadata is retained in the local database after the export is executed. The Distribution Metadata is presented in the Export Explorer panel as an export.   If the local Database is cleared, then the Distribution Metadata must be queried from the National Database to re-populate the Local Database. It is the Distribution Metadata that allows the user to run a previously defined export.

Loading distribution metadata
Choose the National Query named "***Distribution Metadata by area symbol***" and "Run Query Against National Database".
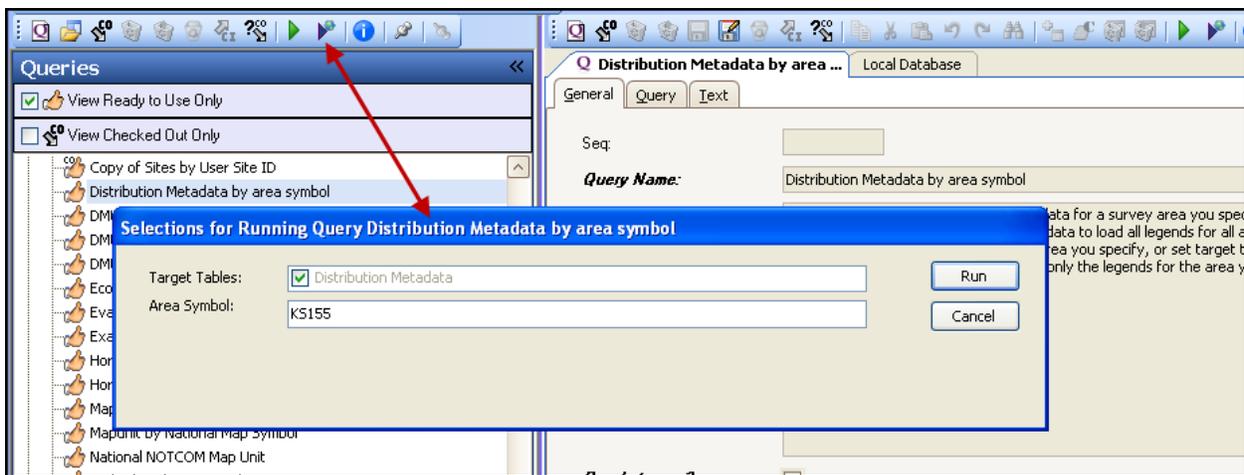
This will load all previous exports for the given survey area. Accept the results of the query.
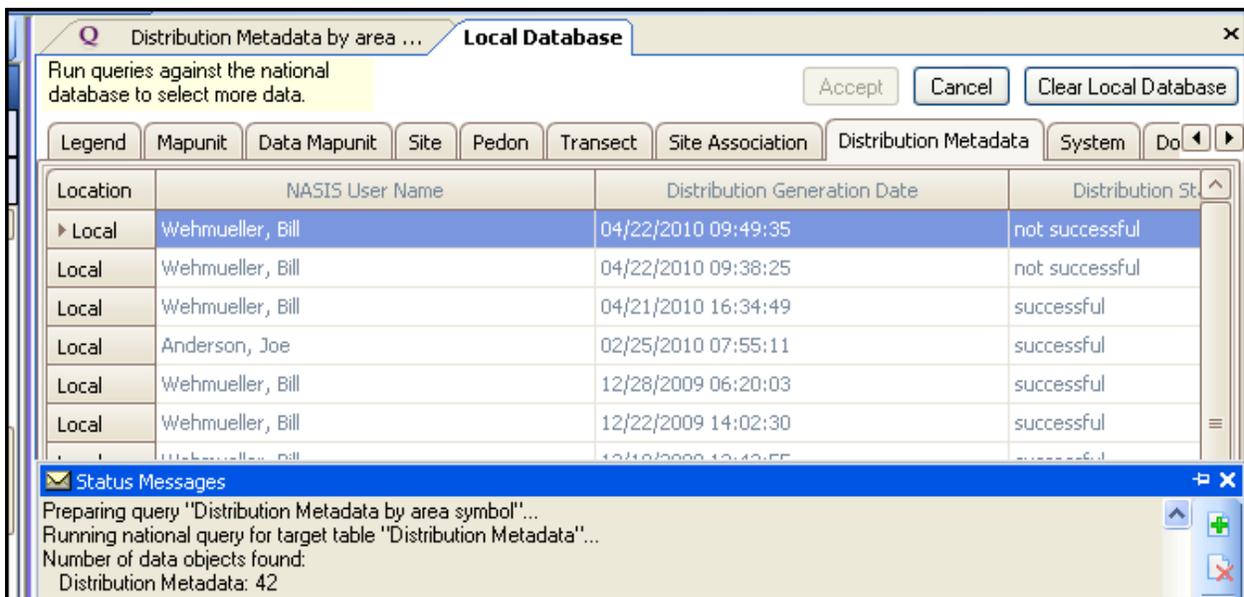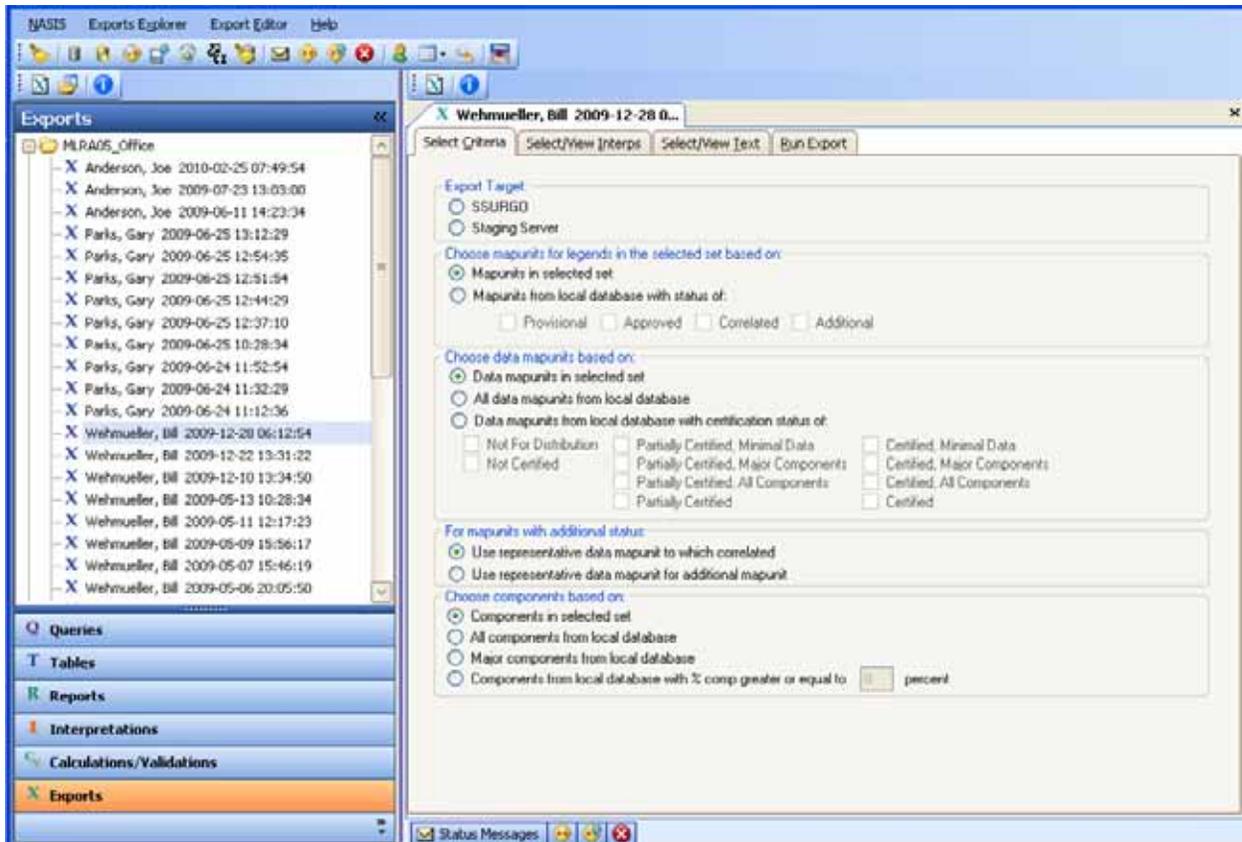
Return to the Exports Explorer panel:

The exports explorer will display the previous exports by site. Open the site of interest to locate a previous export.

Open the export of choice into the Editor Panel. Modify the export as needed. The Export Target must be selected.

The interpretations should be reviewed and modified if necessary. The "Run Export" tab is then opened and the export is activated. The export will enter a new record in the Distribution Metadata table. The record will provide the details of the new export.