Instructions for Using NASIS Export to Staging Server Pre Check Report

Introduction

When a soil survey is exported from NASIS to the Staging Server, a "Fatal Error" script is automatically run during the export. This script checks the survey area for 21 fatal errors (Table 1). If one these errors occurs, the export will fail and the user receives notification via e-mail.

The export process is time consuming, with users having to:
1. Load soil survey areas into NASIS.
2. Export soil surveys areas from NASIS to Staging Server.
3. Wait for e-mail notification indicating export success or failure.
4. Fix errors and try again.

This process is even more tedious during the annual SSURGO Refresh when over 3000 soil surveys are exported from NASIS to the Staging Server in a matter of weeks. This mass export overwhelms the system, causing significant delays in the e-mail notifications.

In an effort to make the annual SSURGO Refresh more efficient, the Database Focus Team has created a NASIS report that replicates 15 of the fatal errors (Table 1.). It doesn't include 6 fatal errors because those are related to either the:
1. <u>Formatting of the non-MLRA symbol</u>
   a. This is outside the control of the Regions and States
   b. There should be no errors in the formatting of these symbols.
2. <u>Errors in NASIS interpretations.</u>
   a. National interpretations are outside of the control of Regions and States and there should be no errors in the national interpretations.
   b. Errors may exist in Regional interpretations but use age of these can not be predicted, which means we can't figure out which Regional interpretations to check with the report.

Table 1. List of errors that are checked for when a survey area is exported from NASIS to the Staging Server. Errors highlighted in red are not included in NASIS pre-check report.

	Errors Checked For During Export	In NASIS Report	NASIS Table
1	Looks at area symbol used in legend to see if it's not a non-MLRA SSA owned by the NSSC_Pangaea NASIS Site.	yes	Legend
2	*Badly formed area symbols.*	*no*	*Area*
3	*Area symbols more than 7 characters long.*	*no*	*Area*
4	*Areas with name or acres missing.*	*no*	*Area*

	Errors Checked For During Export	In NASIS Report	NASIS Table
5	No state is populated in the Legend Area Overlap table.	yes	Legend Area Overlap
6	No county is populated in the Legend Area Overlap table that corresponds to the state. For example, if the state is Oregon, a county of Oregon must also be in the legend area overlap table.	yes	Legend Area Overlap
7	No corresponding state exists in the Legend Area Overlap table for the county that is populated. For example, if a county for Wisconsin is populated, the state of Wisconsin must also be populated.	yes	Legend Area Overlap
8	NULL project scale.	yes	Legend
9	Duplicated map unit symbols exist. This can occur if the map unit status is different.	yes	Legend Mapunit
10	NULL map unit name.	yes	Mapunit
11	Data map unit used more than once in the correlation table as representative.	yes	Correlation
12	NOTCOM map unit symbol is not capitalized.	yes	Legend Mapunit
13	NOTCOM map unit symbols not linked to the national NOTCOM map unit.	yes	Legend Mapunit
14	National NOTCOM map unit is used in the legend, but is not using a NOTCOM map unit symbol.	yes	Legend Mapunit
15	NULL component name.	yes	Component
16	Components that have data in the component month table but at least one record in the table has a NULL month.	yes	Component Month
17	Entries in the Component Text table have a component text kind of nontechnical description but have a NULL category.	yes	Component Text
18	Components that don't have a record in the Component Text table with a component text kind of nontechnical description.	yes	Component Text
19	*Interpretations don't meet SDV requirements.*	*no*	*Rule*
20	*Primary rule is not marked ready to use.*	*no*	*Rule*
21	*National interpretations use rules not owned by Pangaea.*	*no*	*Rule*

The report is designed as a pre-check that can be run in advance of exporting a soil survey. It will allow the State Soil Scientist to identify survey areas that will fail the export. It can be run on a single survey area or an entire state.

In 2019, the following three new checks were added to the report.

- Component horizons that have a duplicated RV top depth or bottom depth.
- Component horizons that have a NULL RV top depth or bottom depth.

- Instances where a survey area uses an ecological site ID with more than one unique ecological site name.

These three new checks are not part of the NASIS fatal error script but if these errors exist, they will cause the export to fail.

Report Overview and Instructions

There are two versions of the report. The outputs are identical. The only differences are the report locations and the parameters that can be selected prior to running the report:

1) <u>Web based report</u>
   a. Can be run via URL.
   b. Only one parameter, which means report makes more assumptions about what survey areas should be include.
   c. Slim chance data could be excluded
   d. Chance that undesirable data may be included.
   e. Can only be run on an entire state.

2) <u>NASIS based report</u>
   a. Must run from with in NASIS
   b. Has four parameters, which gives the user more control over the output.
   c. Can run on a single soil survey area or entire state.

Web Based Version of the Report

This version can be run outside of NASIS and it only has one parameter as an option. It makes more assumptions than the NASIS version, but it should work for most of the country. There is a chance a survey area could accidentally be excluded or extra surveys errors could be included in the report output.

<u>Name</u>
- NASIS Export To Staging Server: Fatal Error Pre-Check

<u>Location</u>
- On web based [master list of NASIS reports](), under State Soil Scientist Reports

State Soil Scientist Reports

NASIS Export To Staging Server - Fatal Error Pre-Check
When a soil survey is exported from NASIS to the Staging Server
If one these errors is identified, the export will fail, with the user
for 15 of the fatal errors. It doesn't include 6 fatal errors that are
control. The report is designed to be run in advance of going thro
export procedures.

- Runs on entire state
- Includes both major and minor components
- Includes approved, provisional, and correlated map units in
- Excludes additional map units
- Only includes representative DMUs
- Only includes legends with a geographic applicability of cur

How to Use Web Based Report

1) Click on the report to run (direct link to report here) and choose your state from the drop down list.

2) Report will run against the national NASIS database and all surveys for the selected state will be included in the output. The upper part of the report output includes the list of fatal errors being checked and information about how the report works.

3) The survey areas are listed on the left.

Area Symbol	Area Name	Survey Status	Geographic Suitability
OR003	Benton County, Oregon	Published	current wherever mapped
OR007	Clatsop County, Oregon	Published	current wherever mapped
OR009	Columbia County, Oregon	Published	current wherever mapped

3

4) Each survey area is evaluated in the Staging Server Export PASS/FAIL Check Column.

Area Symbol	Area Name	Survey Status	Geographic Suitability	STAGING SERVER EXPORT PASS/FAIL CHECK	
OR003	Benton County, Oregon	Published	current wherever mapped	PASS	
OR007	Clatsop County, Oregon	Published	current wherever mapped	FAIL	
OR009	Columbia County, Oregon	Published	current wherever mapped	FAIL	
OR011	Coos County, Oregon	Published	current wherever mapped	FAIL	
OR015	Curry County, Oregon	Published	current wherever mapped	PASS	

o If you see **PASS**, then that survey area passed all 15 fatal pre-checks. The survey should successfully export, although you could still run into problems if there are errors related to local regional office interpretations.
o If you see FAIL, then your survey failed at least one of the 15 checks and it will not successfully pass the export process.
    ▪ **IMPORTANT NOTE**, the URL report includes minor components, provisional map units, and approved map units. These map units and minor

components may not be part of your intended export and they could cause false errors.

5) The 18 fatal errors are checked on each survey and they are numbered one through 18 in the second row. These numbers correspond to the list containing fatal error check details at the top of the report.

    a. **IMPORTANT NOTE:** Only errors are displayed. Empty cells mean there is no error.

Area Symbol Not Valid	State Missing	State Missing County	County Missing State	Project Scale NULL	MUSYM Duplicated	DMU Duplicated	Mapunit Name NULL	NOTCOM Error 1	NOTCOM Error 2	NOTCOM Error 3	Component Name NULL	Component Month NULL	Brief Soil Description Error 1	Brief Soil Description Error 2	Horizon Depth Duplicated	Horizon Depth NULL	ESD ID used with >1 ESD
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
																ERROR: Click For Details	

6) If you see a red error, it is related to the legend. You will need to load that legend in NASIS and correct the error.

Area Symbol Not Valid	State Missing	State Missing County	County Missing State	Project Scale NULL	MUSYM Duplicated	D
1	2	3	4	5	6	
ERROR: Must Use NSSC Pangaea Owned Non-MLRA SSA	ERROR: No State or Territory in Legend Area Overlap Table			ERROR: Missing Project Scale		
ERROR: Must Use NSSC Pangaea Owned Non-MLRA SSA	ERROR: No State or Territory in Legend Area Overlap Table			ERROR: Missing Project Scale	ERROR: Click For Details	

7) If you see **ERROR: Click For Details**, it is related to map units or data map units. The error can be clicked on and a sub report will open that displays the offending data.

MUSYM Duplicated	DMU Duplicated	Mapu Nam NUL
6	7	8
	ERROR: Click For Details	

Click Link and sub report opens.

DMU Records Used More Than Once As Repi

To copy into Excel: select all (Ctrl+A) then copy (Ctrl+C).

AREASYMBOL	Area_Name	Duplicated_DMU_record_ID
*149A	149A Work Site	446856
*149A	149A Work Site	455308
*149A	149A Work Site	497323

8) Some sub reports will contain a comma delimited list of component record ids that can be used to quickly load the offended components into your selected set. They also reference the required query needed to load the data.

Below are the component record ids, seperated by commas. You can copy and paste them into the MLRA01_Portland query "Area/Legend/Mapunit/DMU by COIID" t

(72259, 72353, 72359, 72626, 72614, 72478, 72610, 72631, 72262, 72313, 72322, 72267, 72242, 72247, 72340, 72346, 72349, 72355, 72363, 72433, 72436, 7 72491, 72376, 72382, 1526474, 1526498, 72300, 72306, 72661, 72666, 72423, 72430, 72442, 72437, 72223, 72316, 72268, 72269, 72413, 1535025, 72688, 72 72510, 72604, 72607, 72284, 72294, 72286, 72405, 72580, 72504, 72686, 1535023, 72234, 72375, 72381, 72387, 1526472, 1526496, 72522, 72529, 72541, 72 72243, 72248, 72339, 72347, 72350, 72354, 72362, 72635, 72329, 72334, 72371, 72445, 72508, 72253, 72427, 72674, 72485, 72492, 72499, 72468, 72480, 72 72357, 72222, 72318, 72366, 72361, 72352, 72678, 72497, 72630, 72324, 72501, 72235, 72296, 72302, 72308, 72410, 72416, 72451, 72456, 72461, 72466, 72 72520, 72527, 72540, 72471, 72483, 72490, 72548, 72552, 72562, 72566, 72639, 72645, 72664, 72670, 72660, 72675, 72403, 72681, 72680, 72682, 72292, 72 72418, 72513, 72251, 72241, 72246, 72257, 72369, 72229, 72422, 72429, 72435, 72441, 72368, 72327, 72332, 72337, 72344, 72637, 72643, 72649, 72653, 72 72372, 72446, 72525, 72532, 1526510, 72609, 72632, 72278, 72283, 72617, 72605, 72608, 72512, 72408, 72297, 72303, 72309, 72374, 72380, 72386, 152647 72458, 72463, 72412, 72274, 72535, 1526517, 72638, 72644, 72650, 72654, 72542, 72684, 72523, 72530, 72299, 72305, 72311, 72377, 72383, 1526475, 1526 72593, 72536, 1526509, 1526508, 72524, 72531, 72425, 72432, 72444, 72439, 72402, 72275, 72521, 72528, 72543, 72310, 72547, 72551, 72561, 72565, 7229 72578, 72569, 72573, 72591, 72596, 72228, 72424, 72431, 72443, 72438, 72317, 72224, 72270, 72271, 72282, 72517, 72279, 72599, 72602, 72634, 72622, 72 72564, 72343, 72449, 72454, 72459, 72464, 72469, 72481, 72488, 72475, 72495, 1526518, 72659, 72470, 72482, 72489, 72328, 72333, 72338, 72450, 72455, 72378, 72384, 1526476, 1526500, 72358, 72258, 72612, 72629, 72370, 72319, 72325, 72254, 72514, 72293, 72582, 72505)

NASIS Based Version of the Report

This version can be run from within NASIS. While it requires you to log into NASIS, it gives the user more control of the output of data. It allows users to select several parameters that can assist with filtering the resultant data. It can be run on the national or local database, although it's easier to run it on the national.
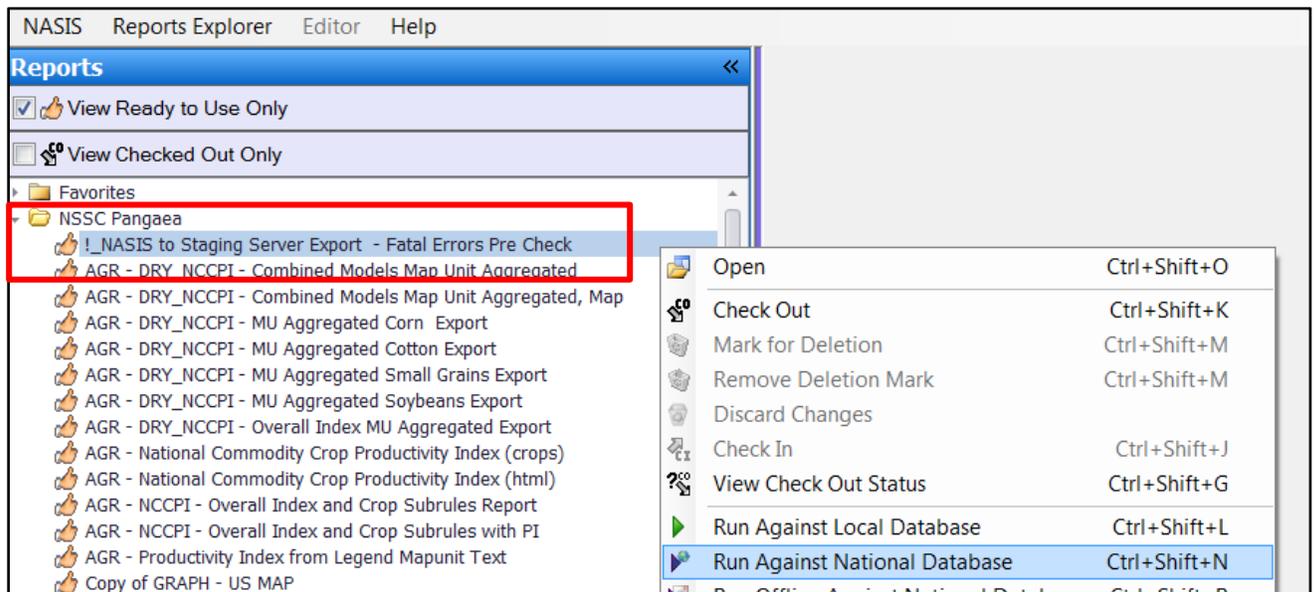
Name
- !_NASIS Export To Staging Server: Fatal Error Pre-Check

Location
- NSSC_Pangaea folder

How to Use NASIS version of the report

1) Open NASIS and refresh your local database.

2) Go to **Reports** > Open the **NSSC_Pangaea** folder > Right Click on **!_NASIS to Staging Server Export - Fatal Errors Pre Check** and choose **Run Against National Database**
   a. It's the first report in the list.

3) Choose the appropriate parameter's and click run.

Selections for Running Report !_NASIS to Staging Server Export - Fatal Errors Pre Check

Survey Symbol (wildcard use %
e.g. OR%):   OR%

Select one or more map unit status   ☐ additional
(0 or more):   ☐ approved
                                         ☑ correlated

Select one or more soil survey   ☑ extensive revision
status (0 or more):   ☑ initial
                                         ☐ nonproject
                                         ☐ out-of-date
                                         ☑ published

Select one or more geographic   ☑ current for part of area
applicability (0 or more):   ☑ current wherever mapped

Description: THIS REPORT WILL ASSIST WITH THE SSURGO EXPORT
                 PROCESS.

                 When a soil survey is exported from NASIS to the Staging Server, a

Report: 1 'ER area_sym ELEMENT areasymbol PROM
                 2 'ER mu_status ELEMENT lmapunit.musta
                 3 'ER survey_status ELEMENT legend.ssa
                 4 'ER major ELEMENT component.majcompf
                 5 'ER legend_suit_use ELEMENT legend.l
                 6

Run
Cancel