ARCGIS ICAT SET UP INSTRUCTIONS

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ENVIRONMENT AGENCY 10.09.2025

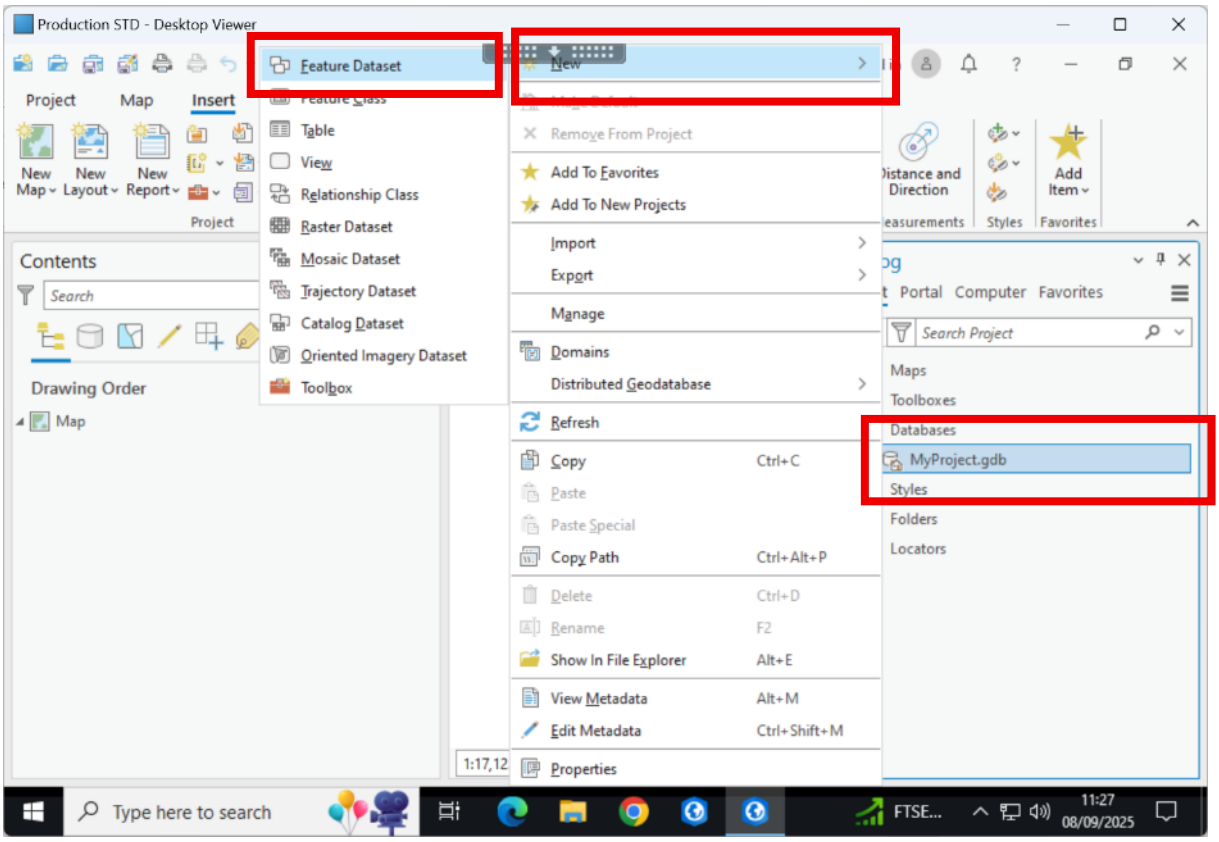
Contents

Introduction

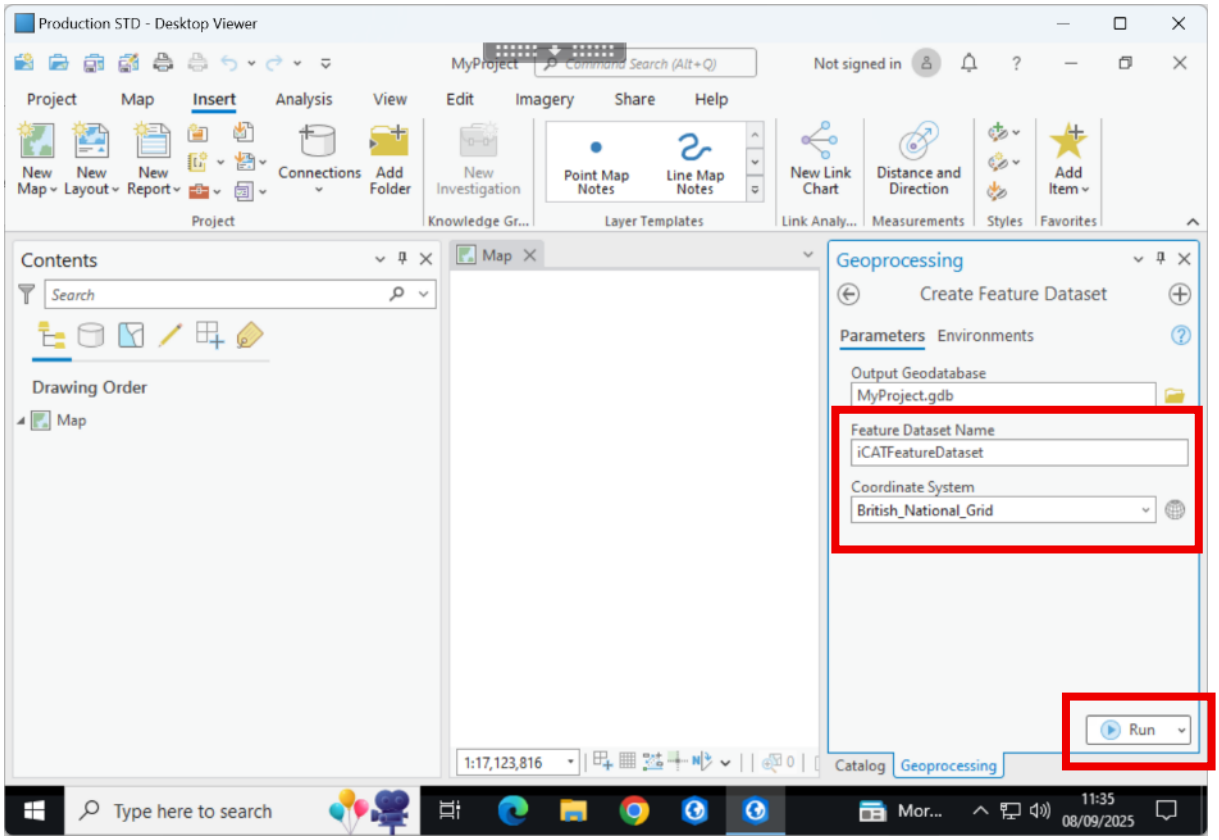
For use with iCAT, this document highlights the steps required to create an attribute table in ArcPro, digitise features and how to export the attribute table. These steps form a template for individual project specific data to be added.

How to Create Attribute Tables in ArcPro

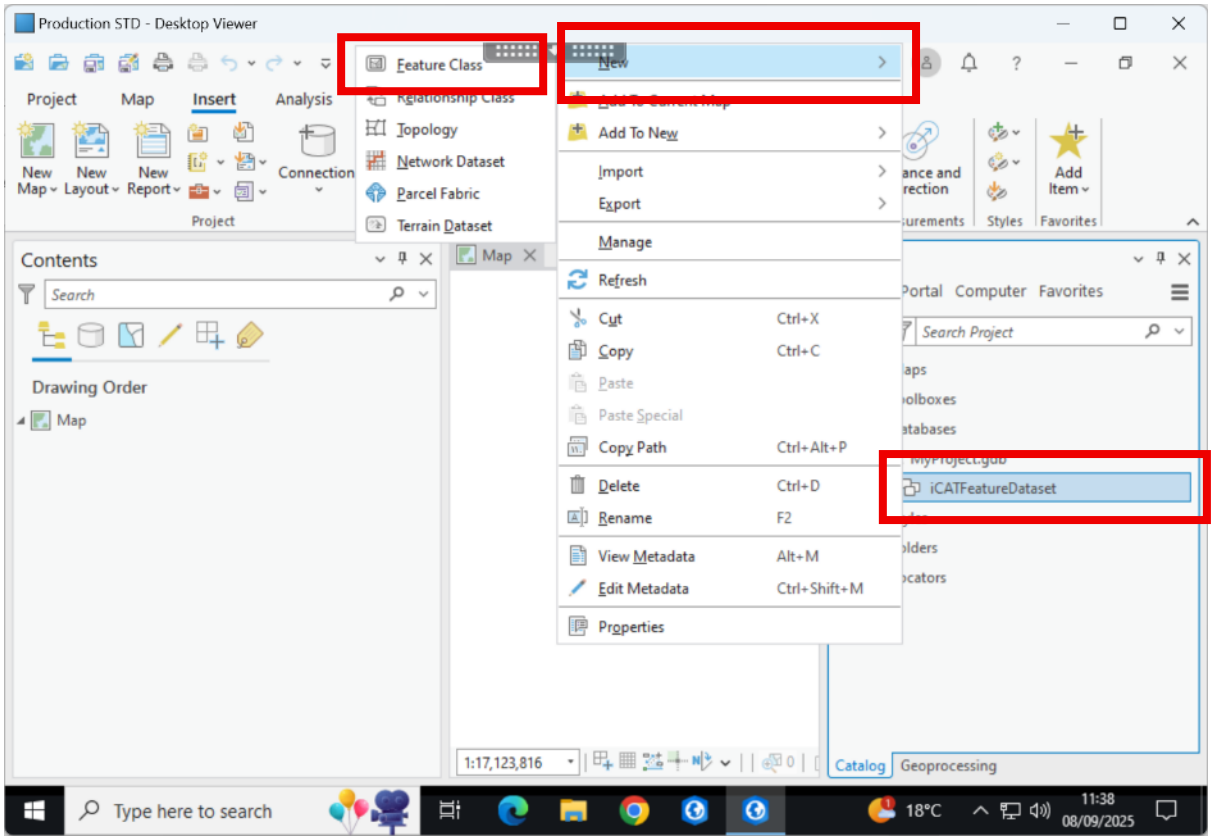
1. Open ArcGIS (ArcPro is used for this example)
2. A geodatabase workspace will be automatically created in ArcPro titled ‘MyProject’ in the Catalog pane
    a. You can rename this geodatabase with a name suitable for your project e.g. ‘[catchment name]’ / ‘[project name]’ and click ‘save’
3. Create a feature dataset by right clicking on your new geodatabase .gdb, navigating to ‘New’ and clicking on ‘Feature Dataset’



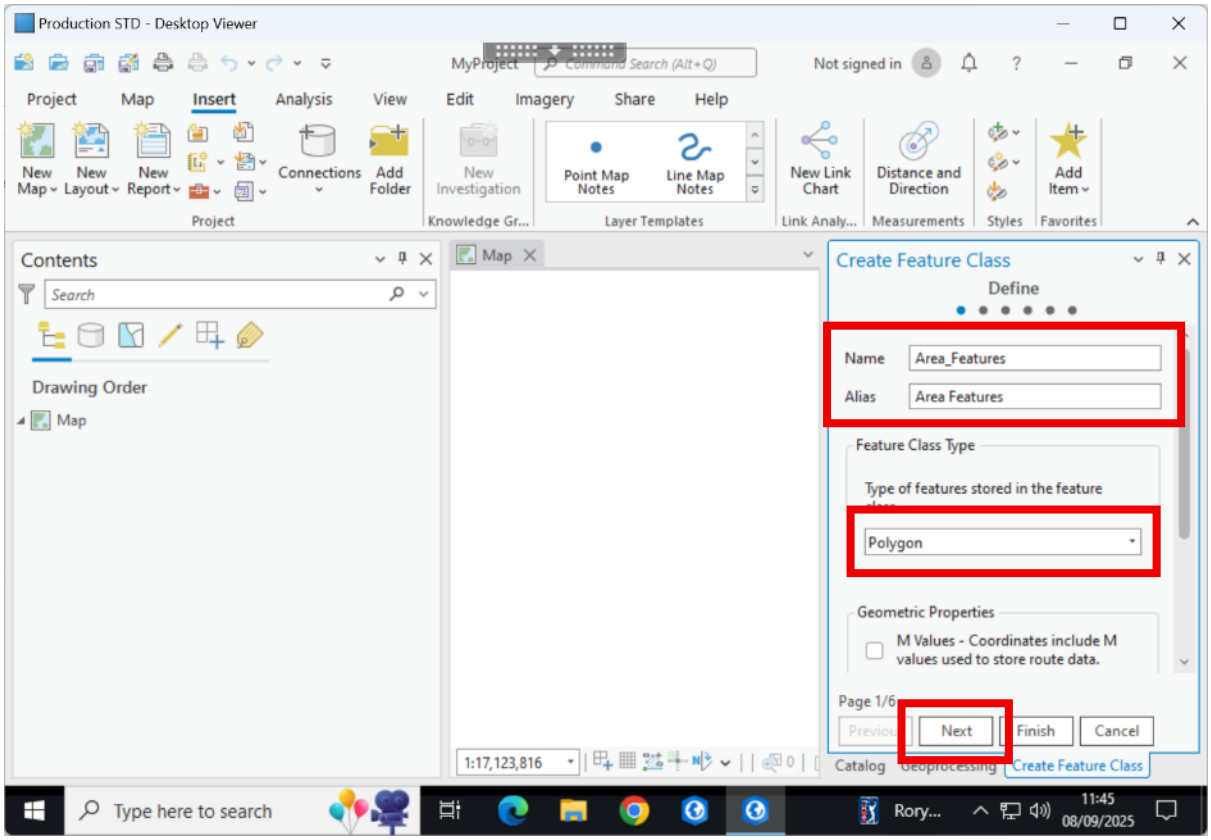
4. Name you feature dataset in the ‘Geoprocessing’ pane which appears, and choose your co-ordinate system based on your project need, and click ‘Run’ to create



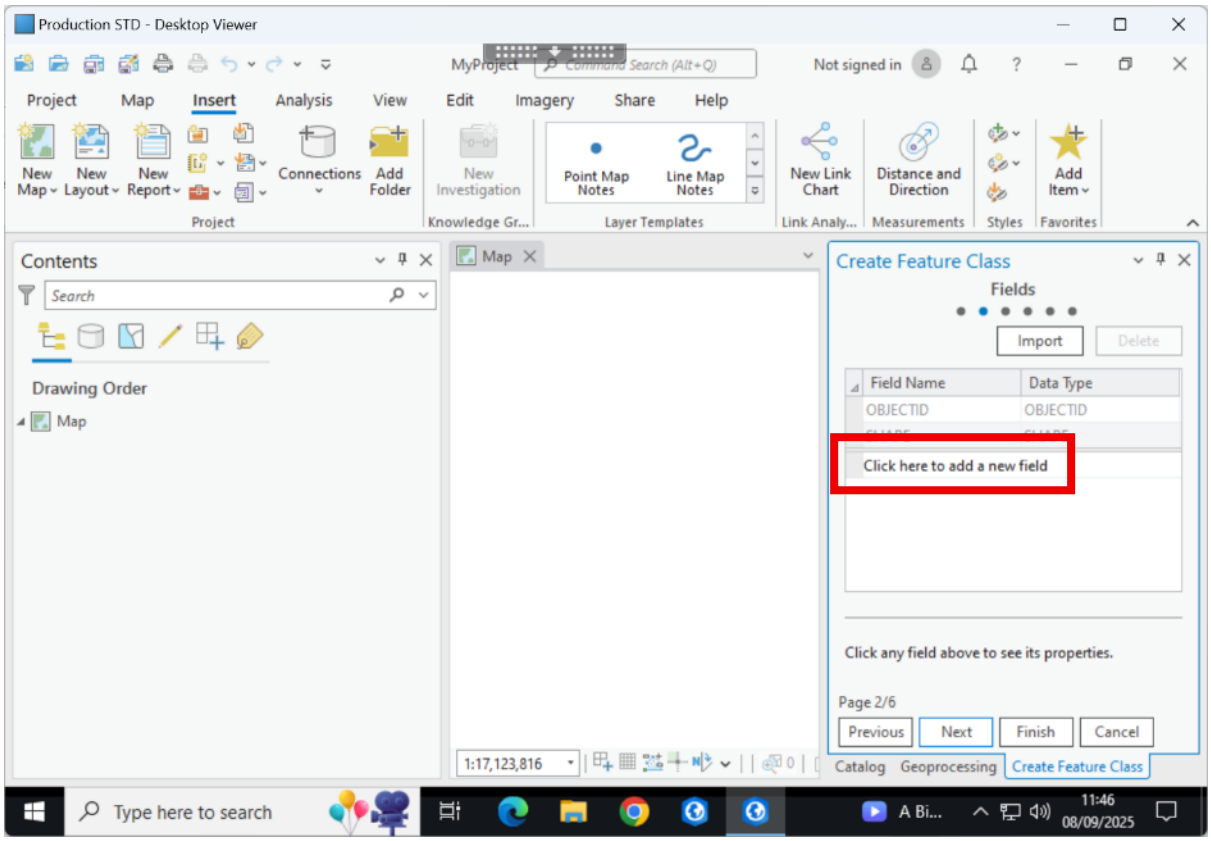
5. Go back to the ‘Catalog’ tab and right click on your newly created feature dataset. Go to ‘New’ and select ‘Feature Class’ from the drop down menu.



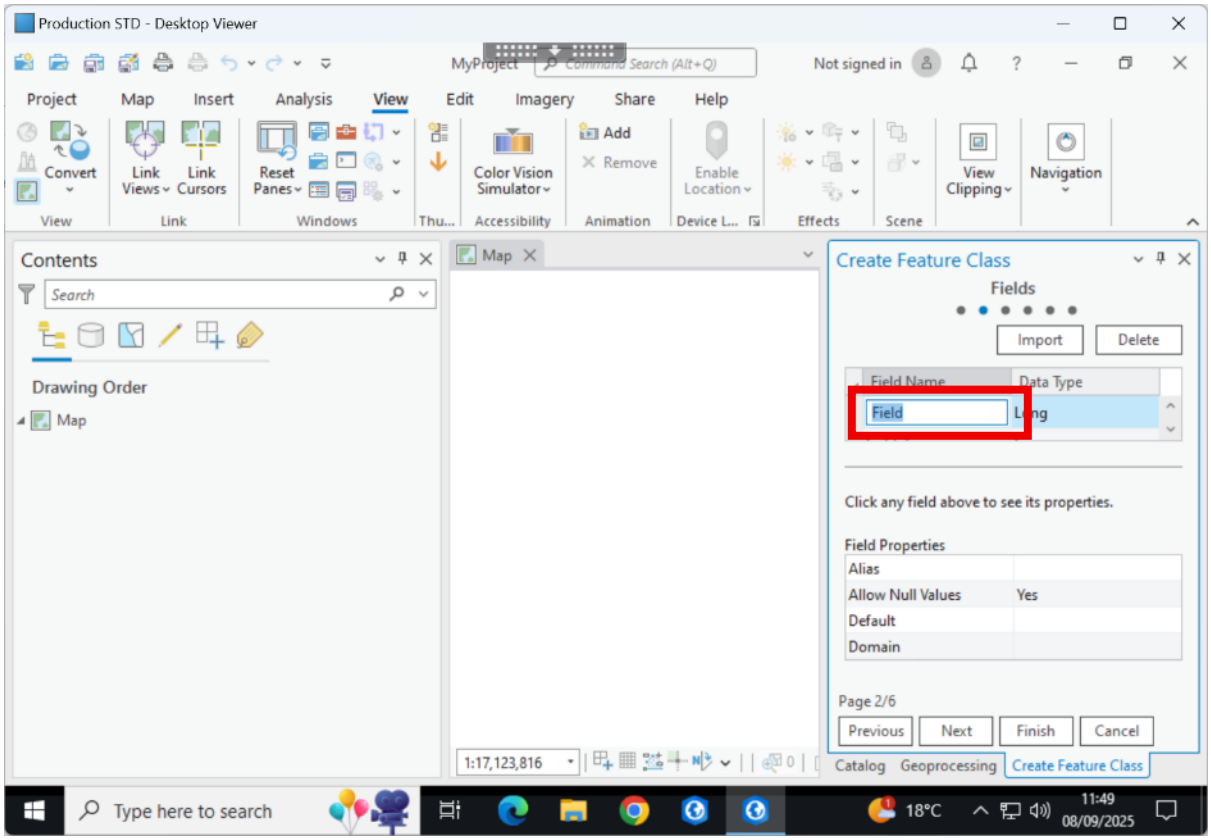
6. You now need to create three feature classes for your area, line and point features
    a. Area
        i. Name the first ‘Area_Features’ with the alias ‘Area Features’ or similar
        ii. Make sure the ‘Feature Class Type’ drop down is shown as ‘Polygon’



iii. Click ‘next’ and click on ‘Click here to add new field’

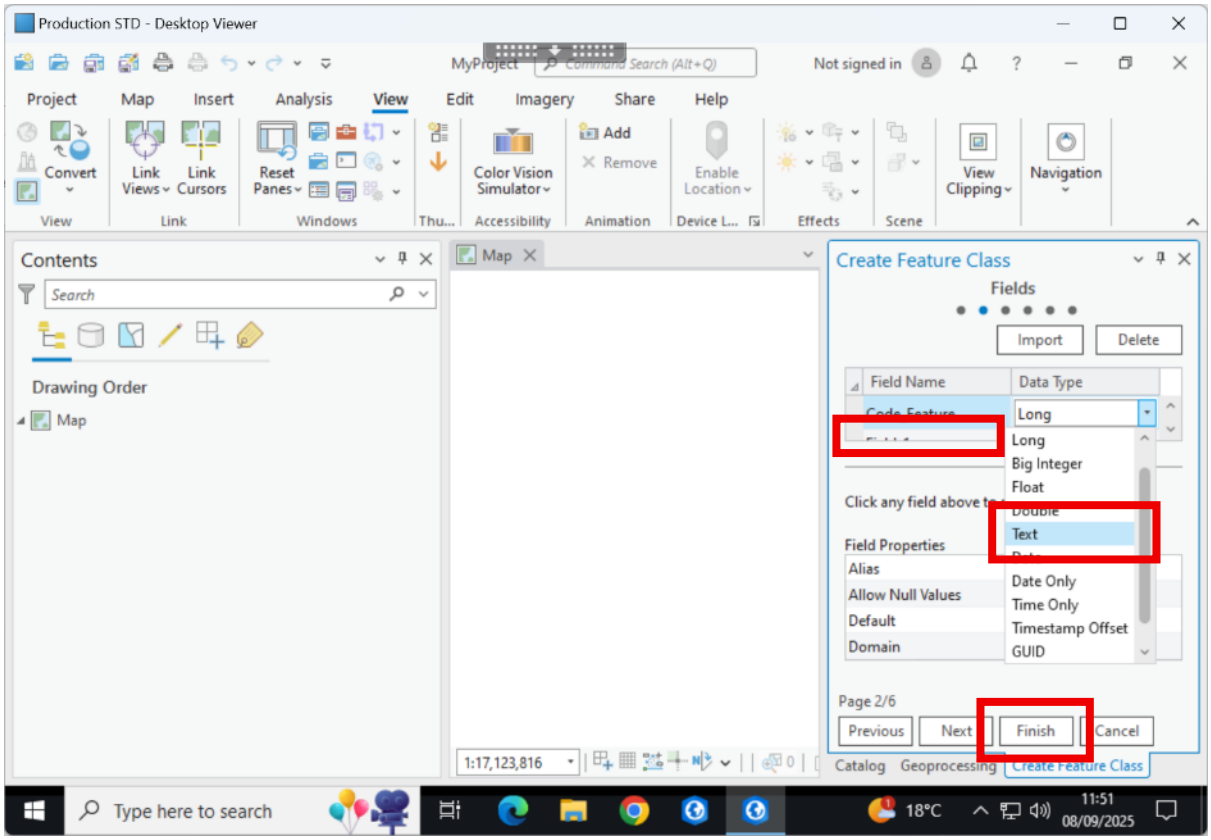


The following pane will appear



iv. Rename ‘field’ which is highlighted to ‘Code_Feature’. This is where you will assign the codes to each feature digitised.

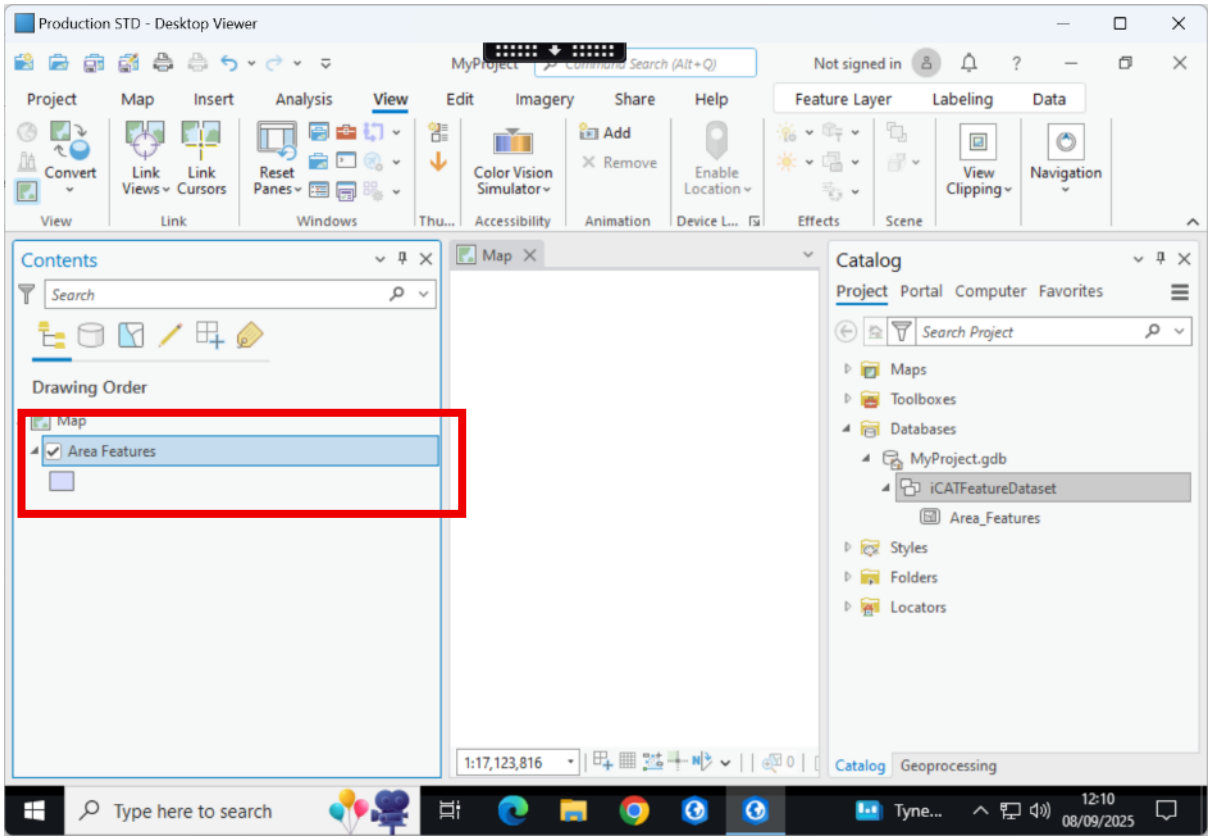
v. Change the data type to ‘text’ from the drop down list



vi. Add a new field by clicking again on ‘Click here to add new field’, name this new field ‘BNG_Existing_Habitat’ with a ‘text’ data type.

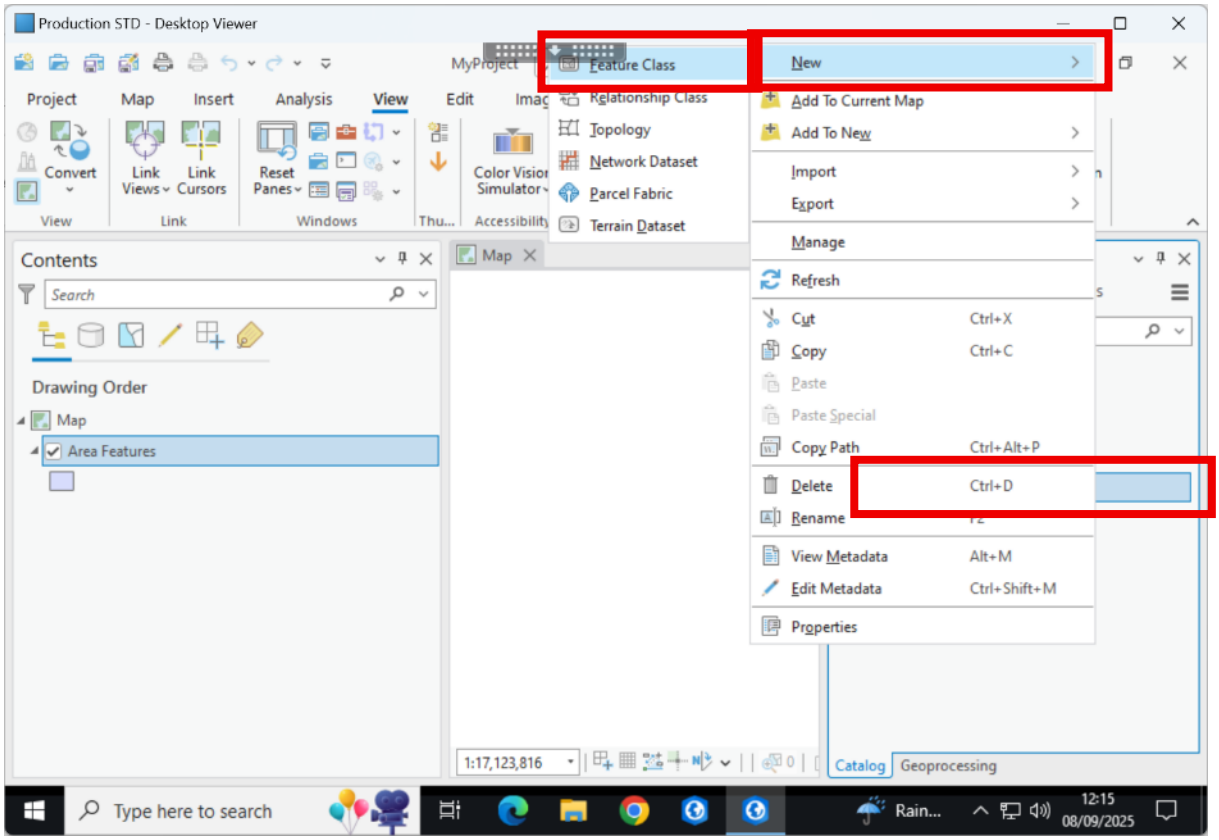
vii. Add a final new field by clicking again on ‘Click here to add new field’, name this new field ‘BNG_New_Habitat’ with a ‘text’ data type.

viii. Click ‘Finish’, creating your new ‘Area’ feature class which will appear in the ‘Contents’ pane.



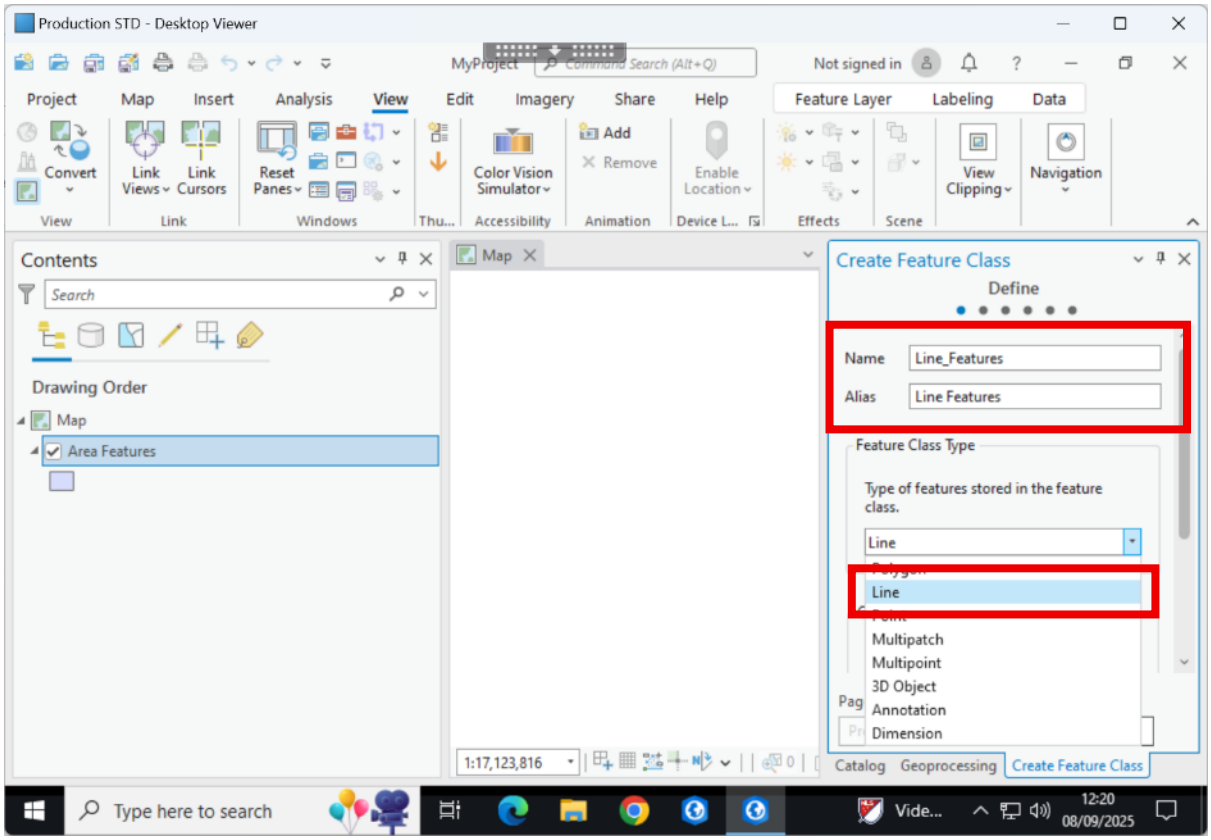
b. Line

i. To create your ‘Line’ feature class. Navigate back to your Feature Dataset (shown as ‘iCATFeatureDataset’ in the above screenshot). As before, right click and go to ‘New’ and select ‘Feature Class’ from the drop down menu.



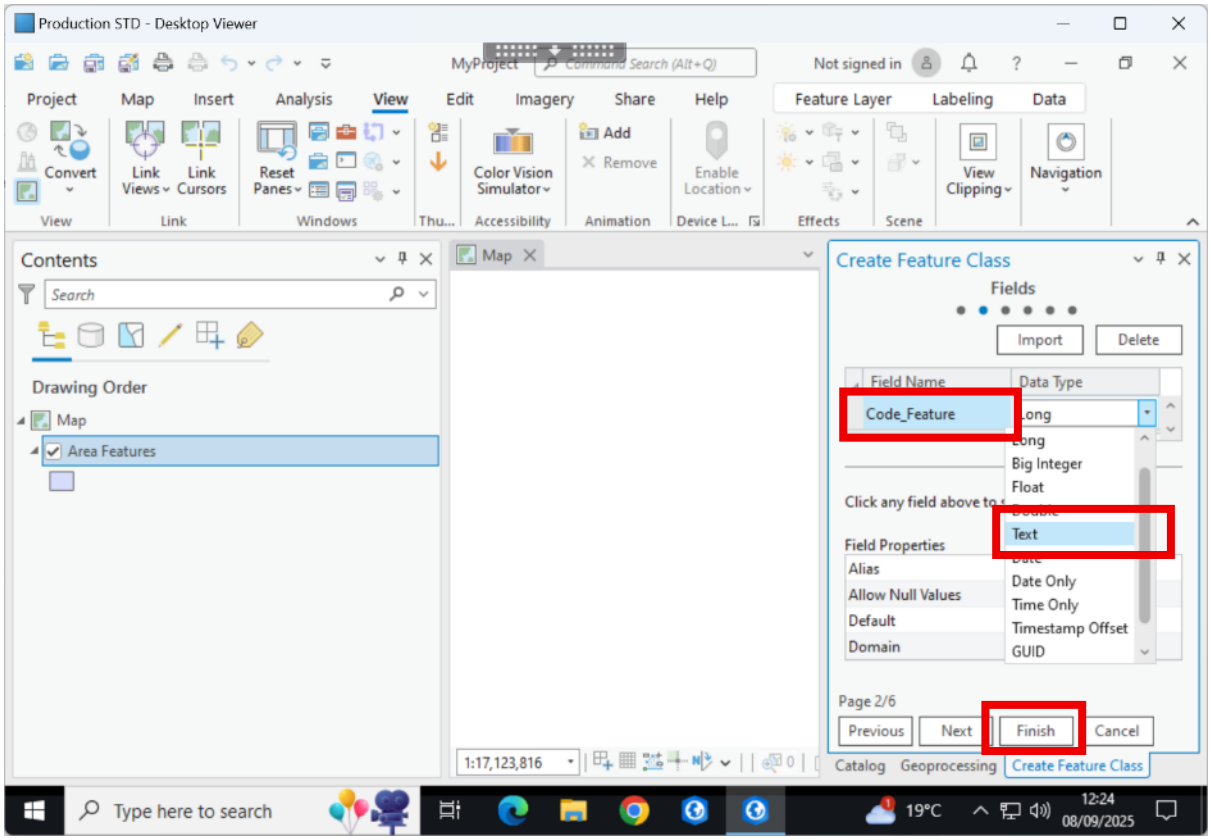
ii. Name the this feature class ‘Line_Features’ with the alias ‘Line Features’ or similar

iii. Make sure to change the ‘Feature Class Type’ using the drop down and selecting ‘Line’



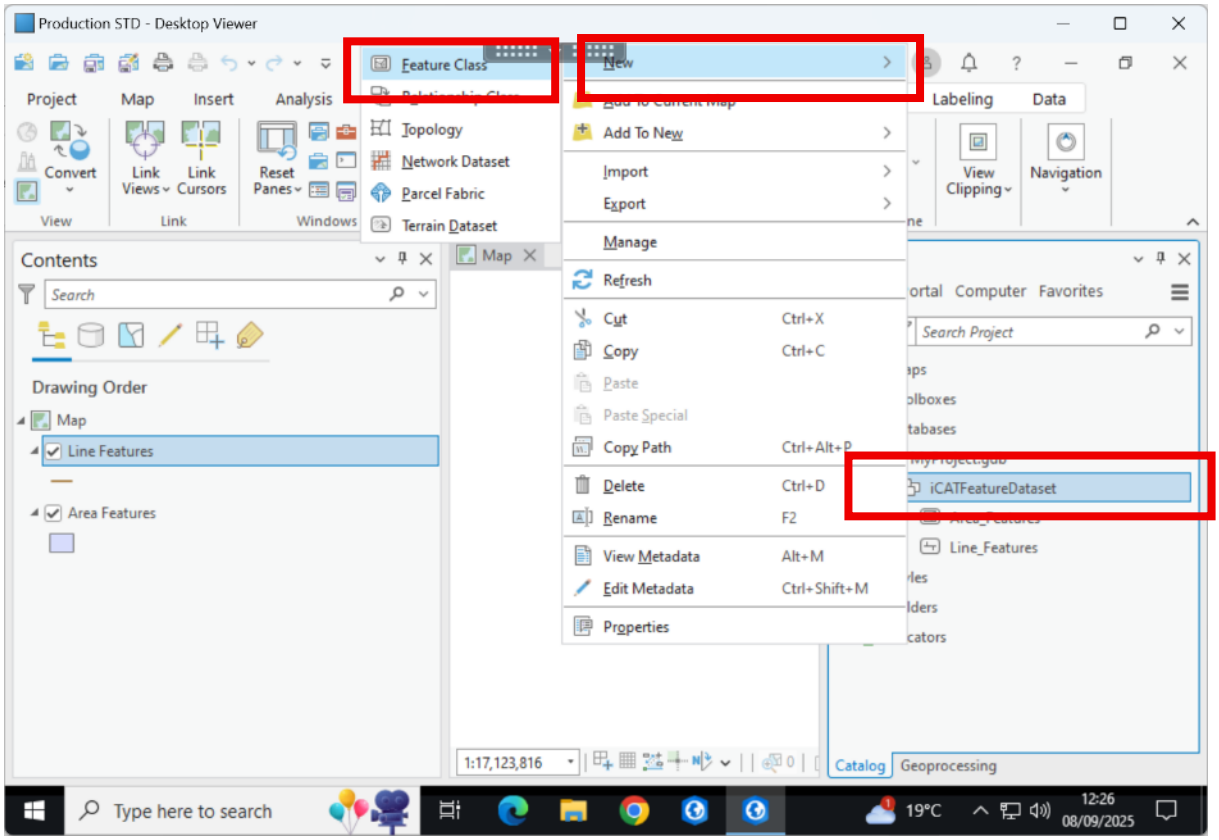
iv. Click ‘next’ and click on ‘Click here to add new field’ as before

v. This time, you’ll only rename ‘Field’ which is highlighted to ‘Code_Feature’ and select ‘Text’ from the drop down before clicking ‘Finish’ to create your line feature class.



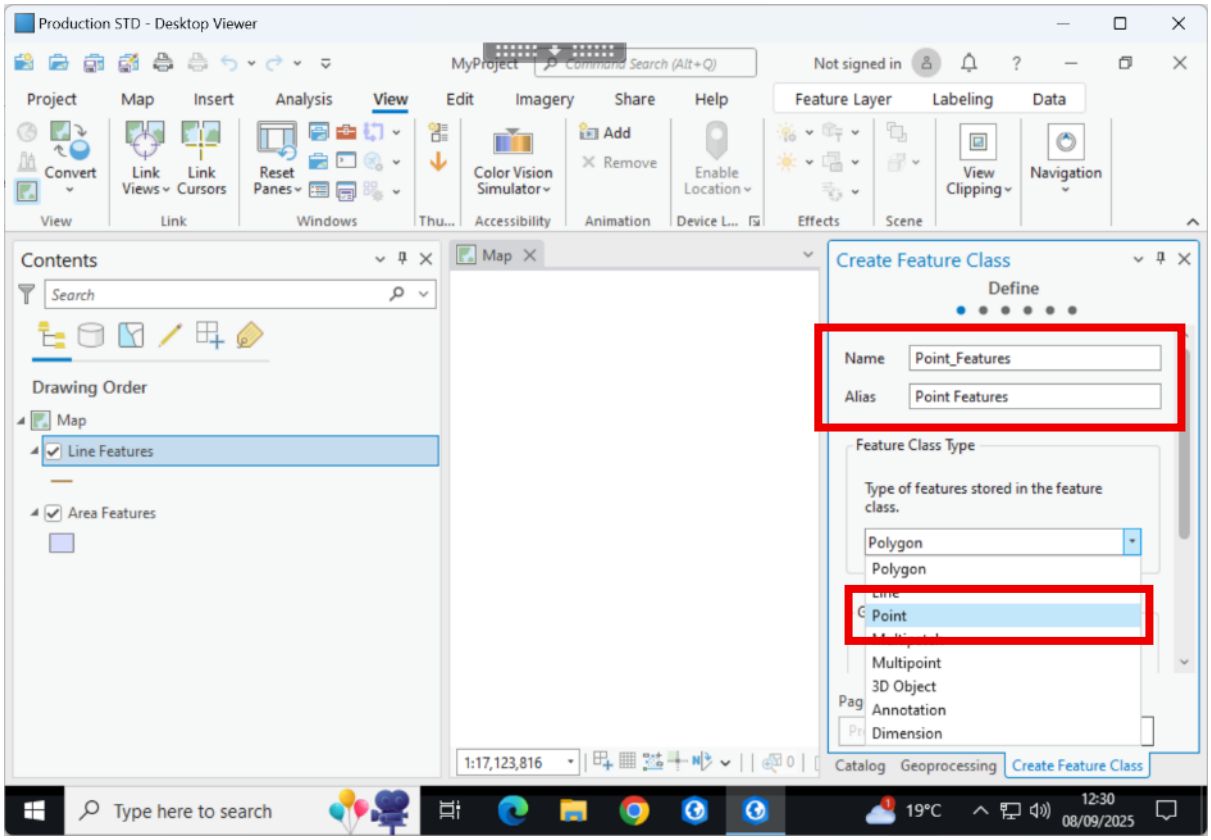
c. Point

i. To create your ‘Point’ feature class. Navigate back a final time to your Feature Dataset. As before, right click and go to ‘New’ and select ‘Feature Class’ from the drop down menu.



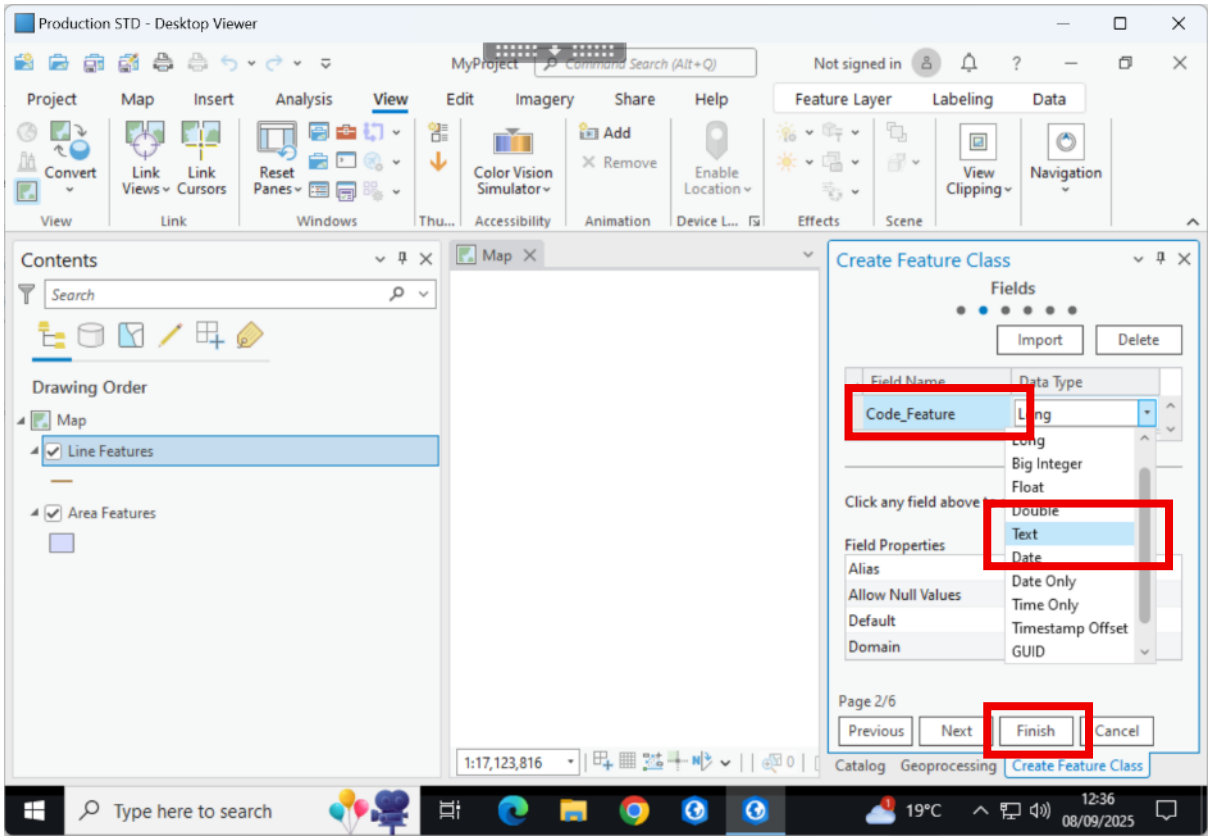
ii. Name the this feature class ‘Point_Features’ with the alias ‘Point Features’ or similar

iii. Make sure to change the ‘Feature Class Type’ using the drop down and selecting ‘Point’

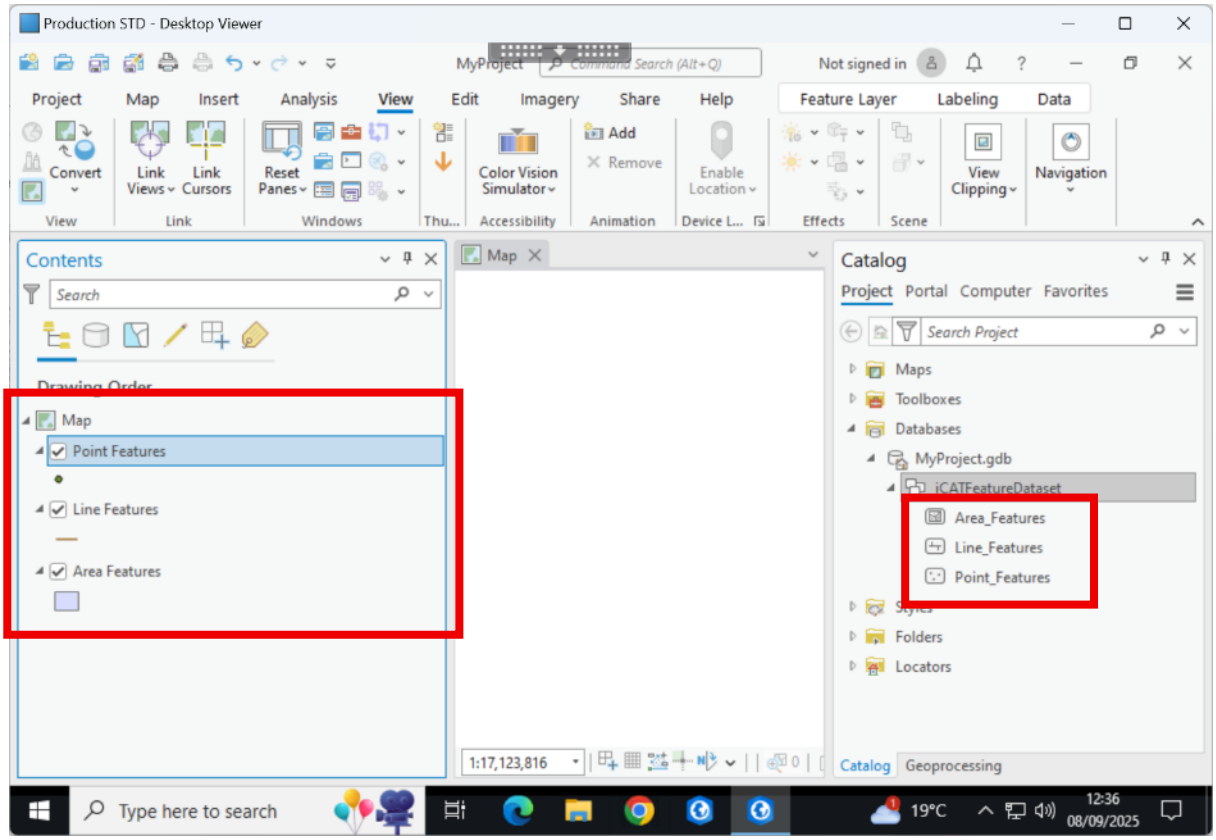


iv. Click ‘next’ and click on ‘Click here to add new field’ as before

v. Similar to the line feature class, you’ll only rename ‘field’ which is highlighted to ‘Code_Feature’ and select ‘Text’ from the drop down before clicking ‘Finish’ to create your line feature class.

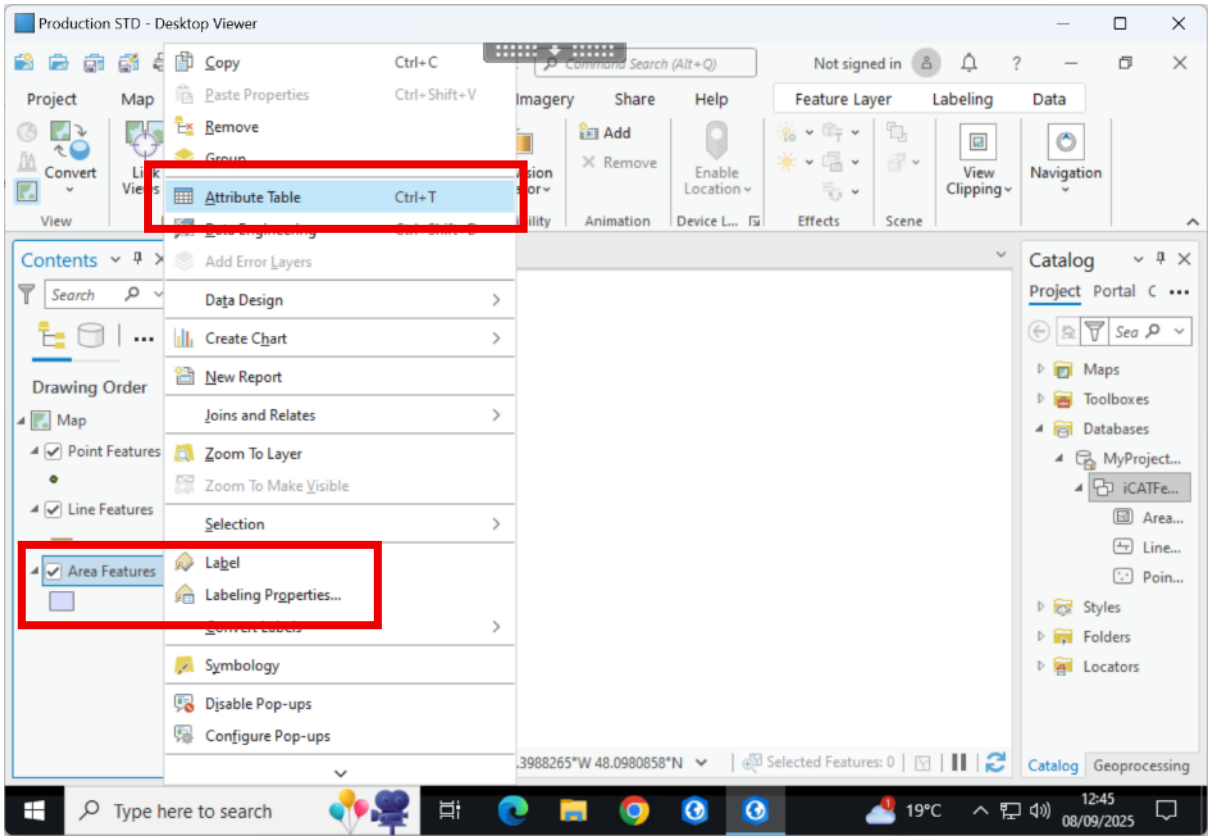


You will now be able to see all three feature classes you have just created, both within the Catalog pane and ready for digitising within the ‘Contents’ pane.

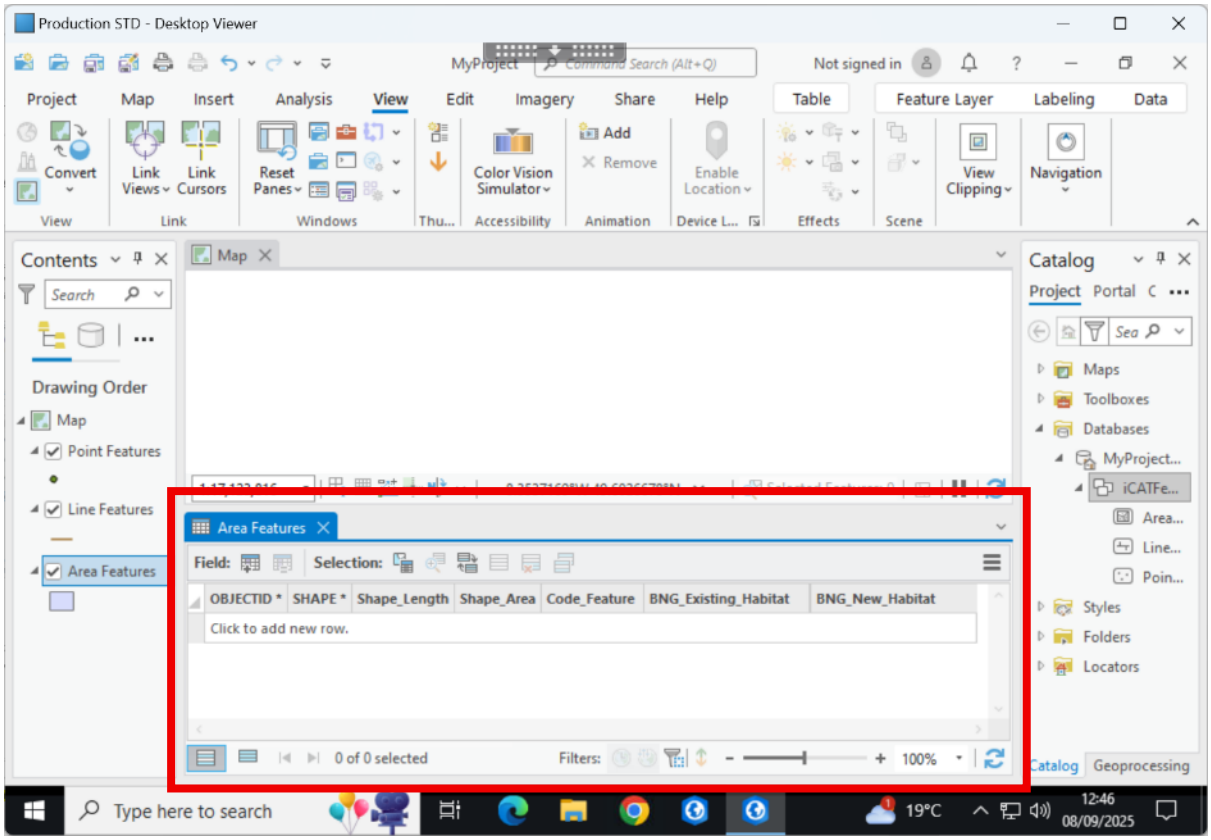


Each feature class created in this way has now also produced a corresponding attribute table which we can use in iCAT. To view these attribute tables…

1. Right click on the feature within the ‘Contents’ pane
2. Navigate and click on ‘Attribute Table’ which is the fifth option on the drop down list



3. This will display the following table



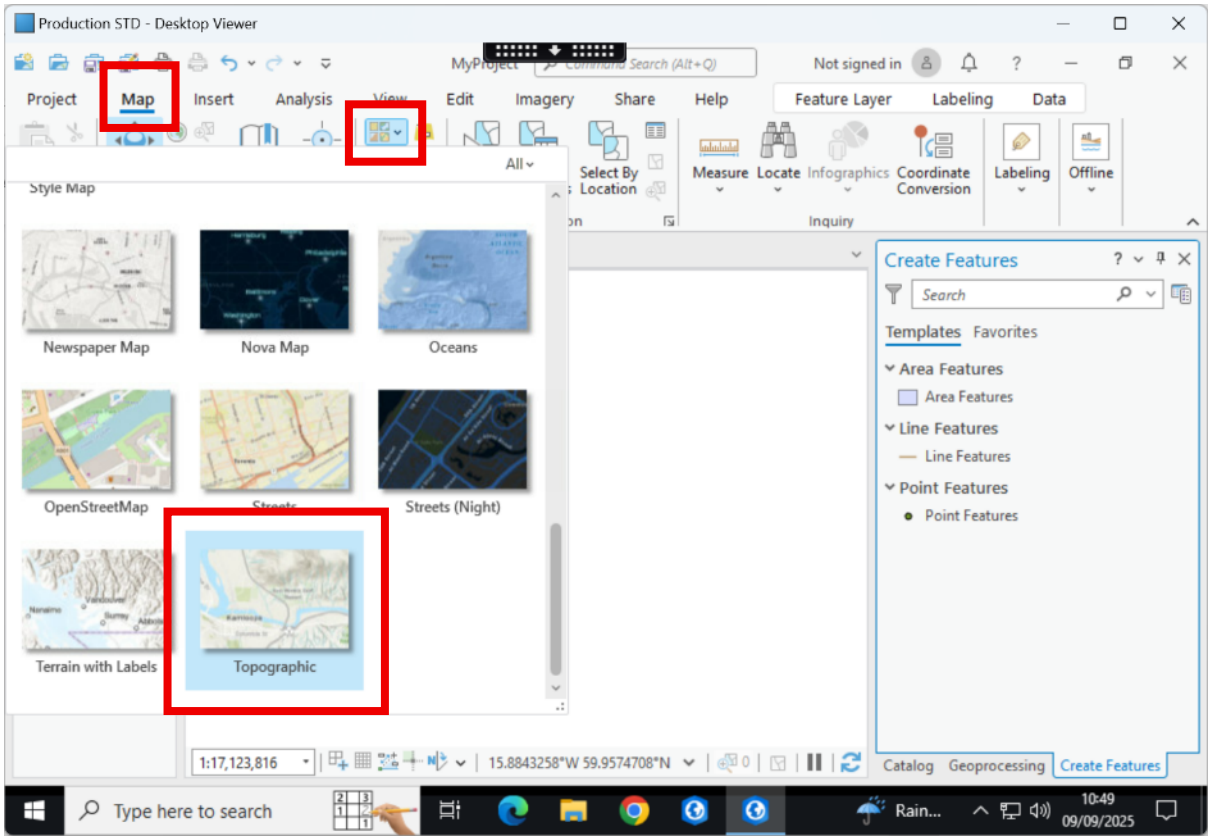
You will notice there is no data shown here at the moment as this needs to be digitised/created. The above steps have provided the framework for data to be stored.

How to Digitise

Digitising is the name given to the creation/mapping of features within ArcGIS.

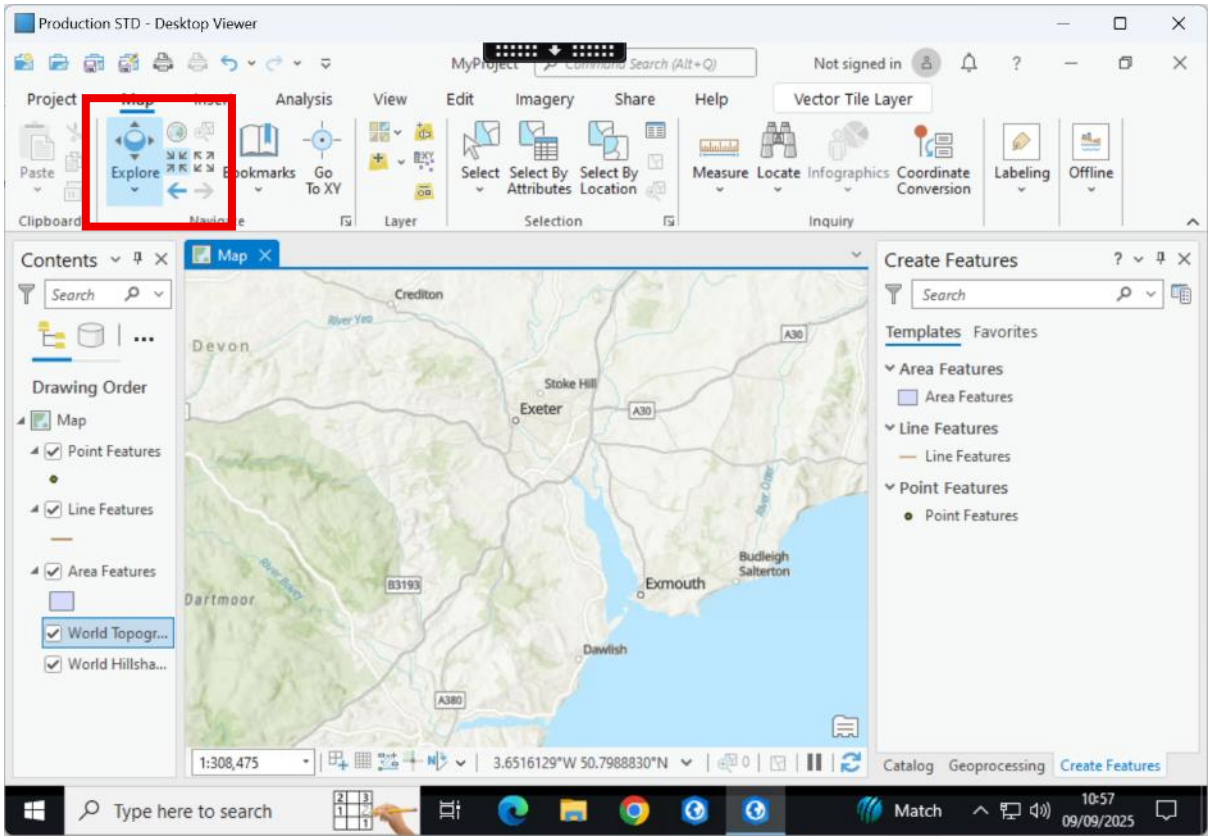
The follow steps are suitable for use of the ArcPro software:

1. Under the 'Map' tab, add a basemap of your choice. For this example, we will use 'Topographic'. This data will now also show in the 'Contents' pane.



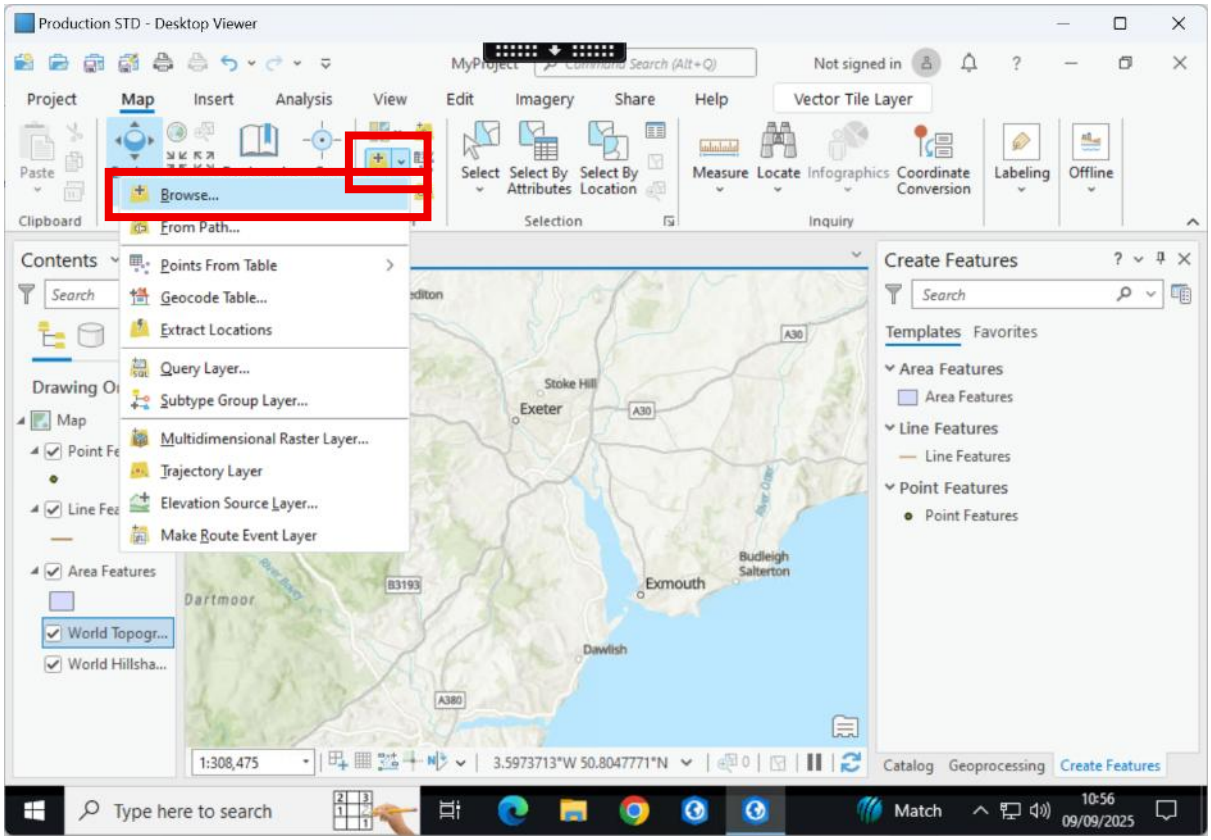
2. Use the explore/zoom functions to locate your project/catchment area of interest. To outline your catchment/project boundary, you may also prefer to import or create your own shapefile data here.

    a. To locate your project/catchment area of interest, use the explore/zoom functions as highlighted



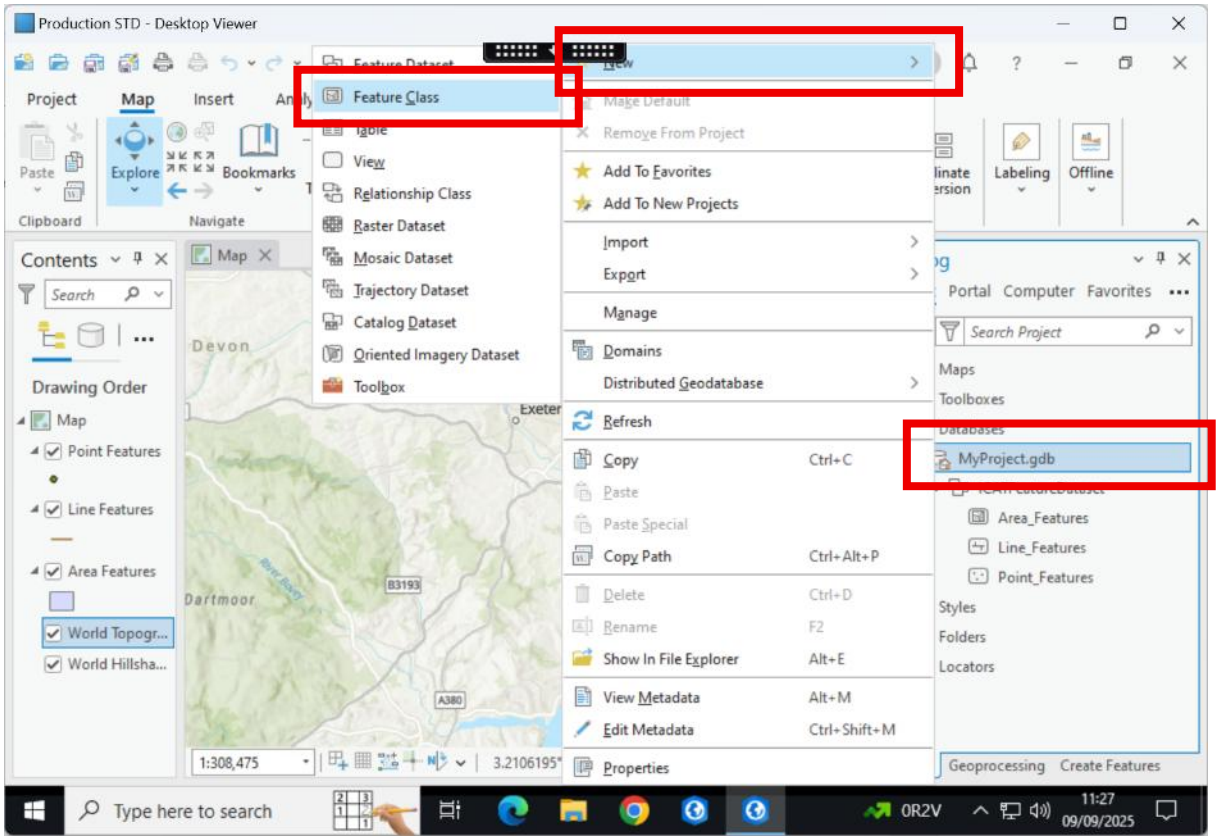
Or

b. To add your own shapefile, under the ‘map’ tab, click on the ‘add data’ drop down arrow and click ‘Browse…’ Here you can navigate to a suitable catchment/project boundary layer and click ‘okay’.



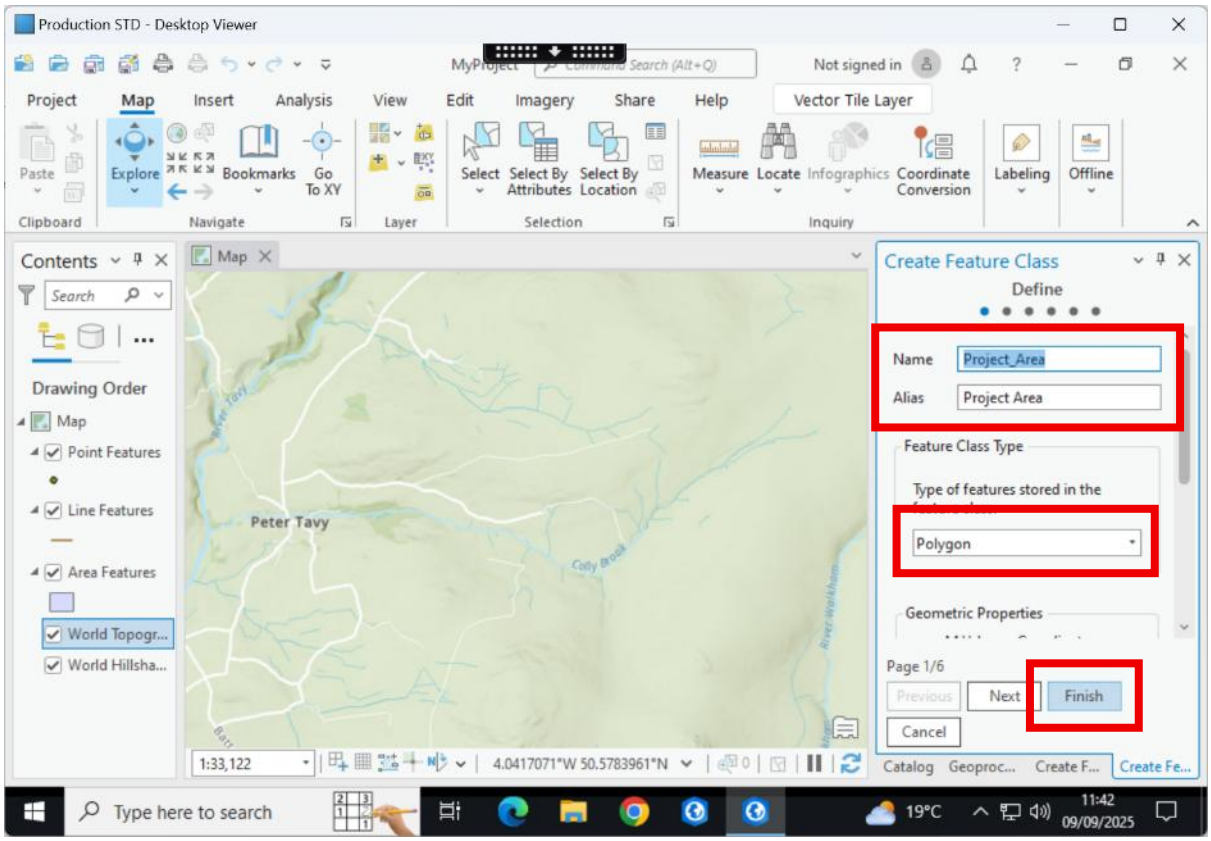
Or

c. To create your own catchment/project boundary layer, create an additional feature class within the geodatabase, using the same steps undertaken above to create the ‘area’, ‘line’ and ‘point’ feature classes.

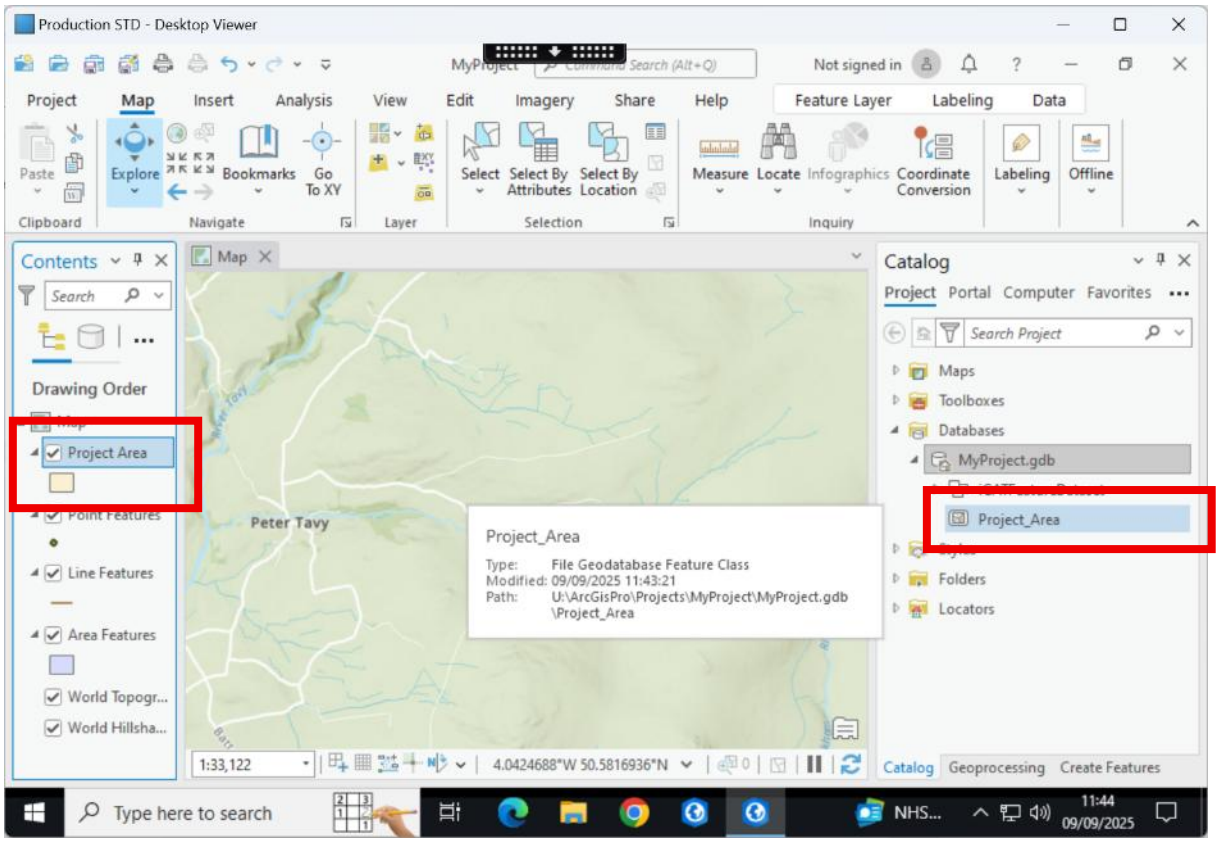


i. Name the Feature Class suitably for your project.

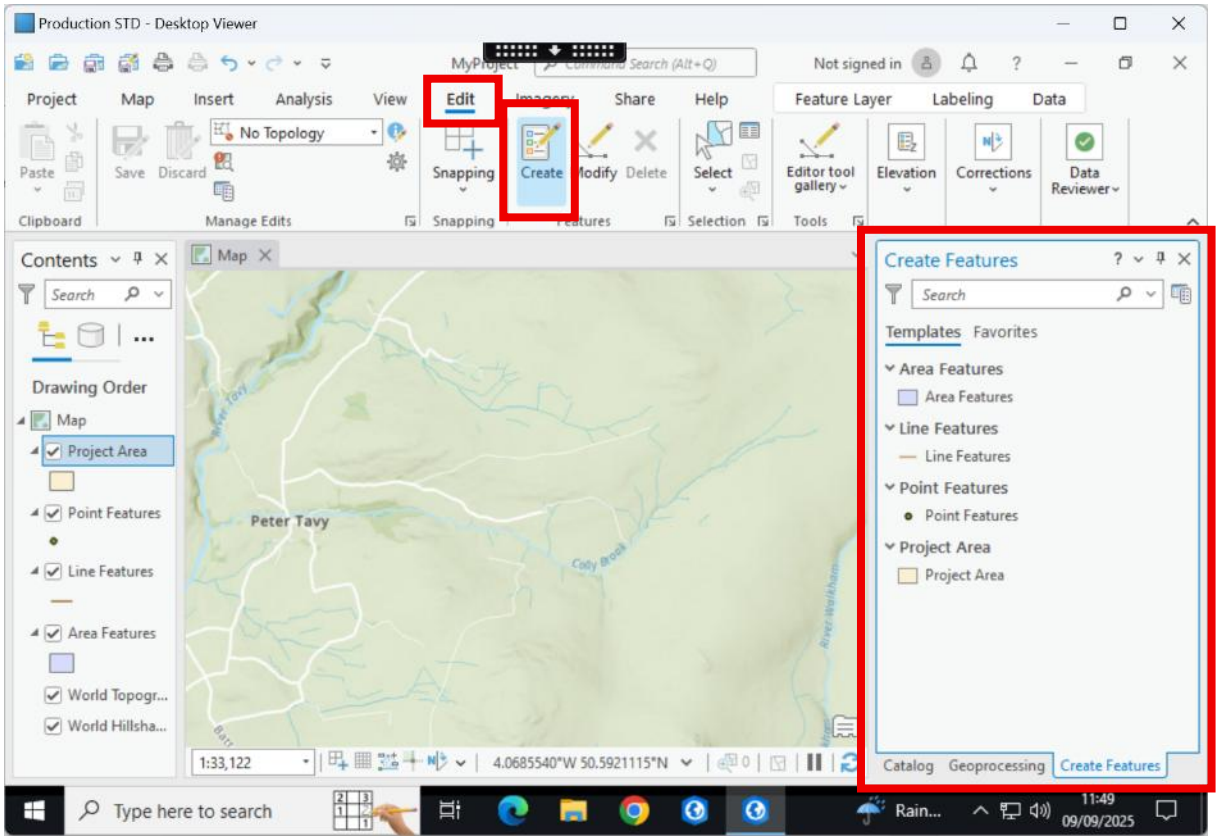
ii. Make sure that the feature class type is set to ‘Polygon’ and click ‘Finish’.



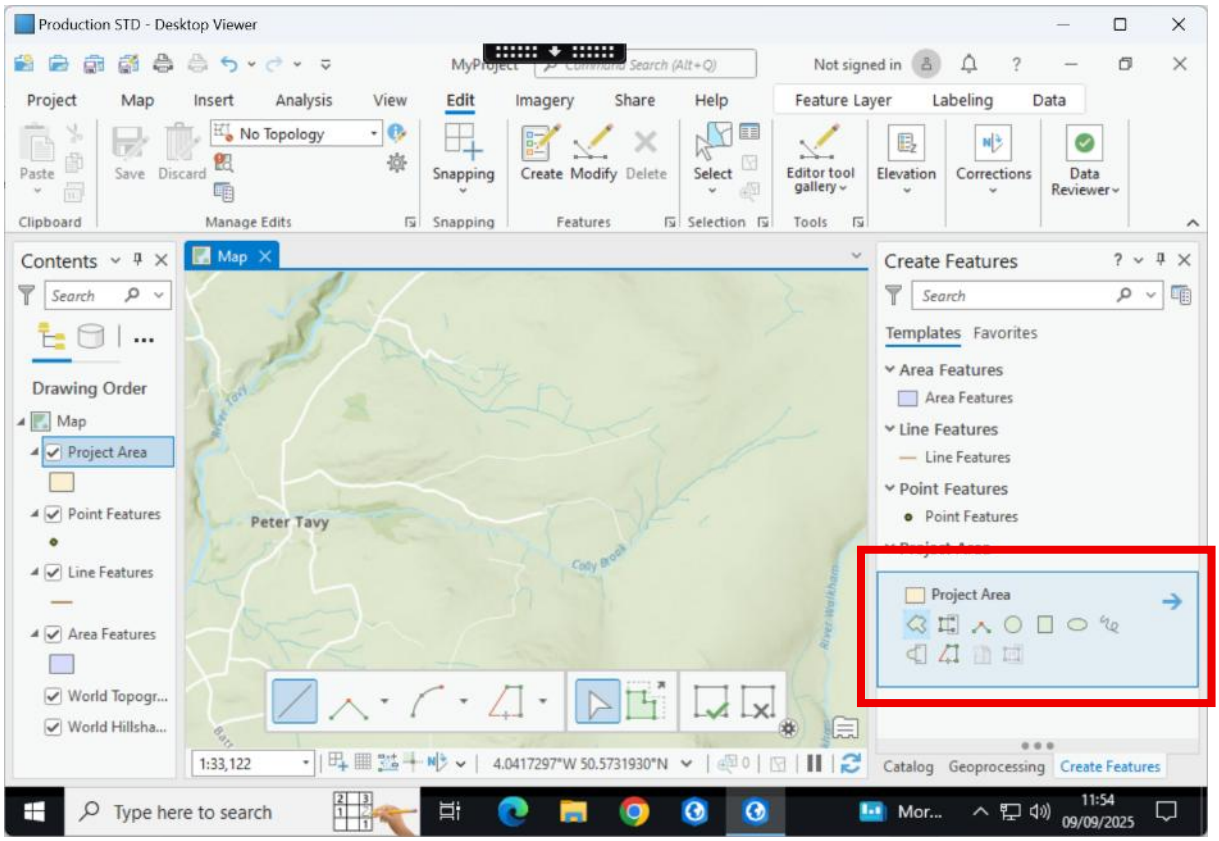
Your ‘Project Area’ feature class will now appear in the ‘Catalog’ and ‘Contents’ panes.



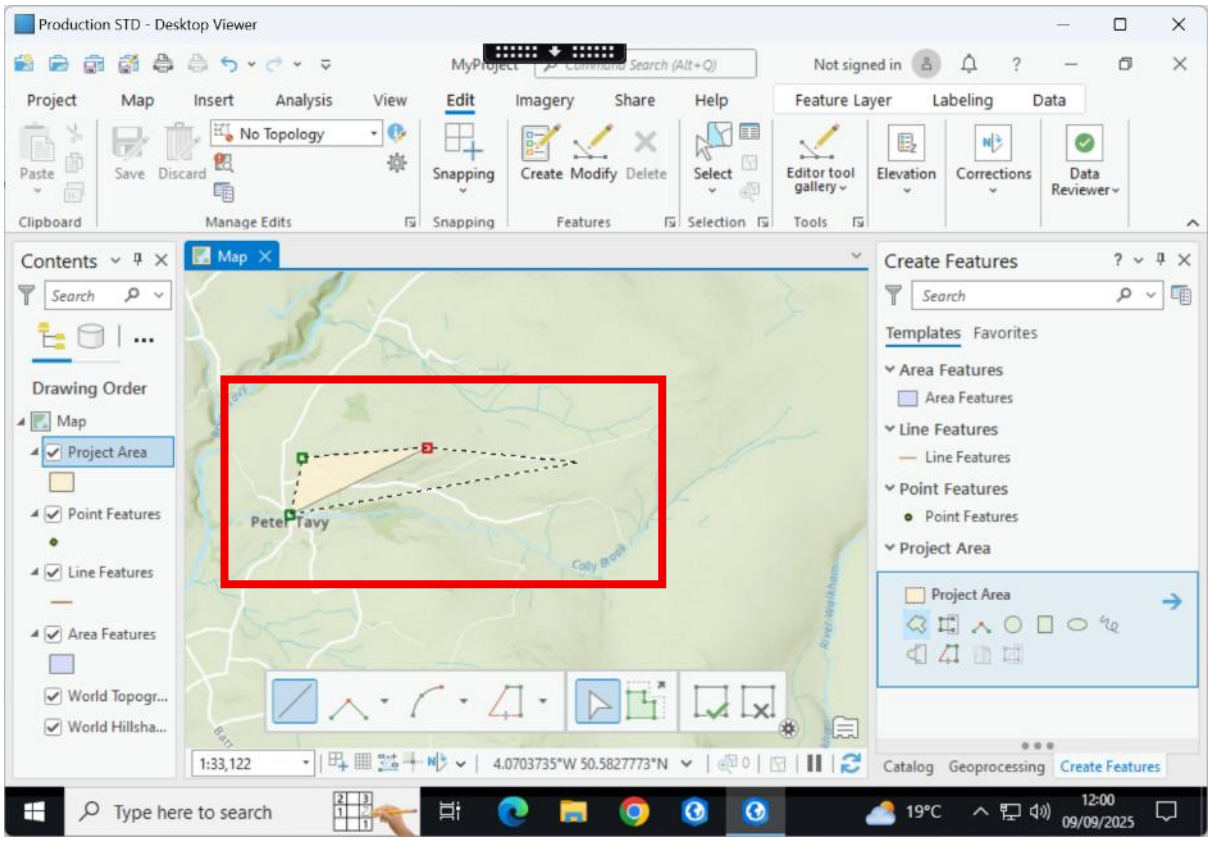
3. To create features within the ‘area’, ‘line’ and ‘point’ feature classes (and ‘Project Area’, if newly created), navigate to the edit tab and click on ‘Create’. A ‘Create Features’ tab will then appear with the ‘area’, ‘line’ and ‘point’ features listed.



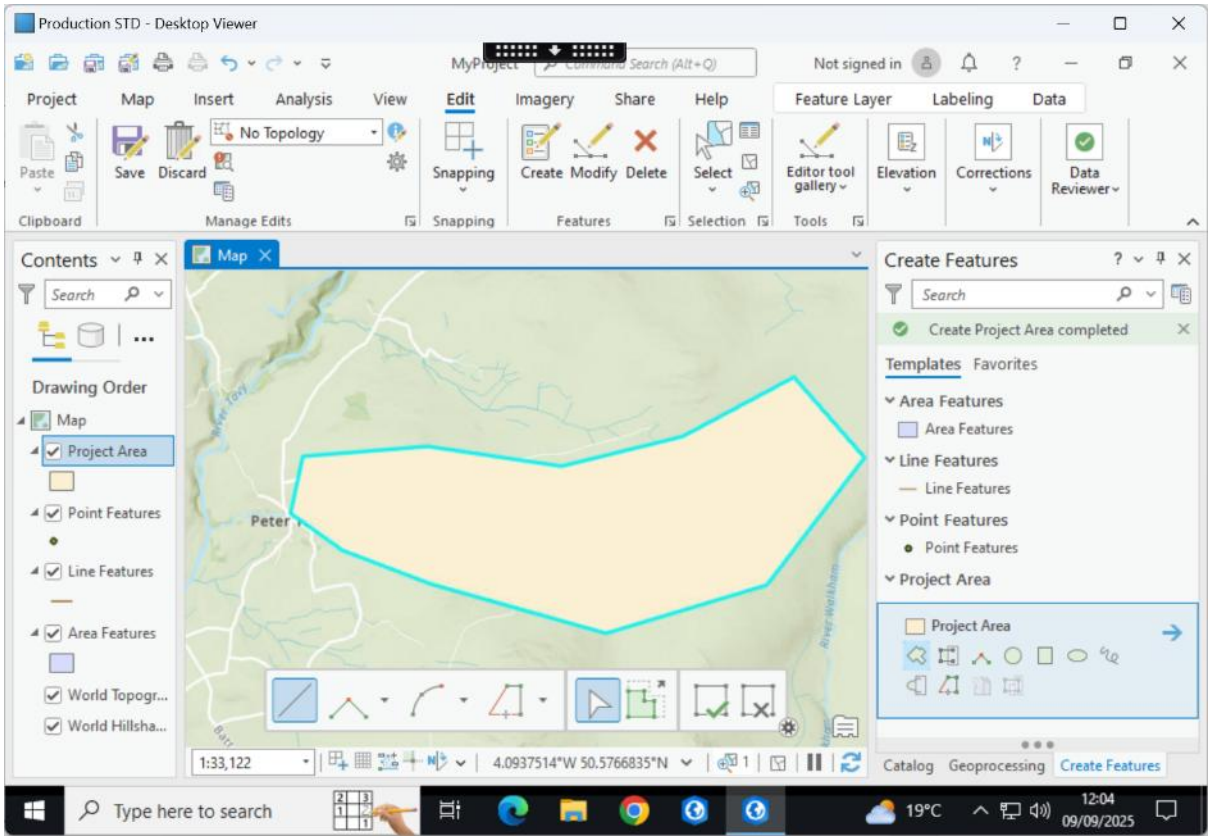
4. Click on the feature class you would like to digitise in the Create Features pane. For this first example, we will start with an area feature, 'Project Area'.



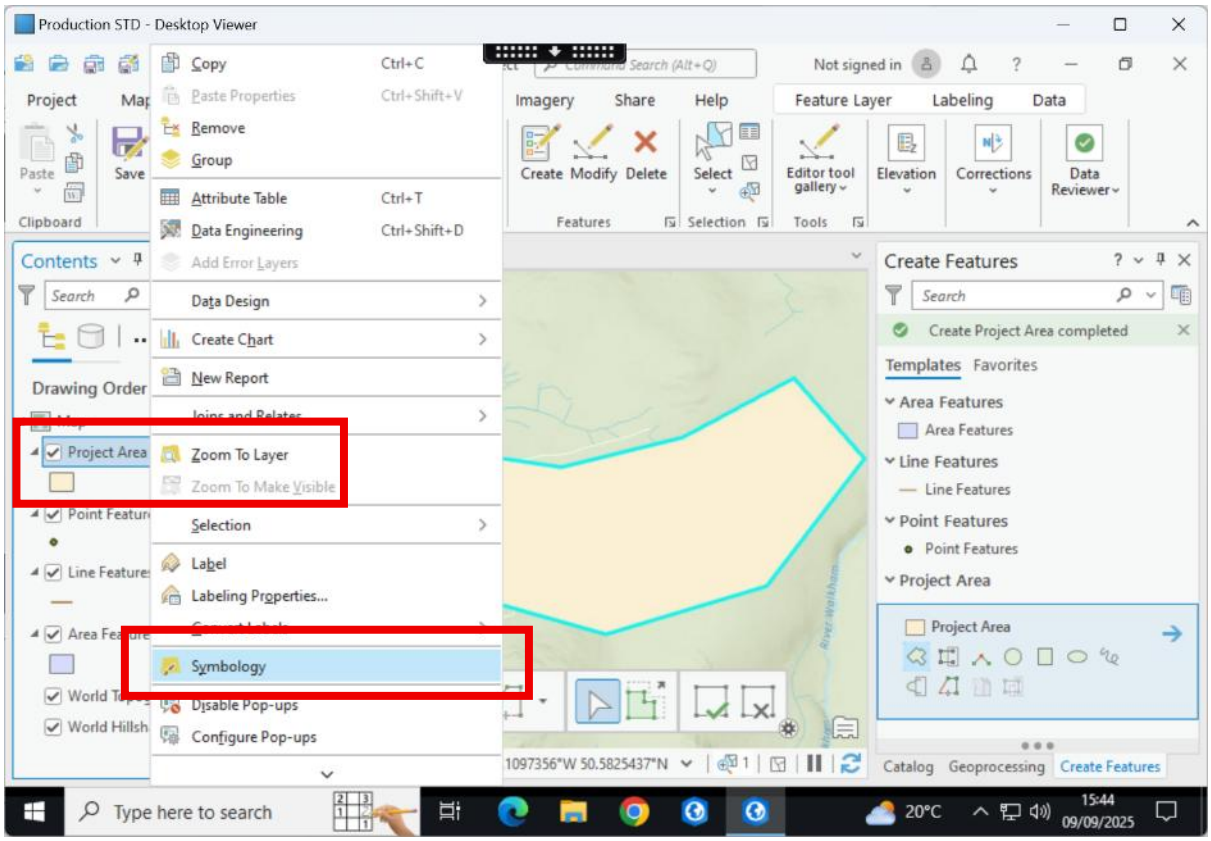
a. The cursor will then change into a ‘cross’ icon. As we are using a polygon feature type here, click on the map to draw the first node of the feature and continue on to draw the remaining nodes, outlining the new polygon feature. The most recent node will be coloured ‘red’ and the saved nodes will show as ‘green’ as you work though the features outline.

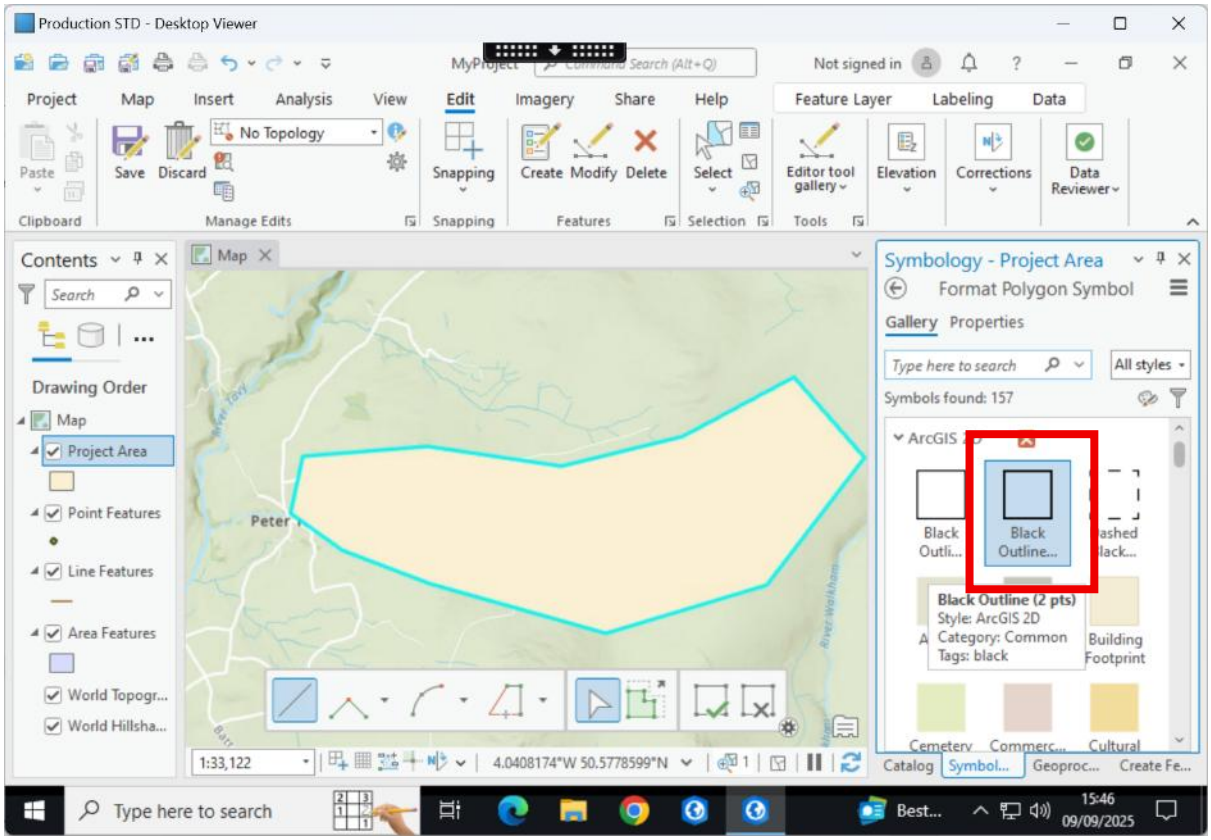


b. Once you have marked out the last node, double click, and the new polygon will show as a turquoise outline.

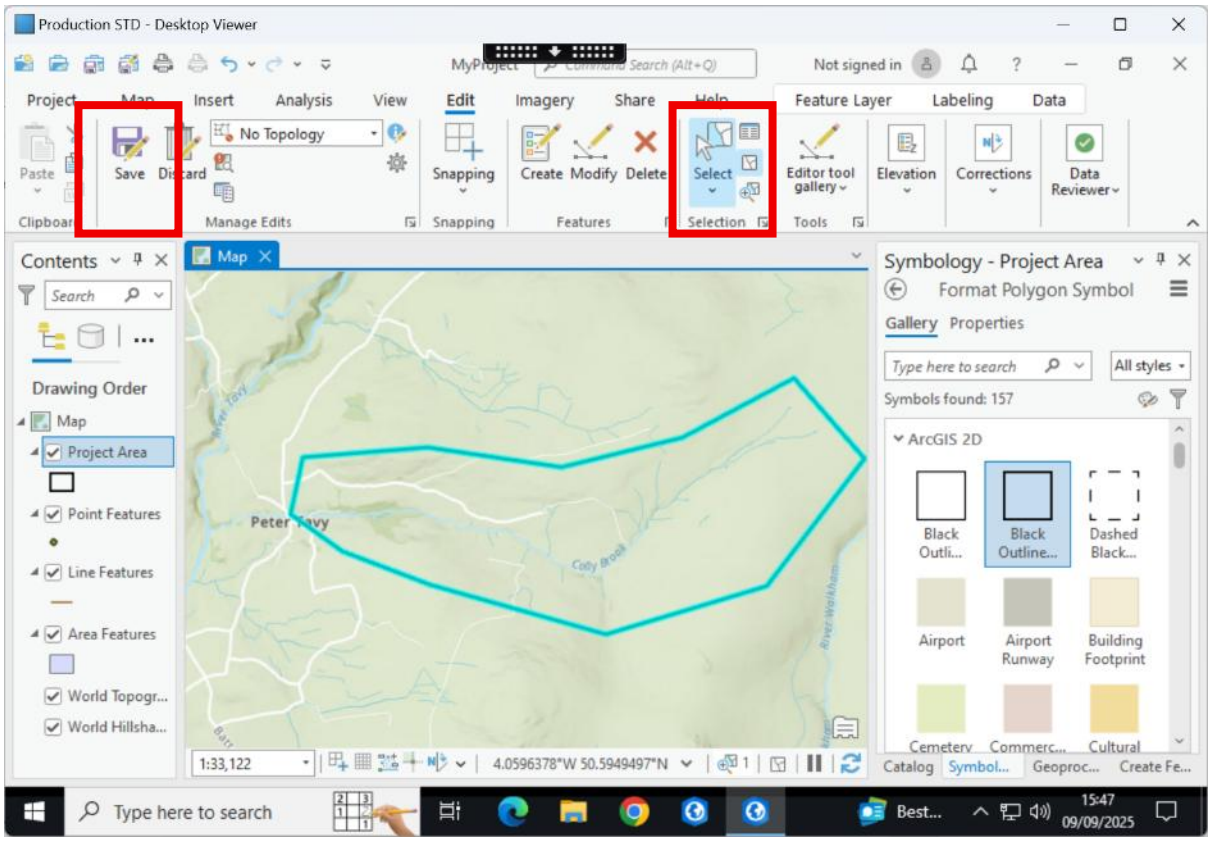


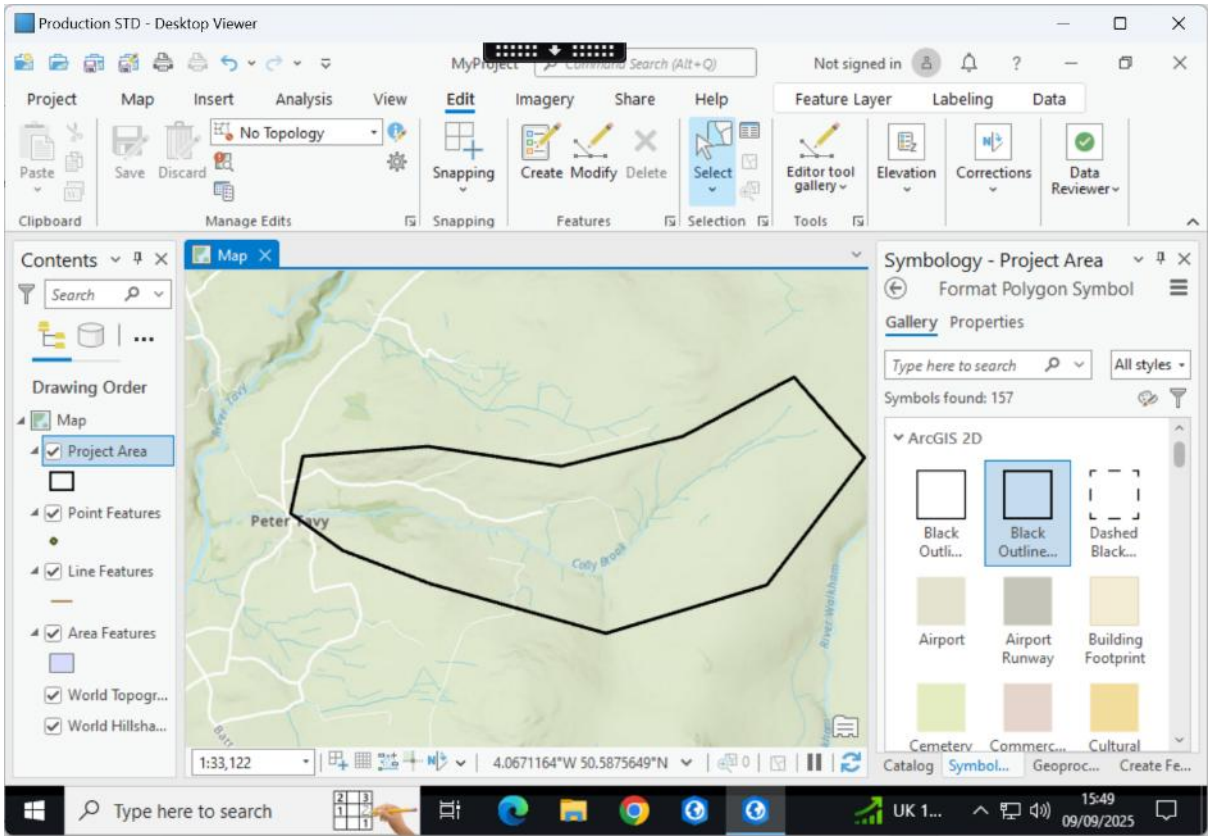
c. Right click on the ‘Project Area’ layer in the Contents pane and change the symbology to show the ‘Project Area’ as a black outline.



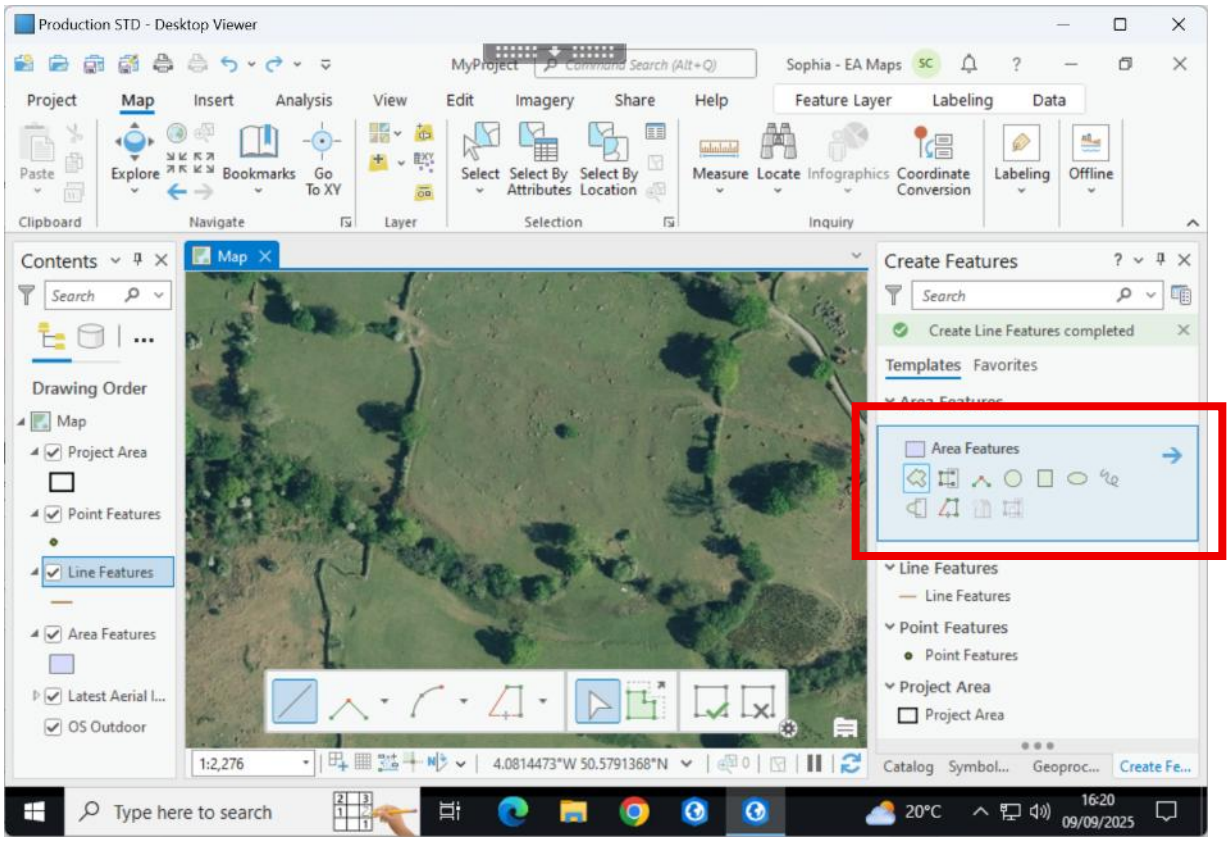


d. Unselect the highlighted/selected features using the ‘clear’ function. Save using the save icon, giving you the final black outline.



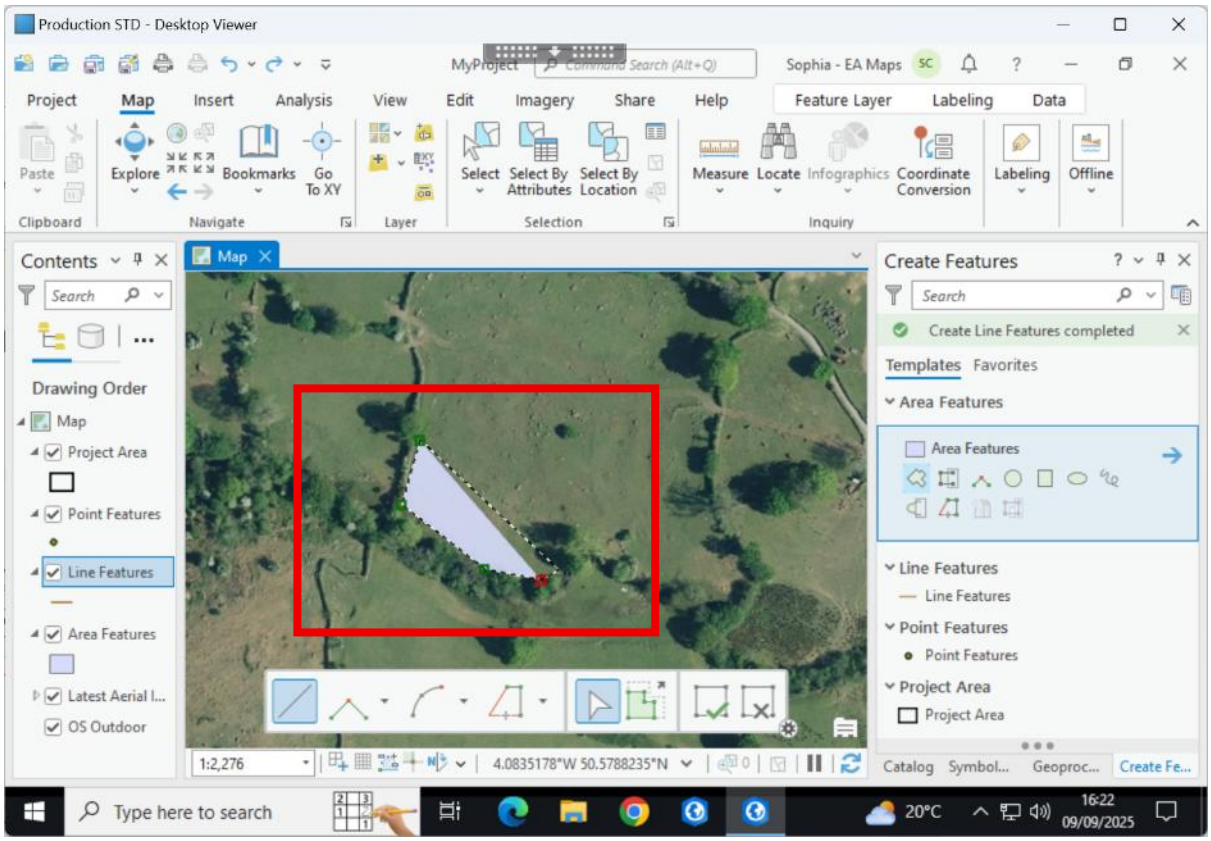


5. To create ‘area’ features go to the ‘Create Features’ pane and click ‘area features.

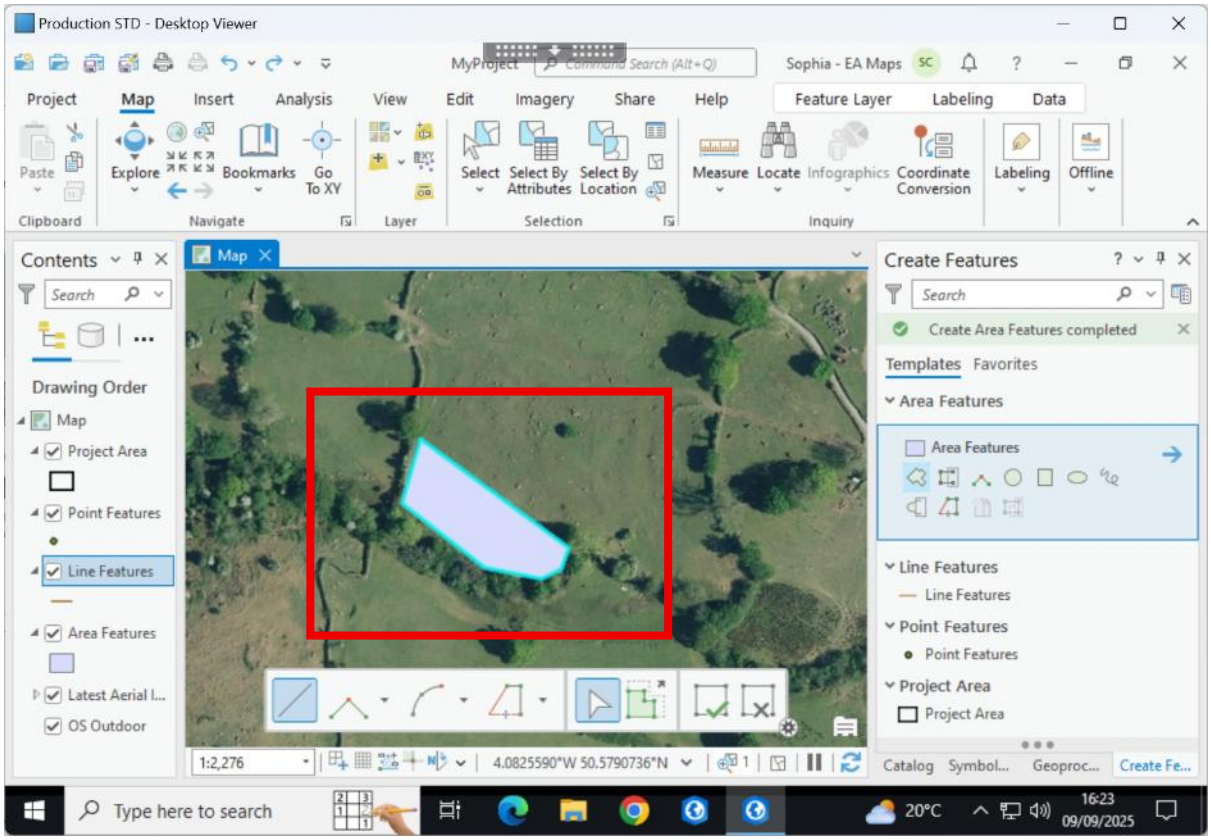


(n.b. basemap has been changed to ariel imagery to aid location of potential NBS feature)

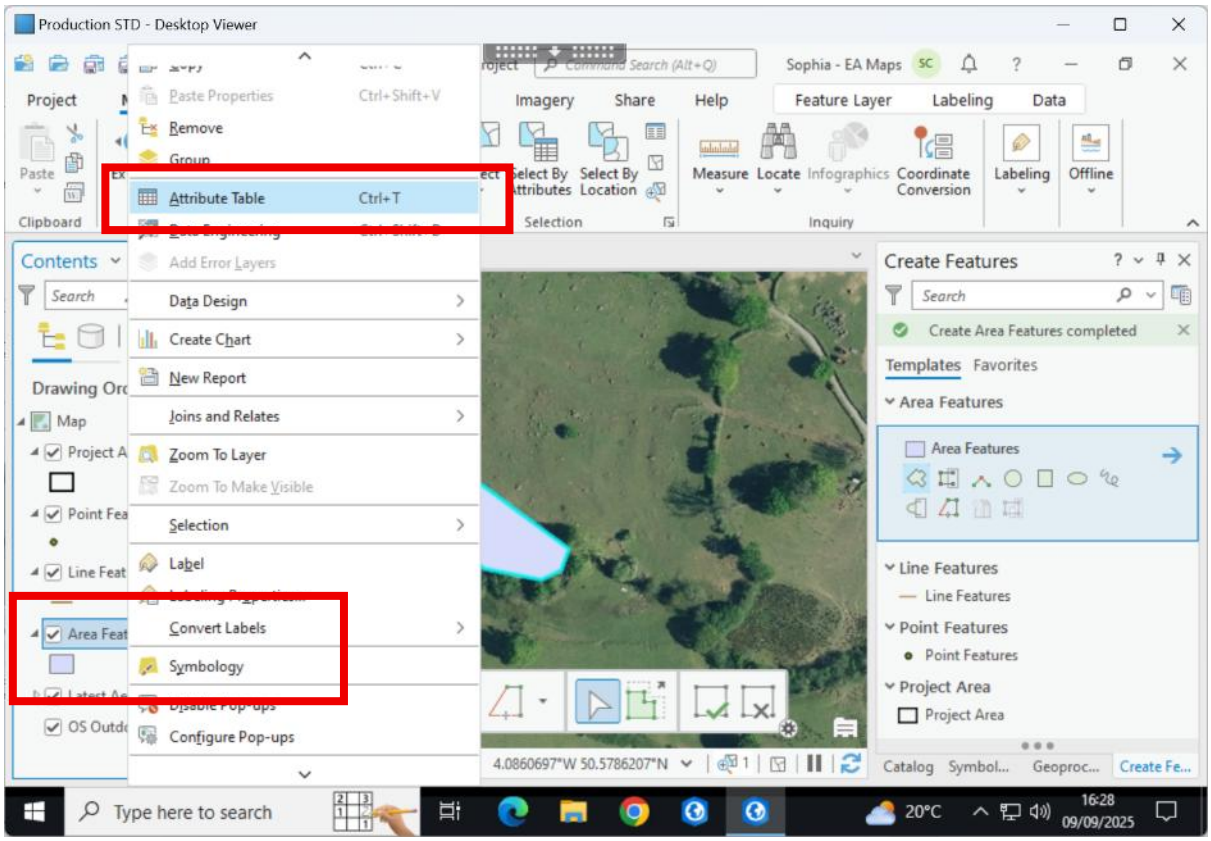
a. As before, the cursor will then change into a ‘cross’ icon. As we are using a polygon feature type here too, click on the map to draw the first node of the feature and continue on to draw the remaining nodes, outlining the new polygon feature. The most recent node will be coloured ‘red’ and the saved nodes will show as ‘green’ as you work though the features outline.



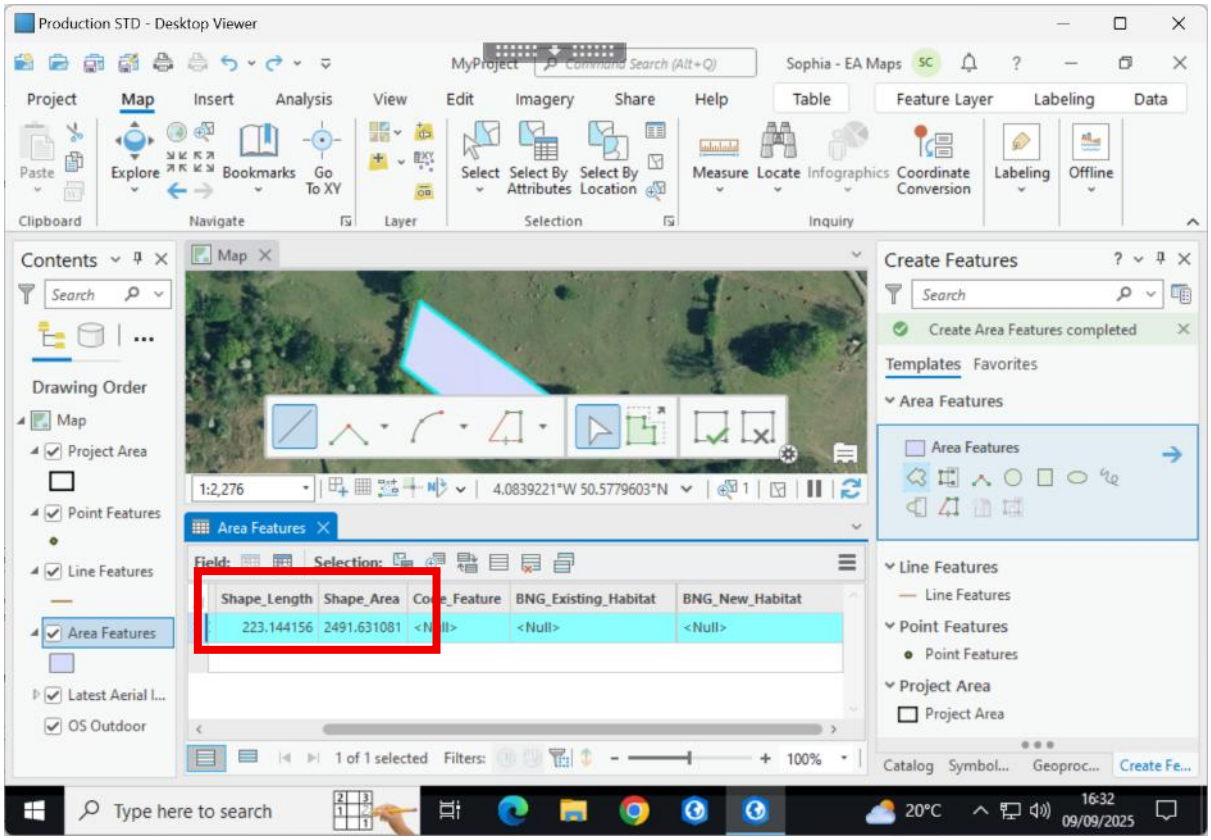
b. Once you have marked out the last node, double click, and the new polygon will show as a turquoise outline.



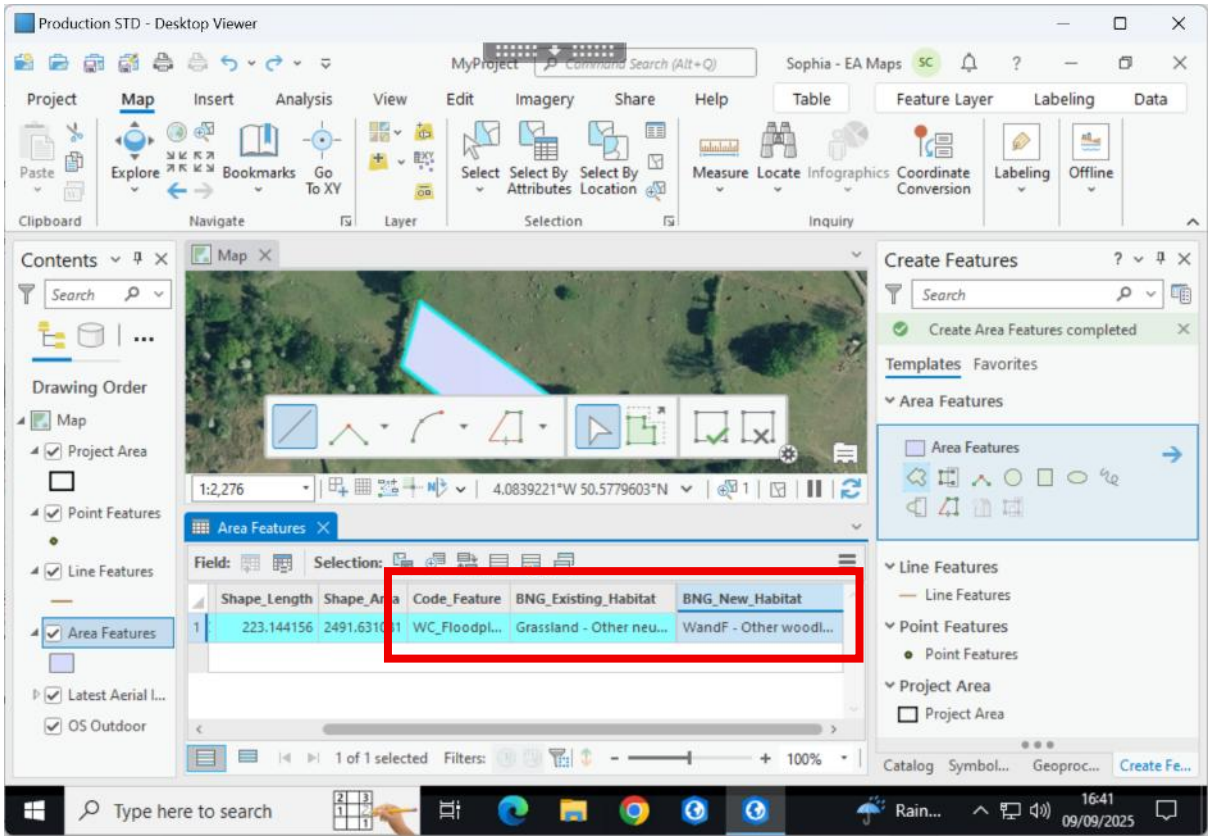
c. Right click on 'Area Features' within the Contents pane and open the attribute table.



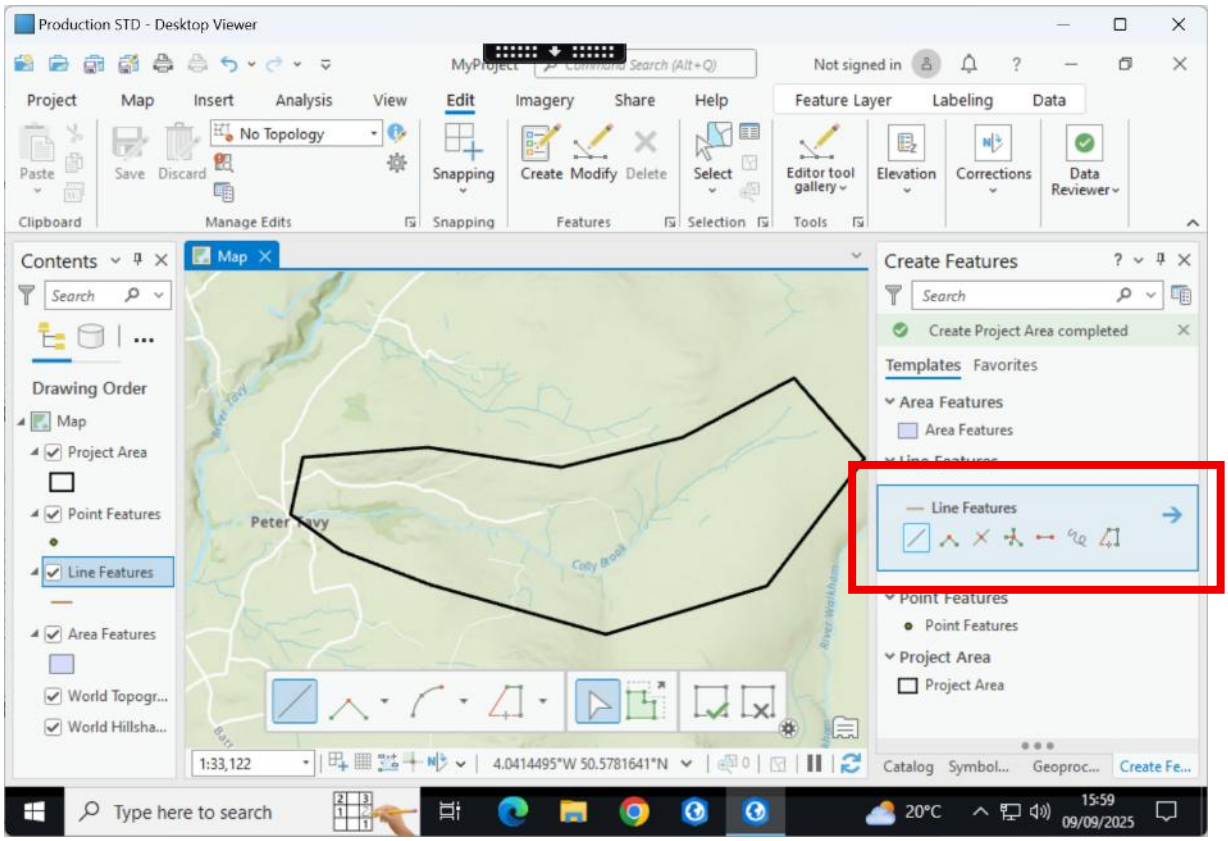
d. You will notice that the ‘Shape_Length’ and ‘Shape_Area’ values have self-populated. ‘Shape_Length’ is measured in meters (m) and ‘Shape_Area’ is measured in meters squared (m^2).



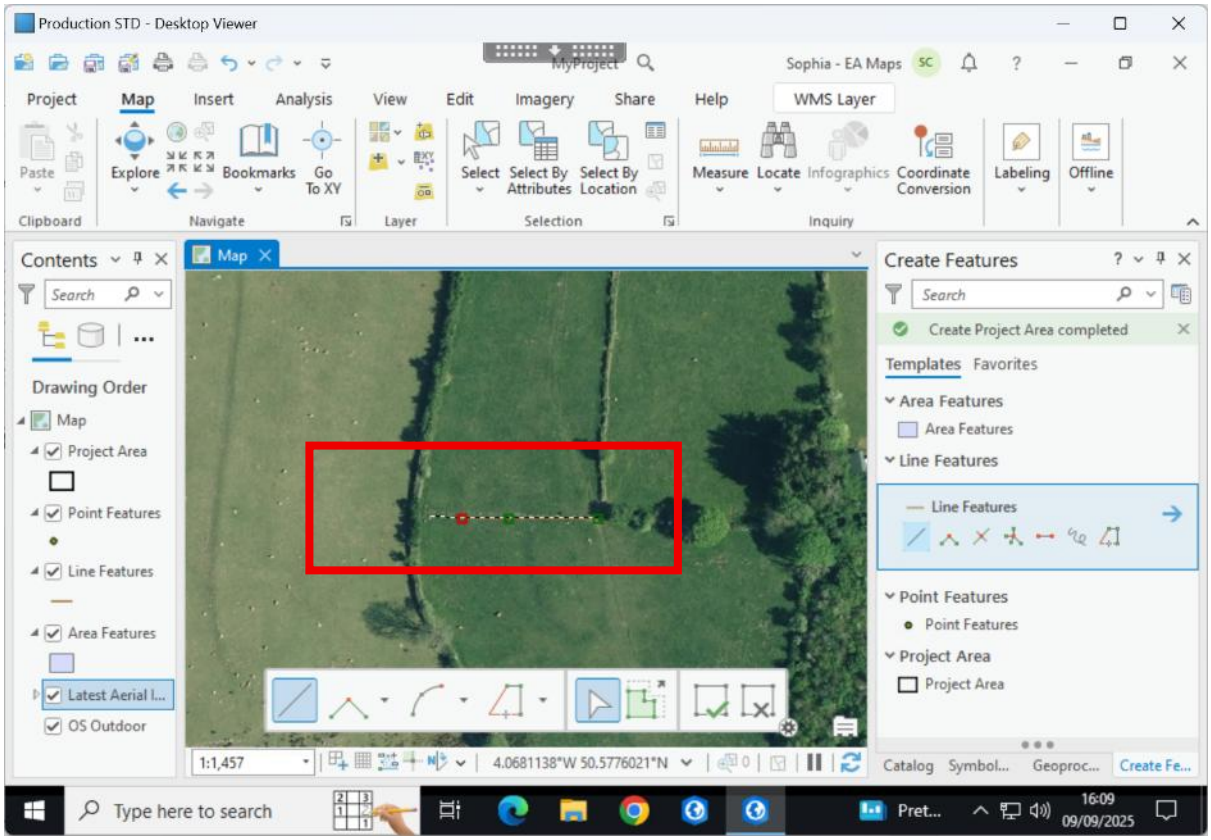
e. Double click on the ‘<Null>’ cells and input the corresponding ‘Code_Features’, ‘BNG_Existing_Habitat’ and ‘BNG_New_Habitat’ metadata for the site. Use https://www.icatonline.uk/guide and follow the instructions there to find the latest keywords. In this example we will call this site woodland creation within the floodplain, converting ‘Grassland - Other neutral grassland - poor’ to ‘WandF - Other woodland; broadleaved – good’.



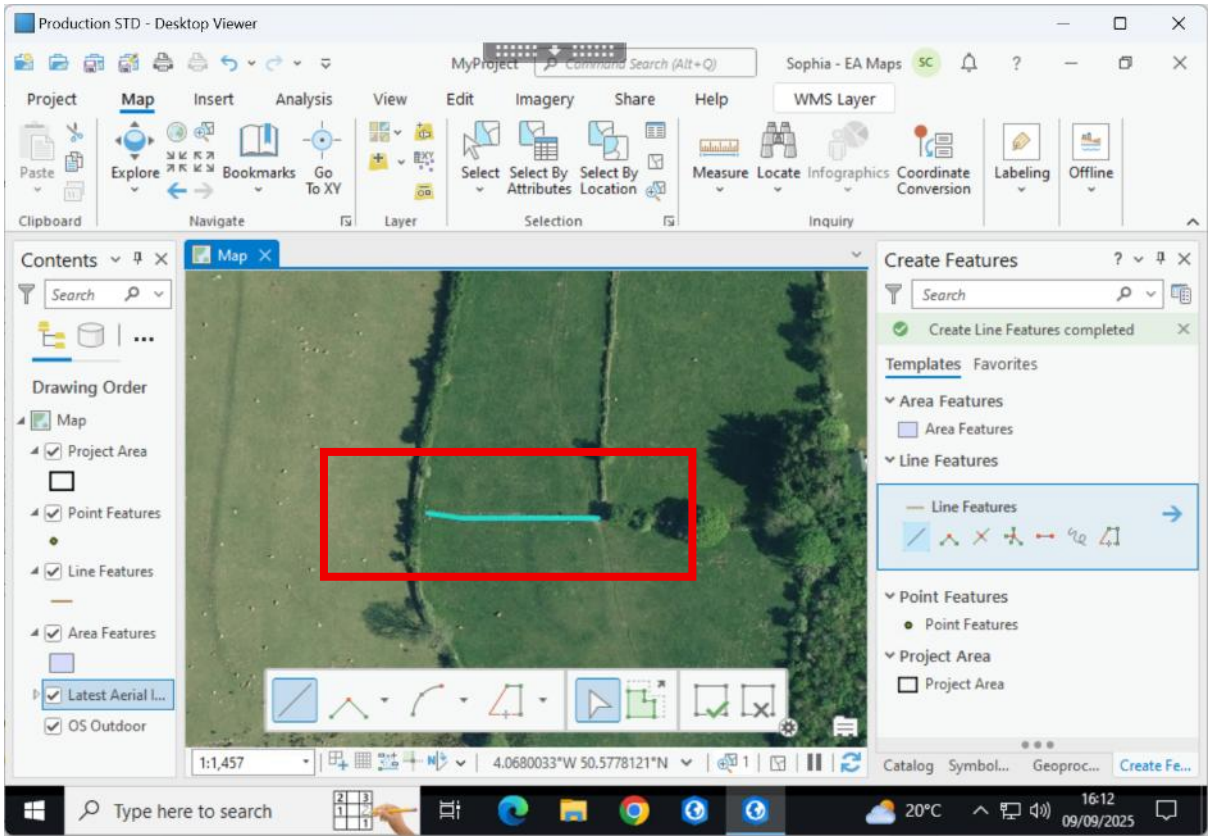
6. To create 'line' features, again, go to the 'Create Features' pane and click line features.



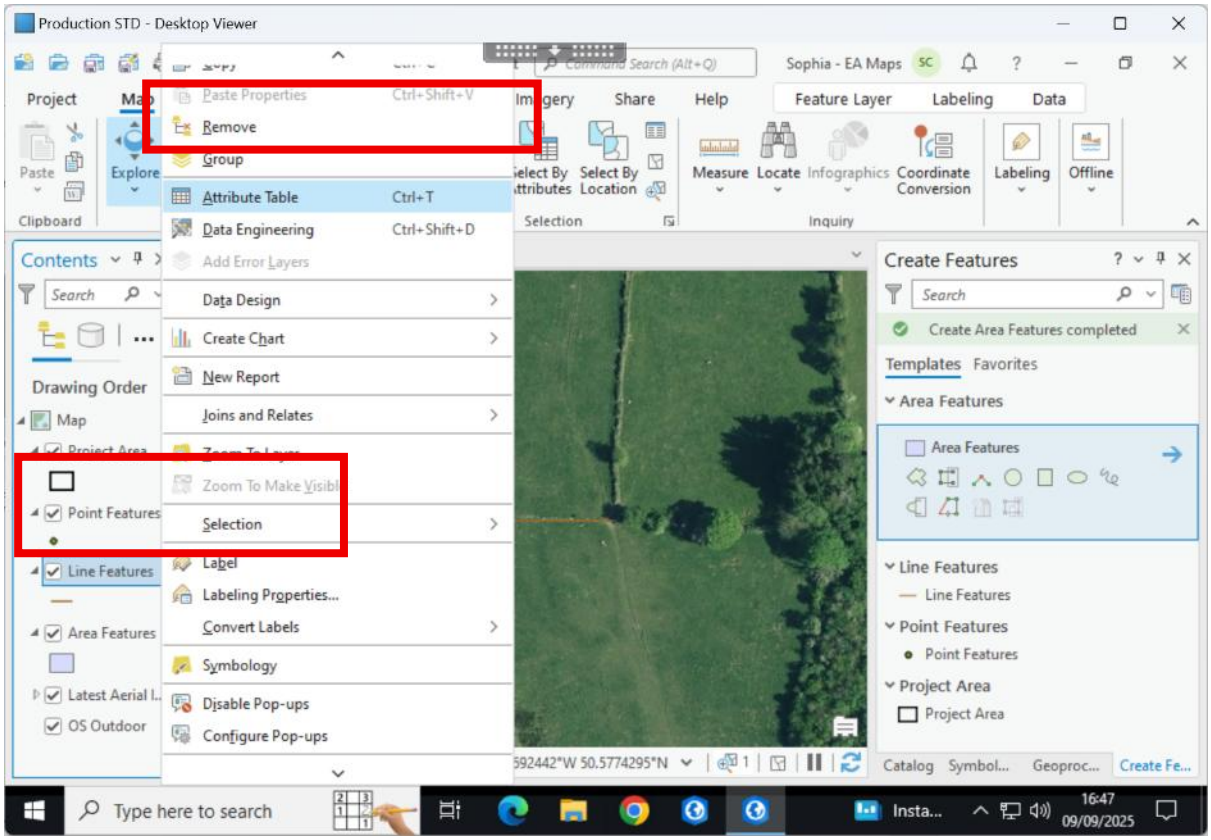
a. The cursor will again then change into a ‘cross’ icon. As we will be using a line feature type to digitise a hedgerow for this example, click on the map to draw the first node of the feature and continue on to draw the remaining node(s) as needed to complete the new line feature. The most recent node will be coloured ‘red’ and the saved nodes will show as ‘green’ as you work though the features length.

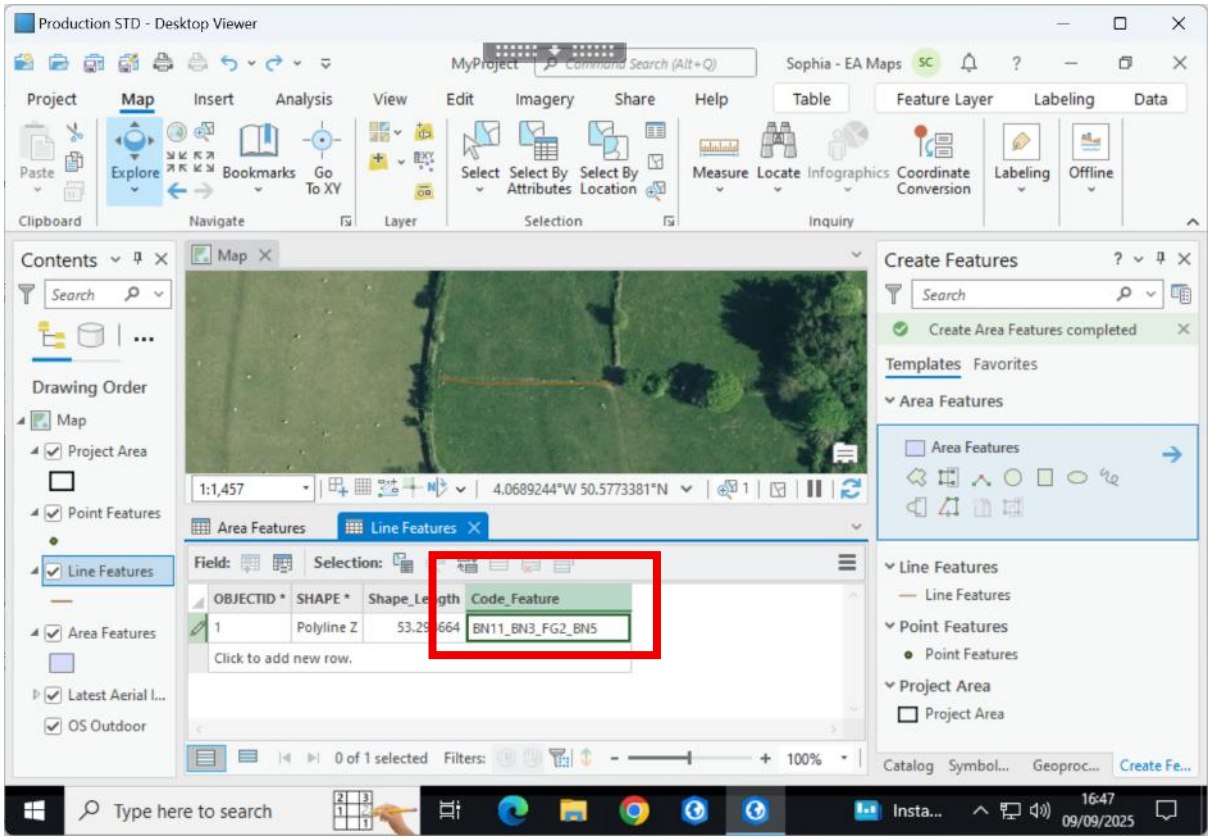


b. Once you have marked out the last node, double click, and the new line will highlight turquoise in colour.



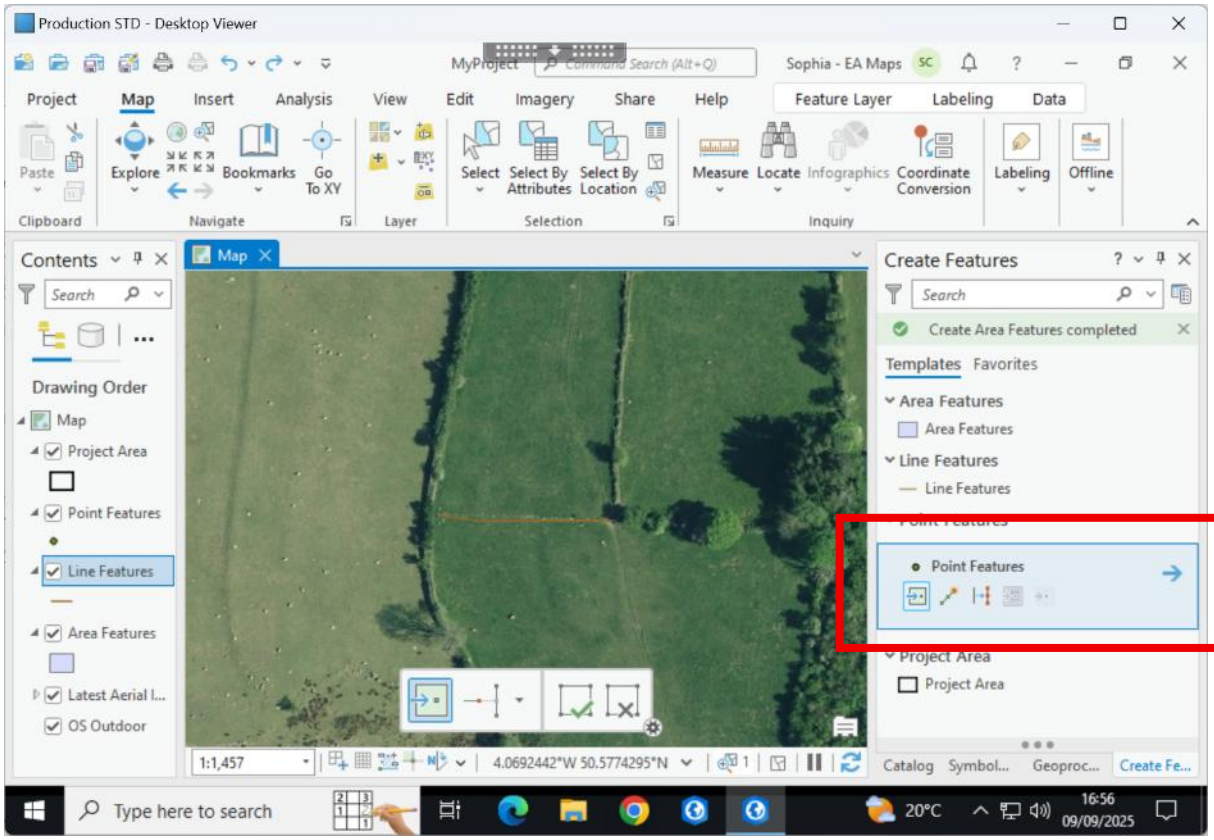
c. As before, open the attribute table and input the desired 'Code_Features' metadata. Use icatonline.uk/guide and follow the instructions there to find the latest keywords.



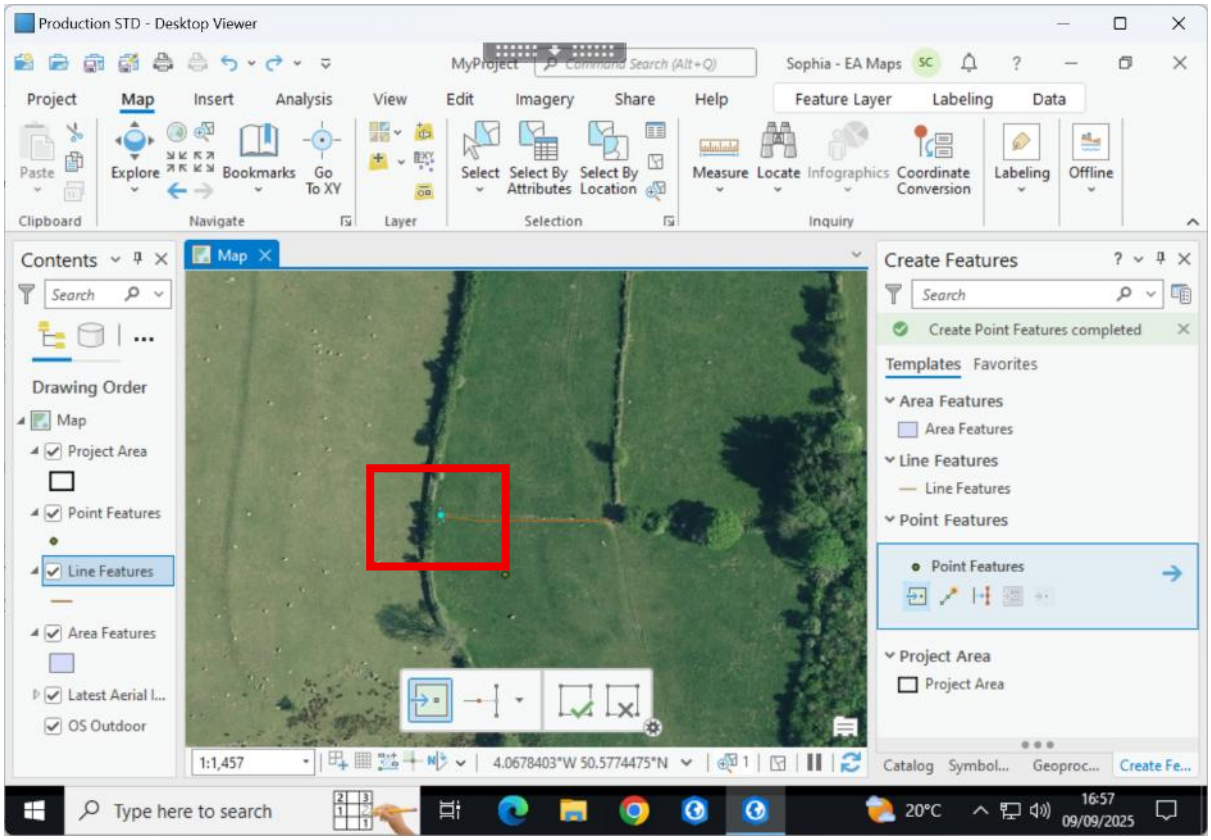


In this case, we have coded this feature as: 'Planting new hedges on earth bank with both sides of fencing with sheep netting and hedgerow laying every 7 years.'

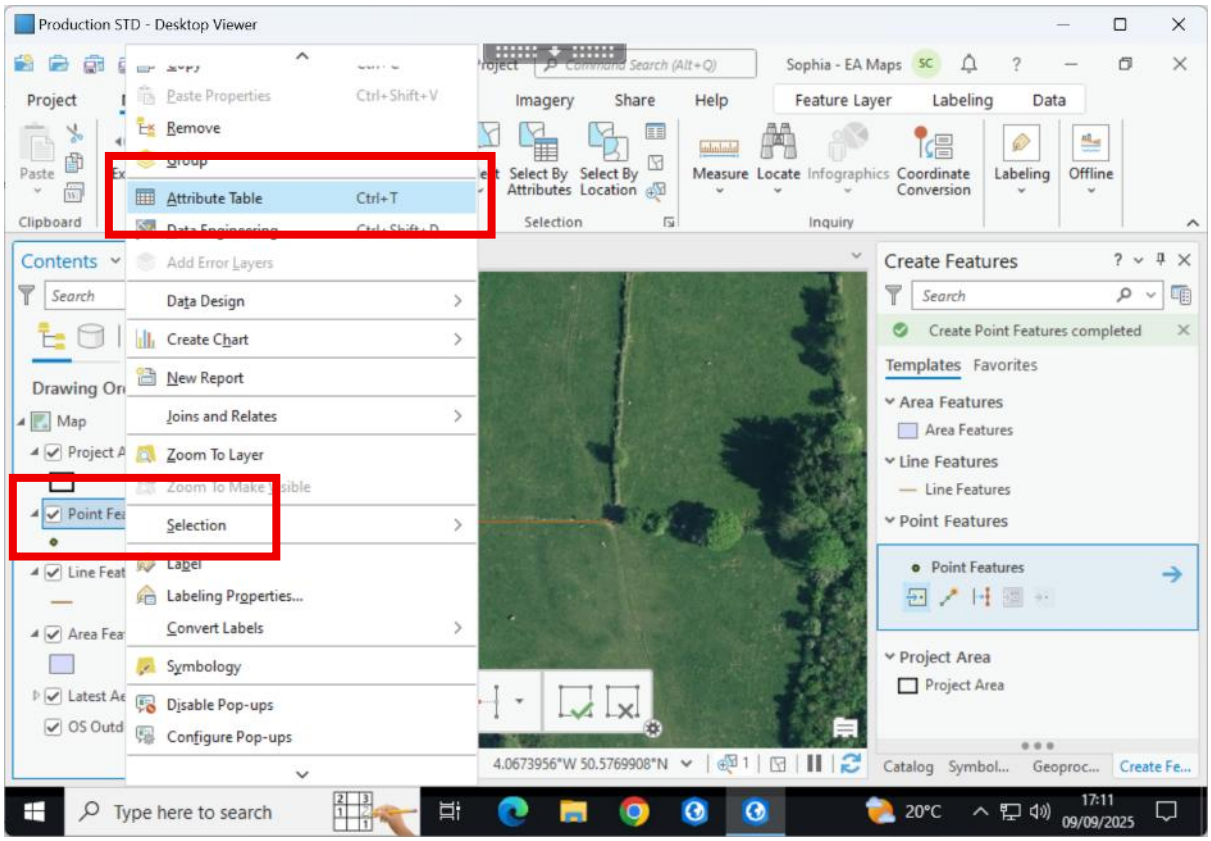
7. To create 'point' features, again, go to the 'Create Features' pane however click on 'point features'.

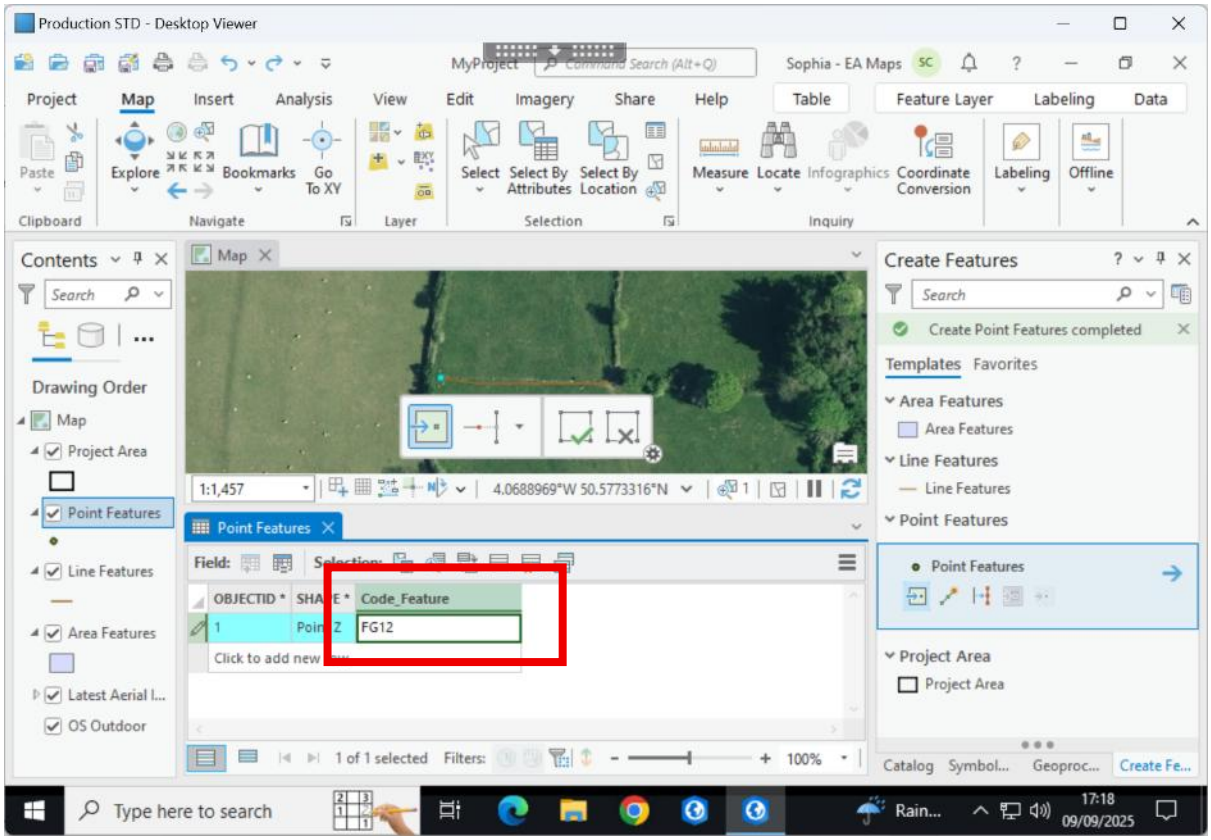


a. The cursor will again then change into a ‘cross’ icon. As we will be using a point feature type to digitise a gateway for this example, click on the map once to draw a singular point node of the feature, which will highlight turquoise in colour.



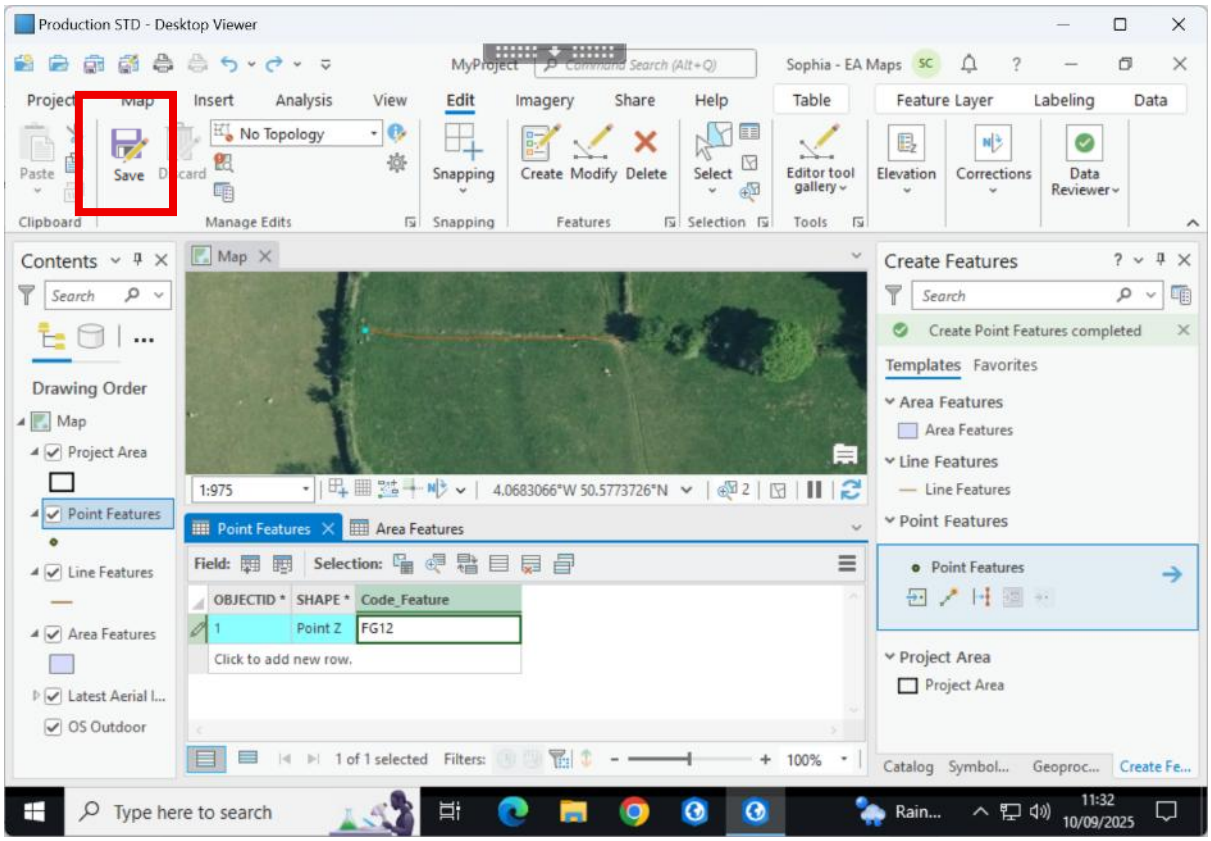
b. As before, open the attribute table and input the desired ‘Code_Features’, Use icatonline.uk/guide and follow the instructions there to find the latest keywords.





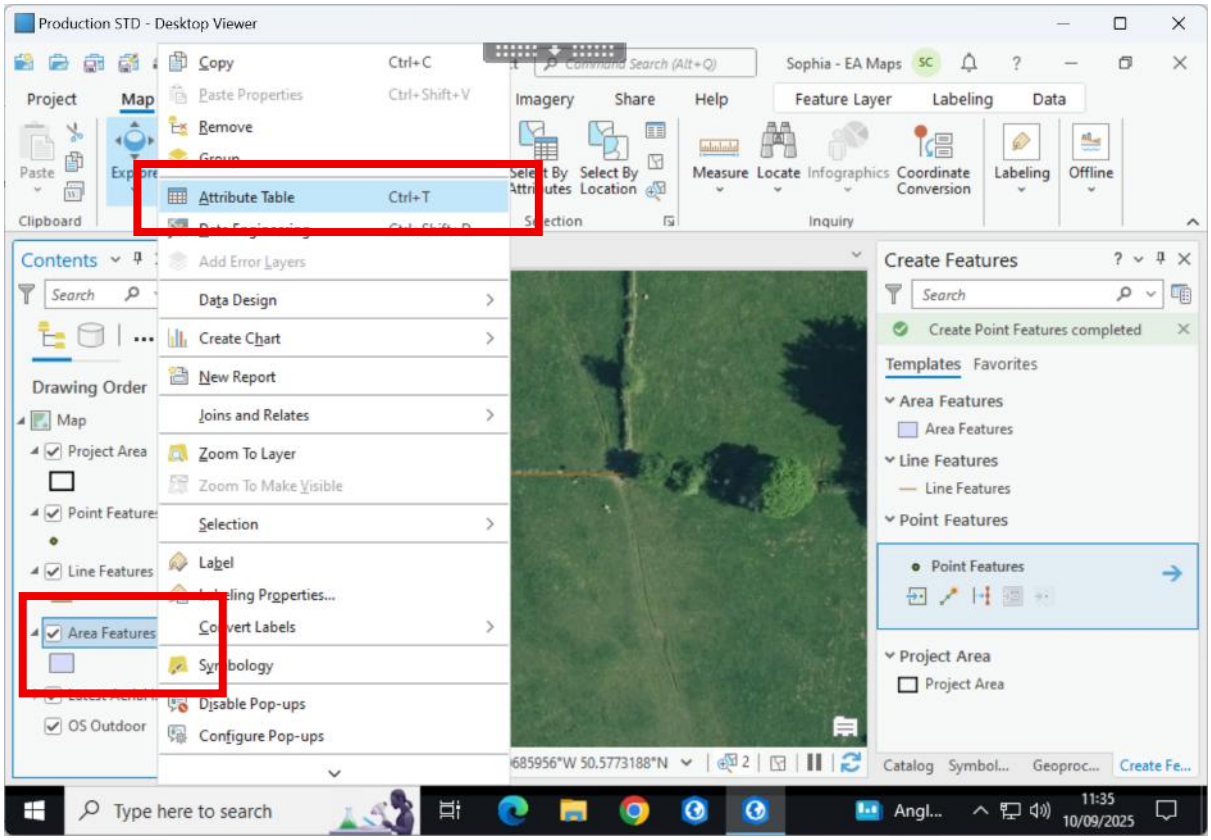
In this case, we have coded this feature as: 'NBS Supporting Wooden Field Gateway'.

Save your edits each time under the 'Edit' tab using the save icon.

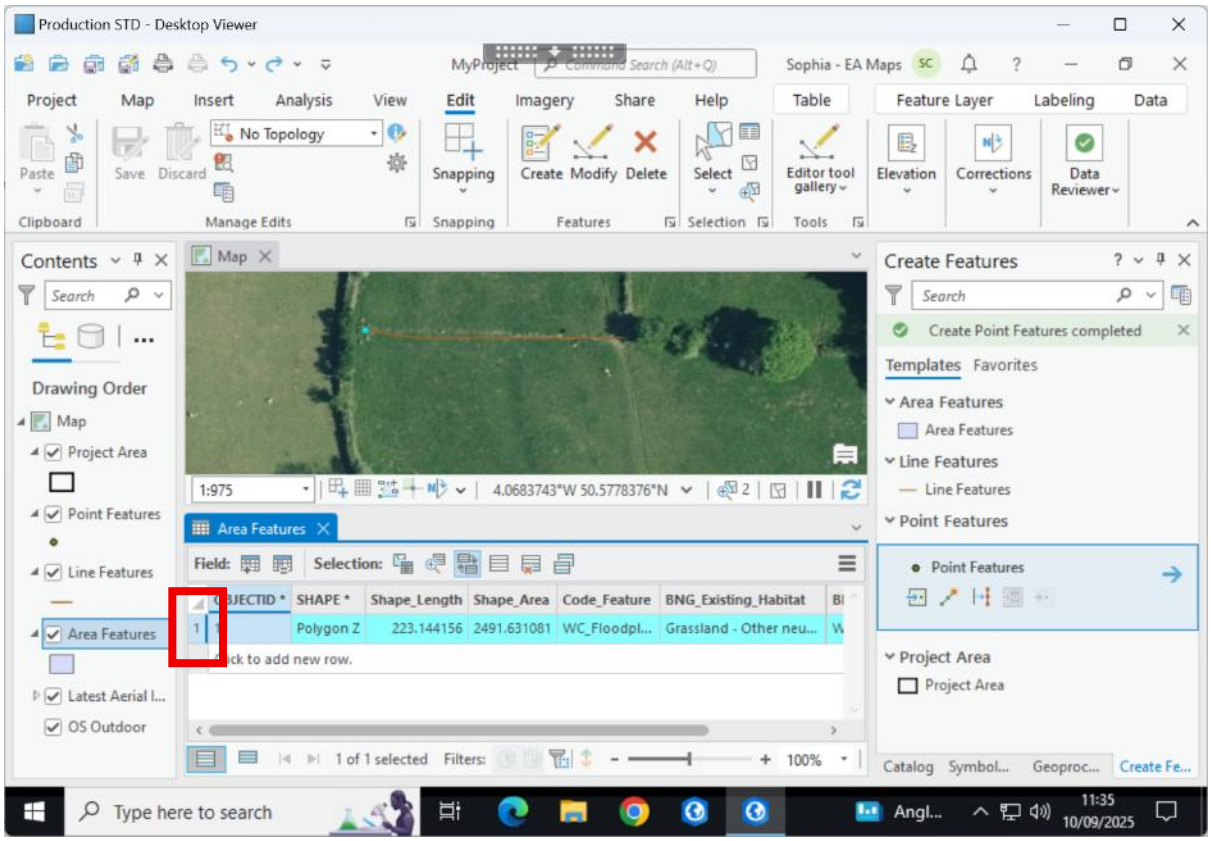


How to Export the Attribute Table

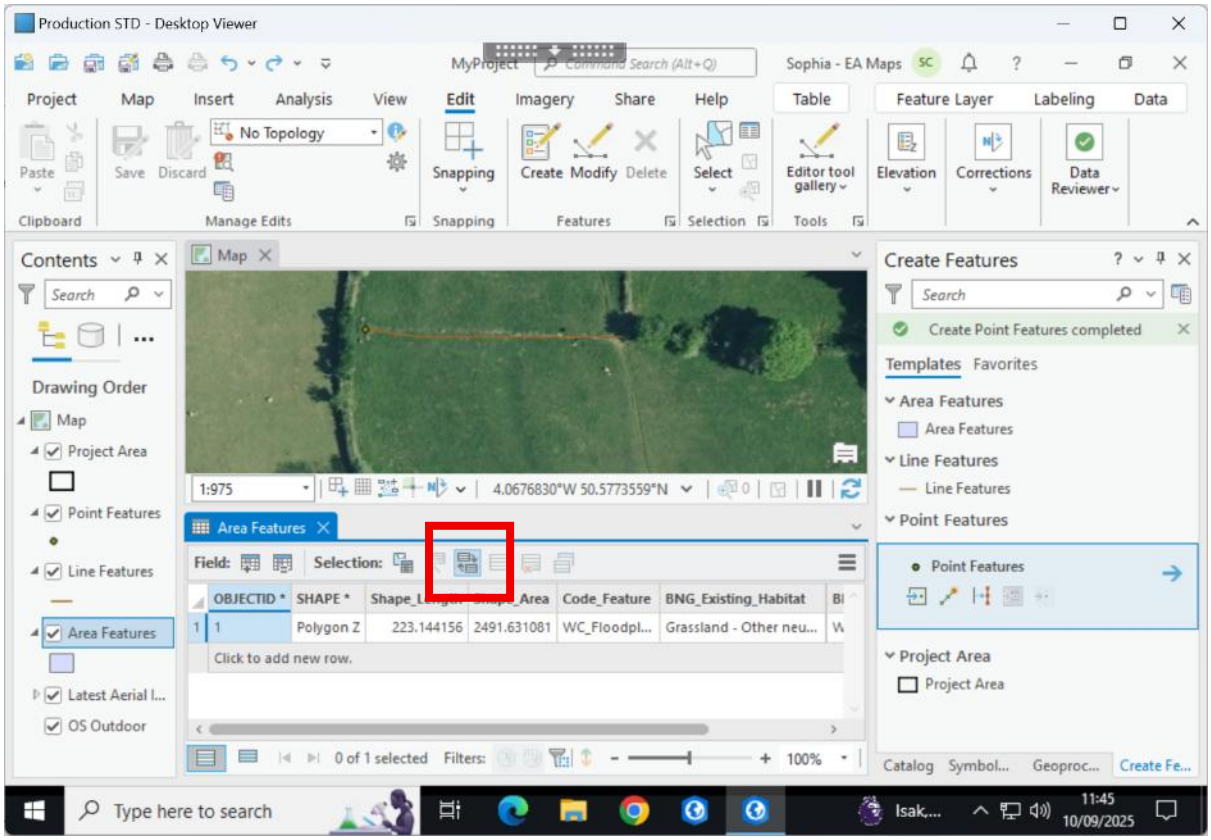
1. Open the attribute table for the feature you would like to export by right clicking on corresponding layer in the Contents pane. For this example, we will export ‘Area Features’.



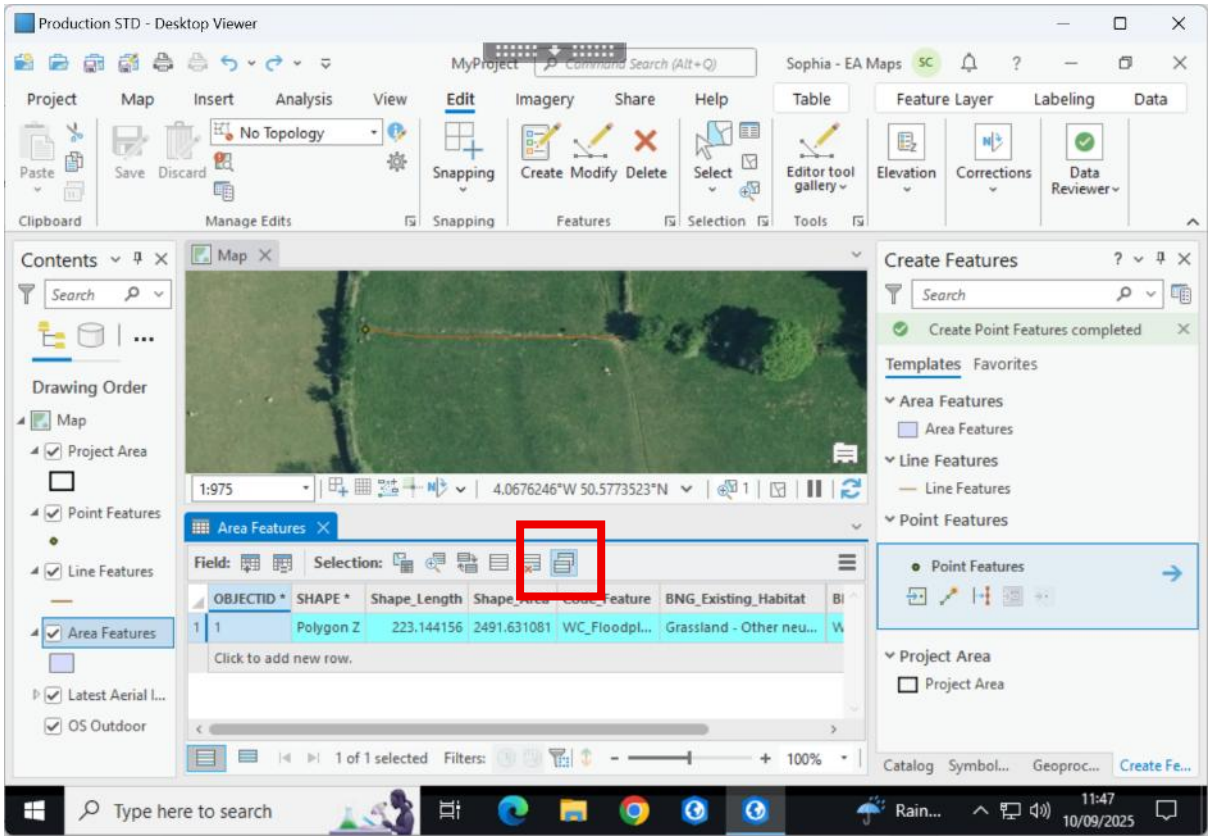
2. Highlight all features you would like to export by either...
    a. Clicking on each row or



    b. Clicking the ‘Switch Selection’ button, to select all rows at the same time.

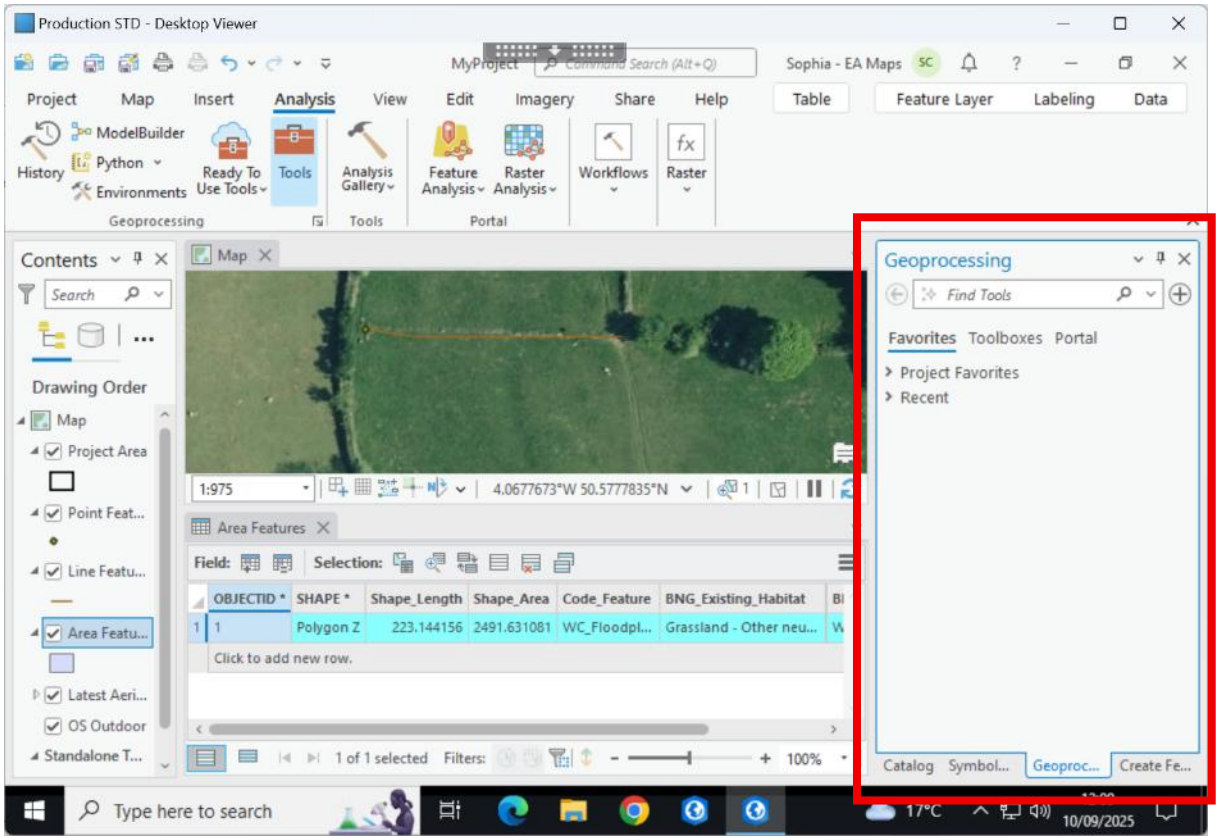


3. Then either...
    a. ‘Copy’ and ‘Paste’
        i. Click ‘copy’ to copy the selected features and paste into cell A1 of an excel spreadsheet.

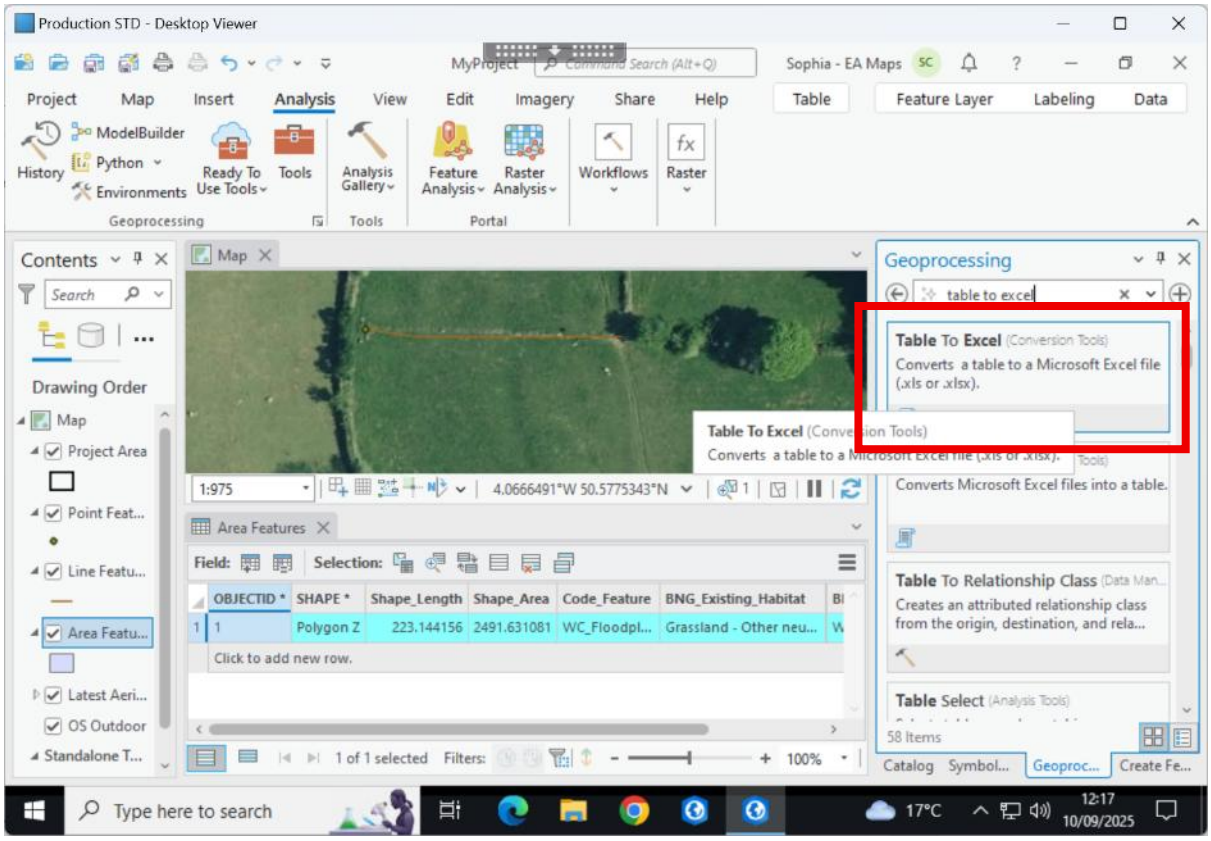


b. Geoprocessing

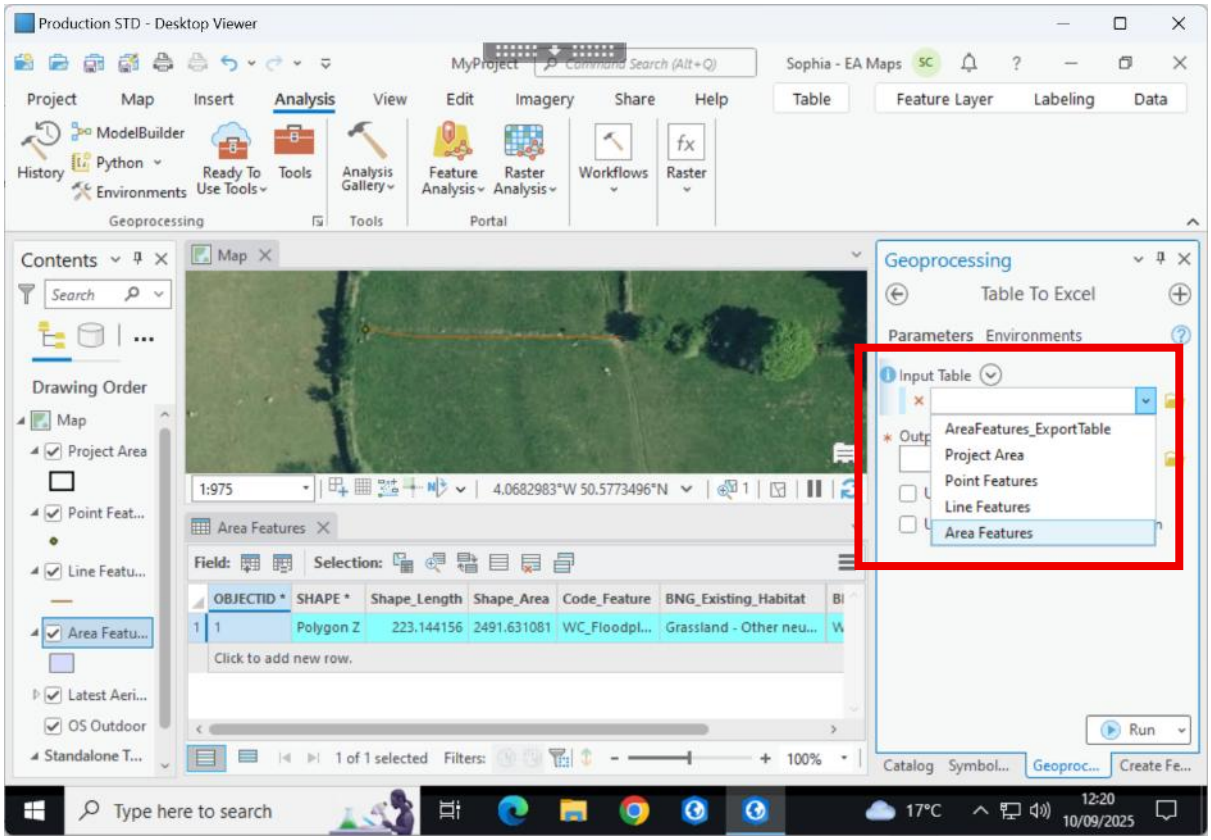
i. Under the ‘Analysis’ tab, click ‘Tools’. This will bring up the ‘Geoprocessing’ pane to the right.



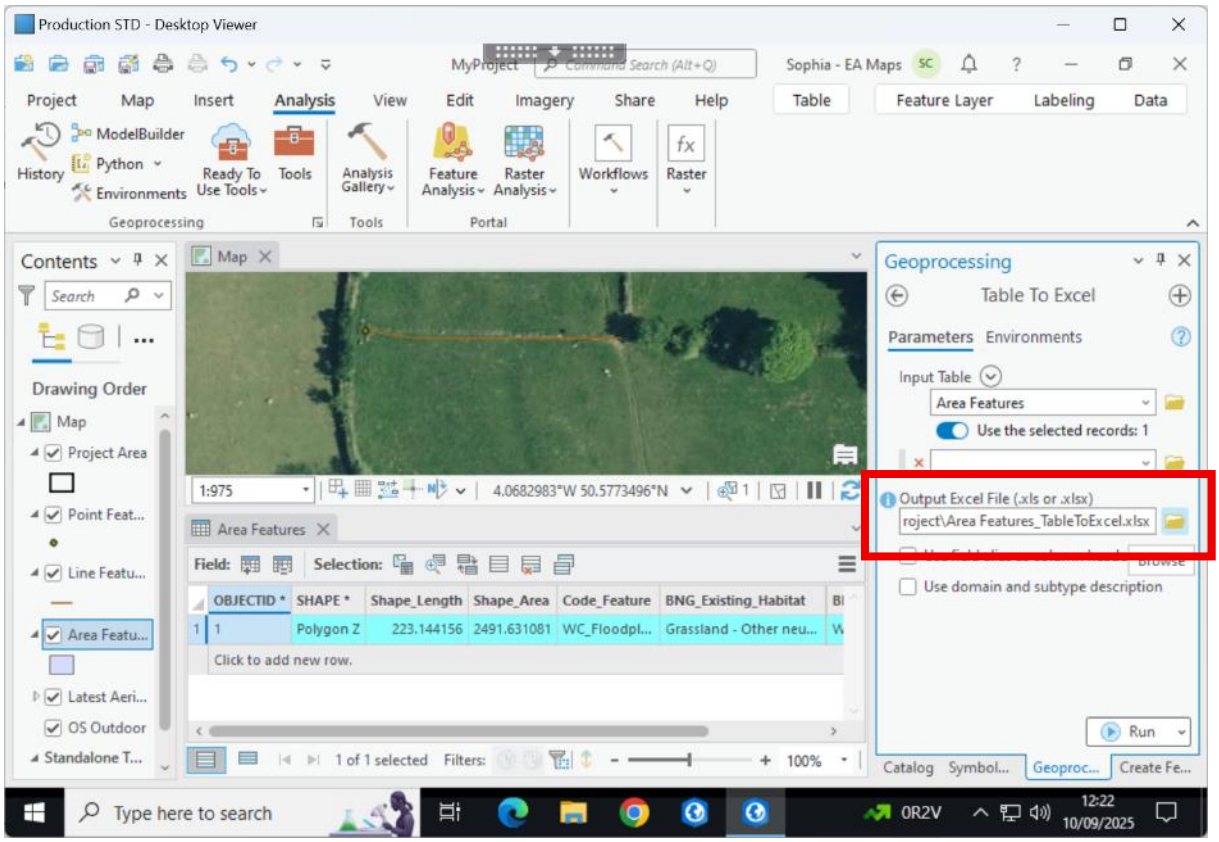
ii. Type ‘Table to Excel’ in the search bar and click ‘Table to Excel (Conversion Tools)’



iii. Select the table for exporting from the dropdown menu

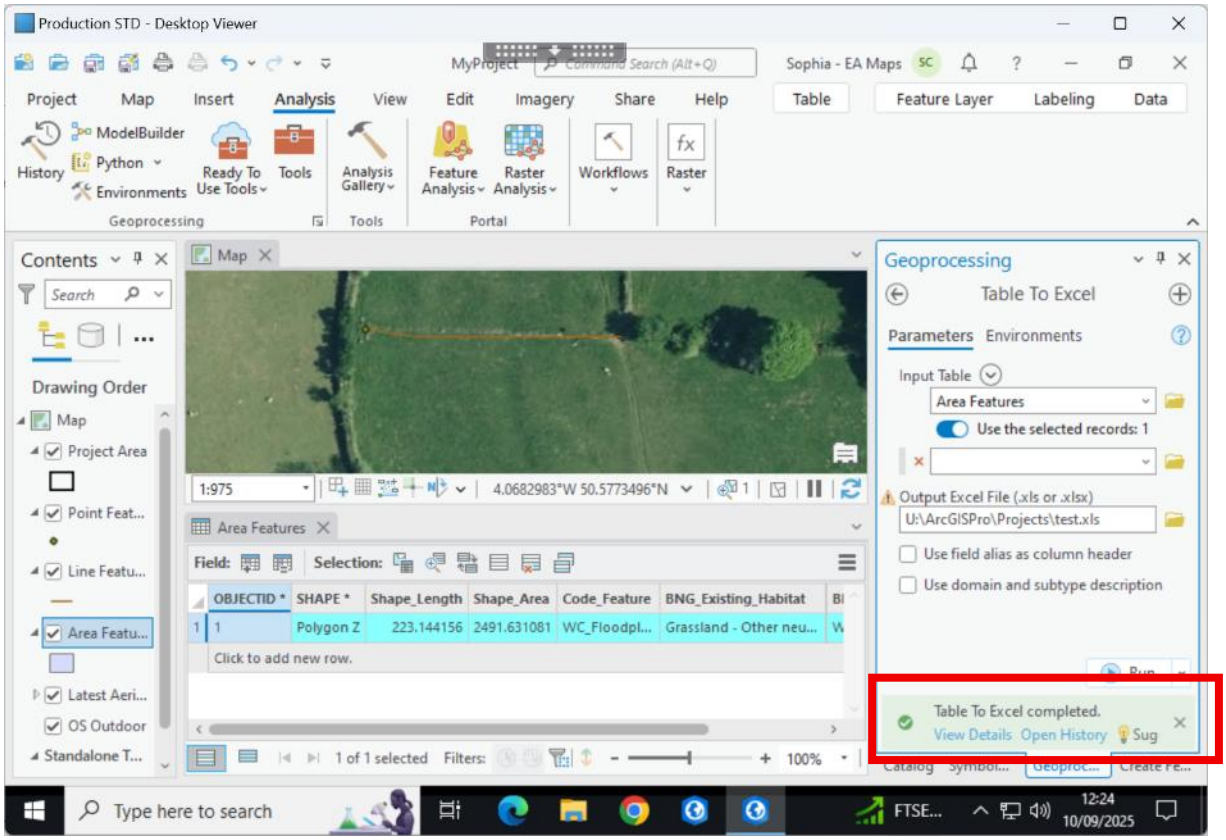


iv. Click browse to save in a suitable location and rename if suitable.



v. Click ‘Run’

vi. When the following green box appears, the table has been created and saved successfully. Use your file explorer to navigate to the saved location to retrieve the file.


Production STD - Desktop Viewer
Project
Map
Insert
Analysis
View
Edit
Imagery
Share
Help
Table
Feature Layer
Labeling
Data
History
ModelBuilder
Python
Environments
Ready To Use Tools
Tools
Analysis Gallery
Feature Analysis
Raster Analysis
Workflows
Raster
Geoprocessing
Tools
Portal
Contents
Drawing Order
Map
Project Area
Point Feat...
Line Featu...
Area Featu...
Latest Aeri...
OS Outdoor
Standalone T...
Map
1:975
4.0682983°W 50.5773496°N
Area Features
Field:
Selection:
OBJECTID *
SHAPE *
Shape_Length
Shape_Area
Code_Feature
BNG_Existing_Habitat
1
Polygon Z
223.144156
2491.631081
WC_Floodpl...
Grassland - Other neu...
Click to add new row.
1 of 1 selected
Filters:
100%
Geoprocessing
Table To Excel
Parameters
Environments
Input Table
Area Features
Use the selected records: 1
Output Excel File (.xls or .xlsx)
U:\ArcGISPro\Projects\test.xls
Use field alias as column header
Use domain and subtype description
Run
Table To Excel completed.
View Details
Open History
Sug
Type here to search
FTSE...
12:24
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