NRCS HEL Determination Tool

Troubleshooting Guide

Last Updated: December 20th, 2019

Troubleshooting the NRCS HEL Tool

This document contains a list of known issues and fixes or workarounds for the NRCS HEL Tool.

ArcMap Issues

1. The HEL tool generates an error message of, "No CLU fields selected," even though it looks like CLU fields are selected in the ArcMap view.

   Tool Version: All
   ArcMap Version: 10.5 (plus Customer Service Toolkit is installed)
   Reason: The "Save" disk icon is modified by the Toolkit installation to clear selected features when clicked but it doesn't refresh the view. The result is that it appears the CLU fields are still selected.
   Workaround: Select the desired CLU fields again prior to running to the tool. If you clicked the Save disk icon in ArcMap after selecting fields, you may need to re-select your fields.

2. The HEL Tool toolbar appears blank in ArcMap after installing the toolbar Add-In.

   Tool Version: All
   Theory of Cause: Errors in the user profile, file synchronization, or folder redirection/offline files. Root cause may be related to permissions settings on the HOME folder, or for the Active Directory groups which participate in access to the HOME folder, on a given server.
   Workaround: Use the ArcToolbox file provided in *C:\HEL* to open and run the tool. After adding the toolbox to a template, right-click the ArcToolbox heading and select *Save To* → *Default* so that it appears across multiple MXD projects without re-adding every time.

3. A steep field with constructed terraces and PHEL soils that is expected to be HEL is coming out as NHEL.

   Tool Version: All
   Workaround: None. The tool is not intended for use in this scenario.

4. The tool generates a message of: "ERROR 000871: Output raster: Unable to delete the output C:\HEL\HEL.mdb\Lidar_HEL_Summary. ERROR 000581: Invalid Parameters."

   Tool Version: All
   Fix: Perform the following steps –
   a. Close Access, if it is open.
   b. In ArcMap, make sure Overwrite Outputs setting is on (*Geoprocessing* menu → *Geoprocessing Options* → *Overwrite the outputs of geoprocessing operations'* is checked → OK.)
   c. In ArcMap, open the Catalog window.
   d. In the Catalog window, navigate to C:\HEL.
      i. Note: You may need to connect to folder to access this location first.

e. In the Catalog window, double-click the C:\HEL\HEL.mdb file to expand it.
f. Select, right-click, and delete the *Lidar_HEL_Summary* item in the database.
g. The results should appear as the screenshot to the right, where no *Lidar_ HEL_Summary* raster layer is present.
h. Close the Catalog window.
i. Try the tool again.
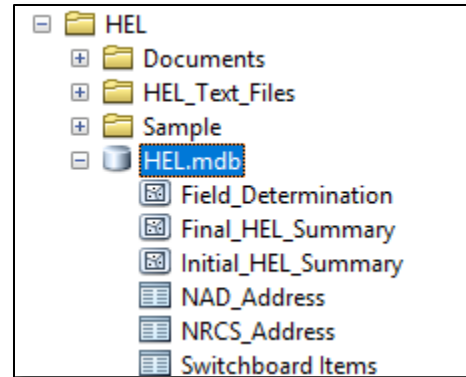
5. The tool generates a message of "ERROR 999999: Error executing function. The table was not found. [FlowLen_Flow1] The table was not found. [fras_aux_FlowLen_Flow1] No spatial reference exists. ERROR 010029: Unable to create the raster C:\HEL\scratch.gdb \FlowLen_Flow1. ERROR 010067: Error in executing grid expression."

Tool Version: All

Reason: Unknown. Error 999999 is a catch all error typically indicating a problem writing output files.

Fix: Extra files may exist in the HEL.mdb or scratch.gdb locations that are not deleting properly during previous executions. Explore the HEL.mdb and the scratch.gdb files in the Catalog window (see issue #4 above, for example) and delete all raster items found. Note: Raster items will appear as grid icons in the Catalog window.

Additional Fix: If all extra rasters are deleted, per the Fix above, then reboot the computer. This clears any temp raster files in memory that may be locked up.

Access Issues

1. The Access database opens with a security/trusted content warning, but the HEL Tool dashboard is not visible even if you Enable Content. Also, limited choices are available on the Access ribbon and File menu (such as just Home, Print, and Exit).

Tool Version: All, however, this typically occurs on versions of Windows 10 that pre-date version 1809 (visible under Cortana/Search → "About Your PC") or predates Office 365. Lastly, it can also be due to problems in the user's Windows profile on the computer.

Workaround 1: Check your Windows 10 version (About Your PC). If below 1809, request assistance from your IT staff to update Windows 10 on your computer.

Workaround 2: Ask IT to create a new user profile for you. Work with IT to backup existing files, if any, under your existing user profile that may need to be transferred to your new profile.

2. An MUYSM box appears when activating the soil reports on the HEL Tool dashboard in Access.

Tool Version: All

Reason: The "MUSYM" attribute field name in the feature class for the frozen soil data in ArcGIS was not created in all capital letters. It may be Musym, musym, etc…

Fix: The state's HEL Tool Administrator needs to correct the source frozen soil layer so that the MUSYM field is named in all capital letters.

3. The client address information is not populating in the Client Letter in Access.
   Tool Version: 2.0.1 or lower
   Fix: Update to the HEL Tool to version 2.0.2 or higher (released October 28th, 2019).

4. The information entered on the 026e Form page in Access is not all transferring to the 026e PDF output form.
   Tool Version: All
   Workaround: Click the save pencil on the left side of the 026e form in Access or click the save icon in the "Records" section of the Home ribbon in Access after updating contents of the form (Name, Address, Request Date, etc…) prior to clicking the 026e form's functions to save and create the PDF file.

5. The client letter has #ERROR present in several places where tract and address information are supposed to populate automatically.
   Tool Version: All
   Workaround: You must first populate and create the 026e form using the Access dashboard before generating the letter.