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Prof. Joshua Viers

ENGR-180-01

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LAB3-2

Why might it be beneficial to have a workflow visualization? Who, specifically, may benefit from a workflow visualization?

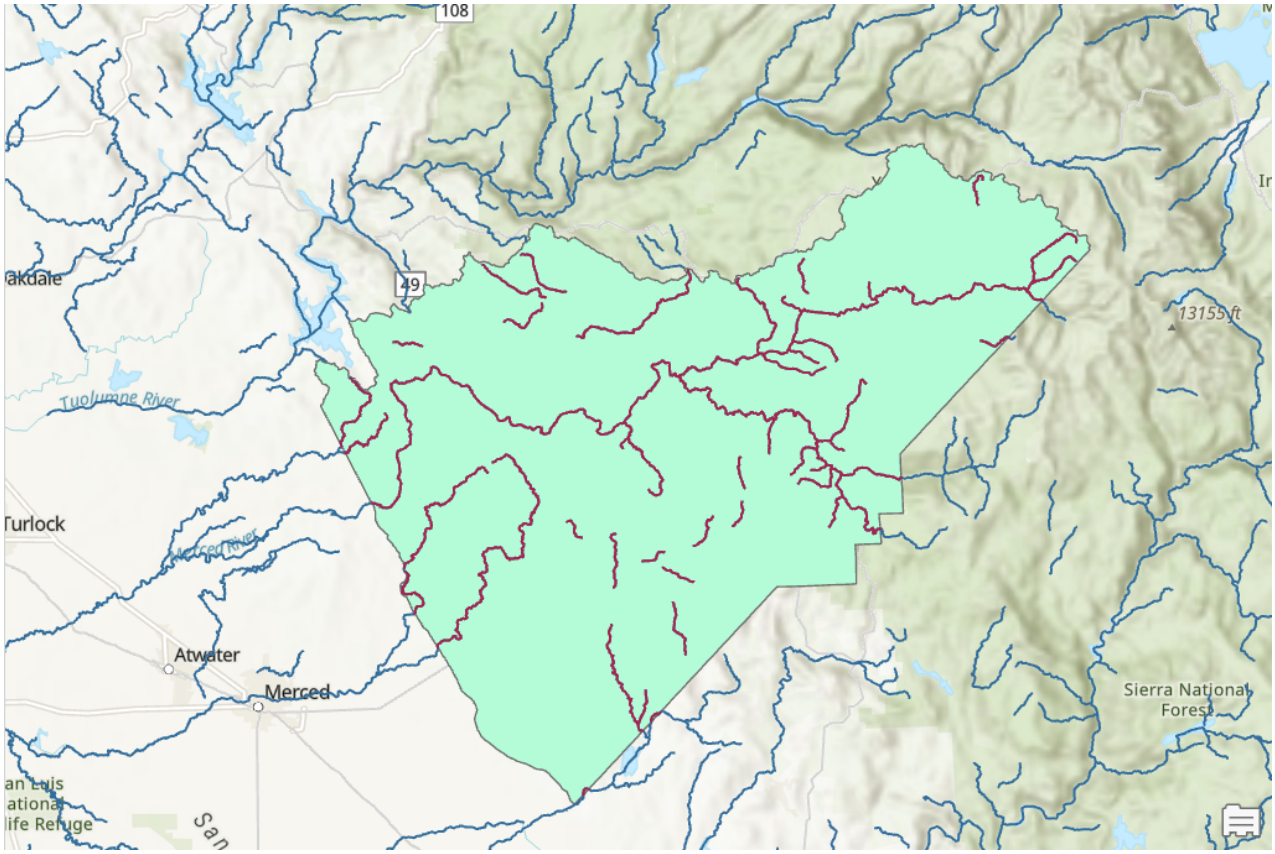
It is beneficial to have a workflow visualization because it simplifies the work process, it also makes it easier to debug projects, and you can quickly edit the model without affecting other models or components reliant on it. Workflow visualization benefits everyone, from the creator to the collaborators, but I believe, collaborators would benefit the most, because you can convey the work process easier since it's in a graphical form, so it's easier to understand what was done for previous steps.

Using complete sentences, describe a scenario in which you, as an engineer, would want to design and replicate a geospatial process on an annual basis

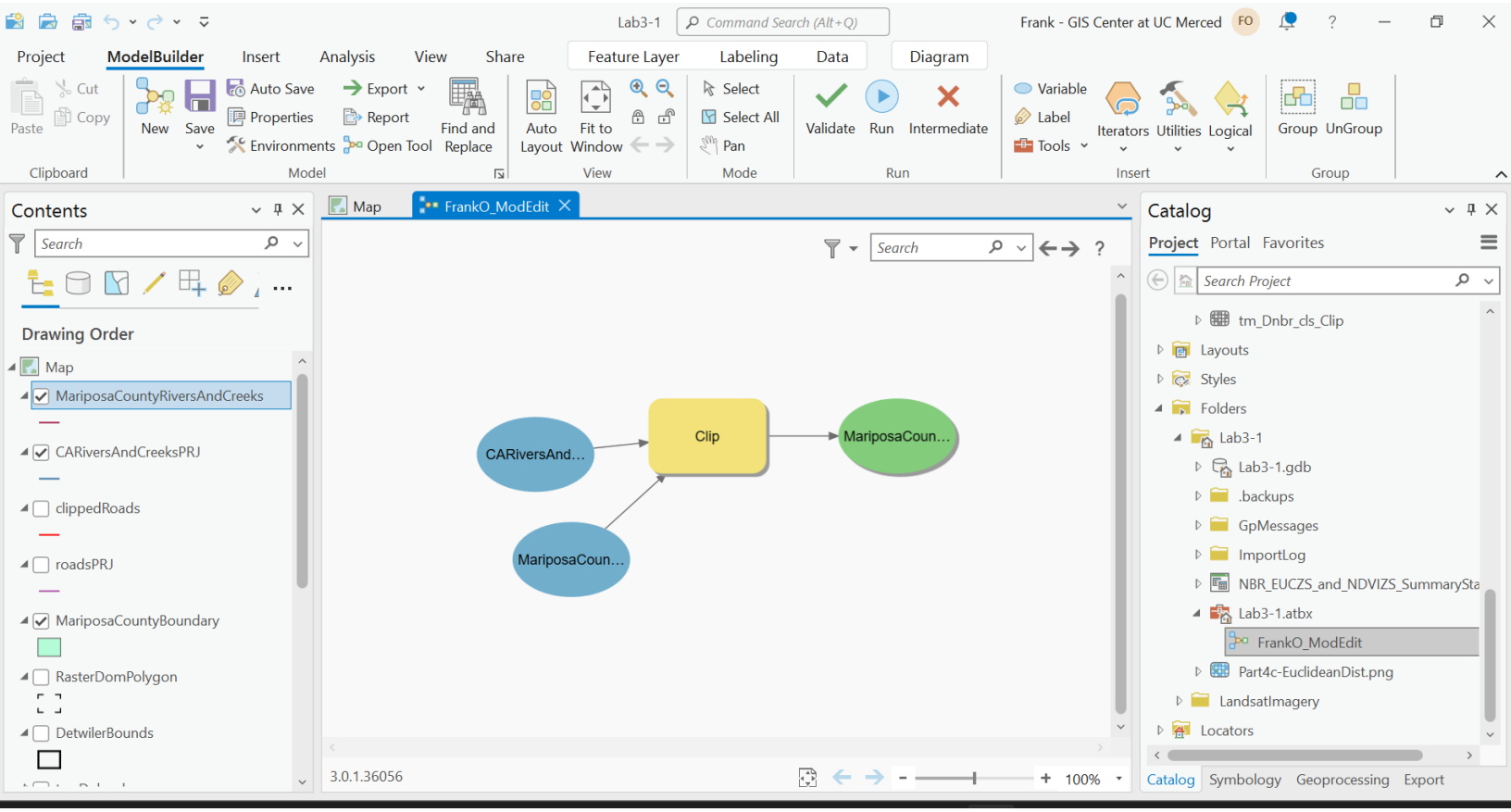
I would like to design a geospatial process on the different ways terrain changes throughout the year, and I would like to replicate this process every 3 months, so as to compare the changes over the 3months, for later analysis.

Using complete sentences, describe two benefits of coding using ArcPy/Python.

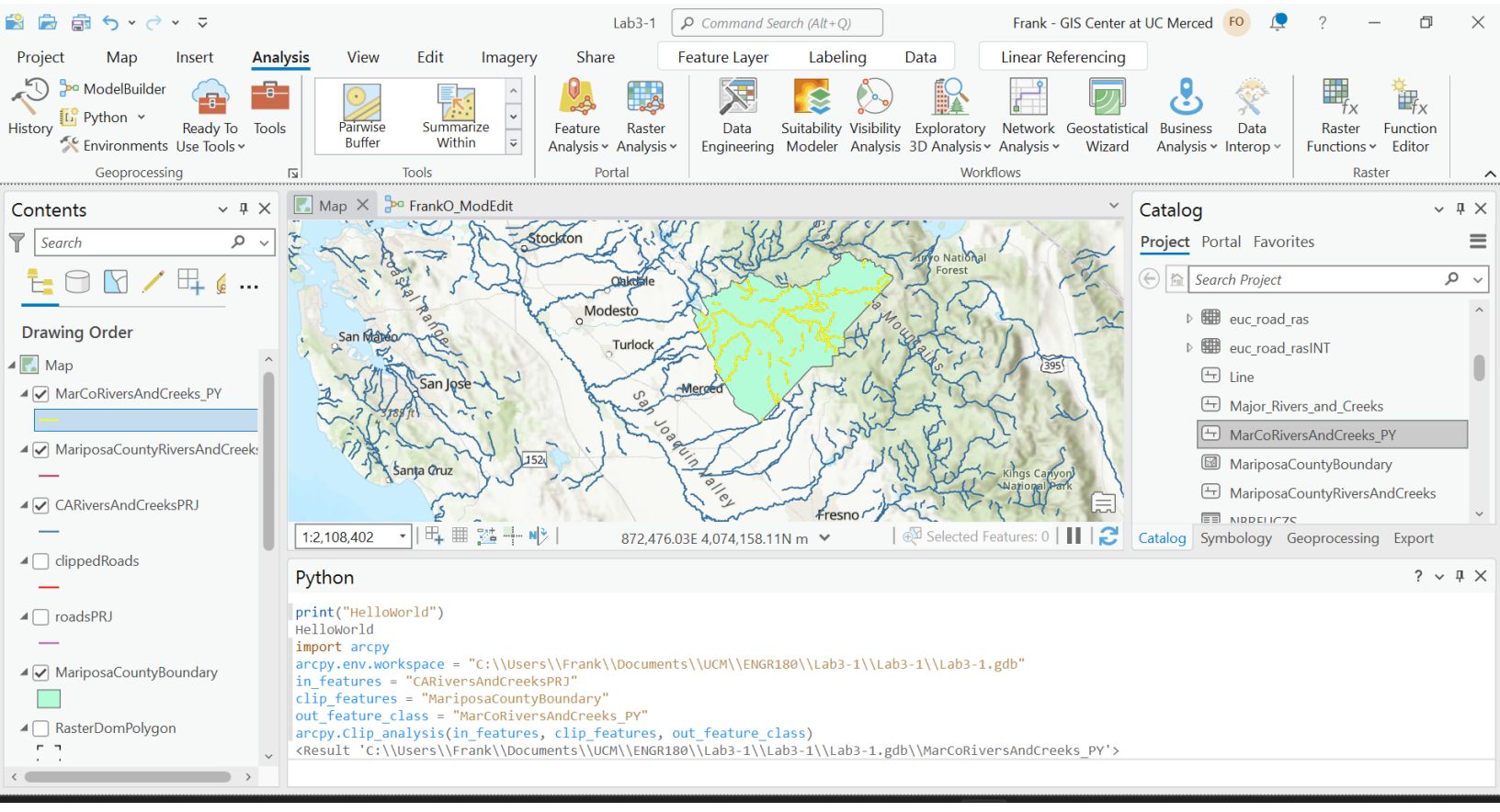
The first benefit I consider when it comes to coding using Python's Arcpy library is that since we're using Python it is really easy to understand what's going on in the back end, since I could just step through the debugger line by line and see what is actually going on, I am less prone to error. Another benefit of coding using ArcPy/Python is that there is documentation that one can always refer to, when dealing with related ArcPy functions, that shows what values go where, and how the overall function works.



Above is a screenshot of the clipped rivers in my map frame.



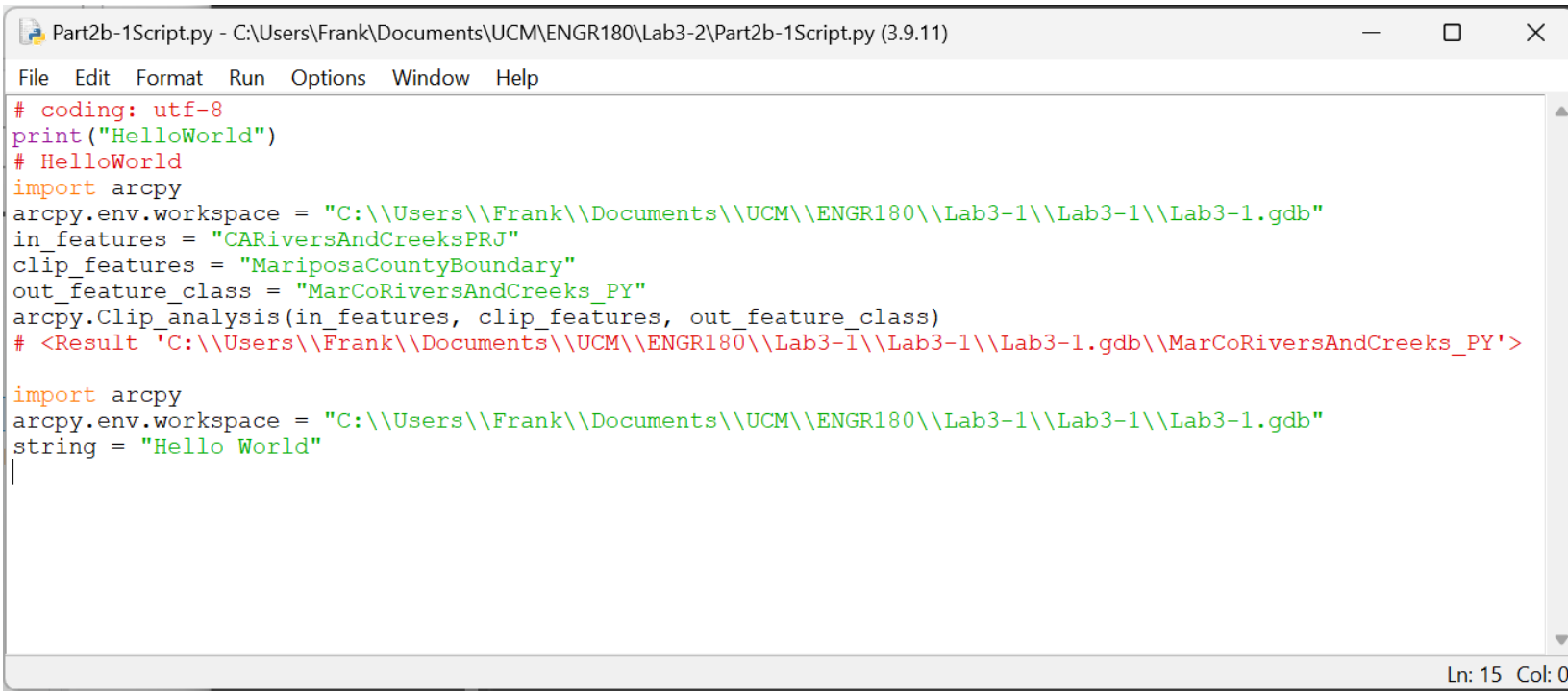
Above is a screenshot of my edited model.



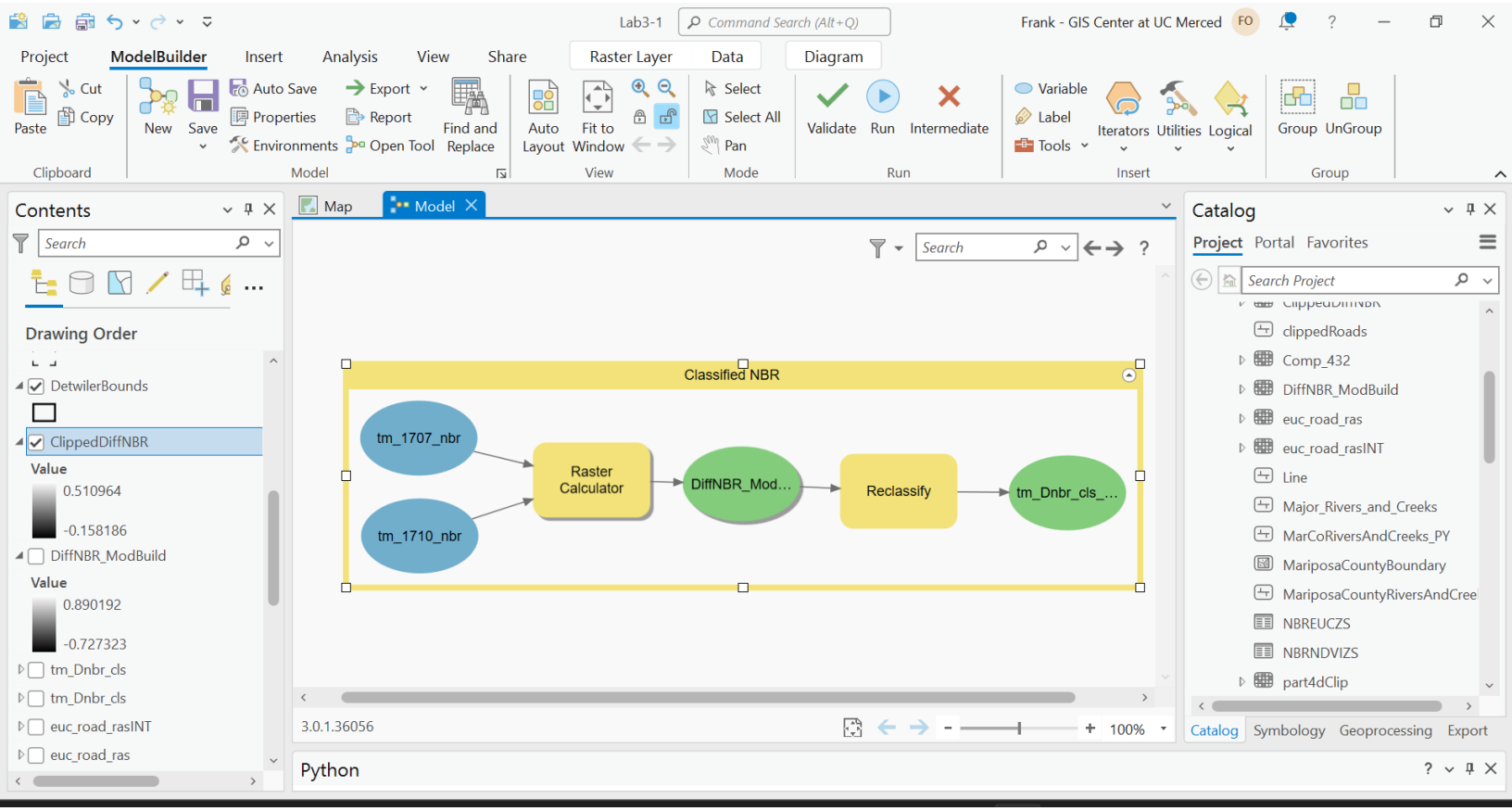
Above is a screenshot of my python window and code, with my output.

In complete sentences, identify whether you preferred clipping the rivers using ModelBuilder or Python (there is no wrong answer). Explain the reasoning behind your preference.

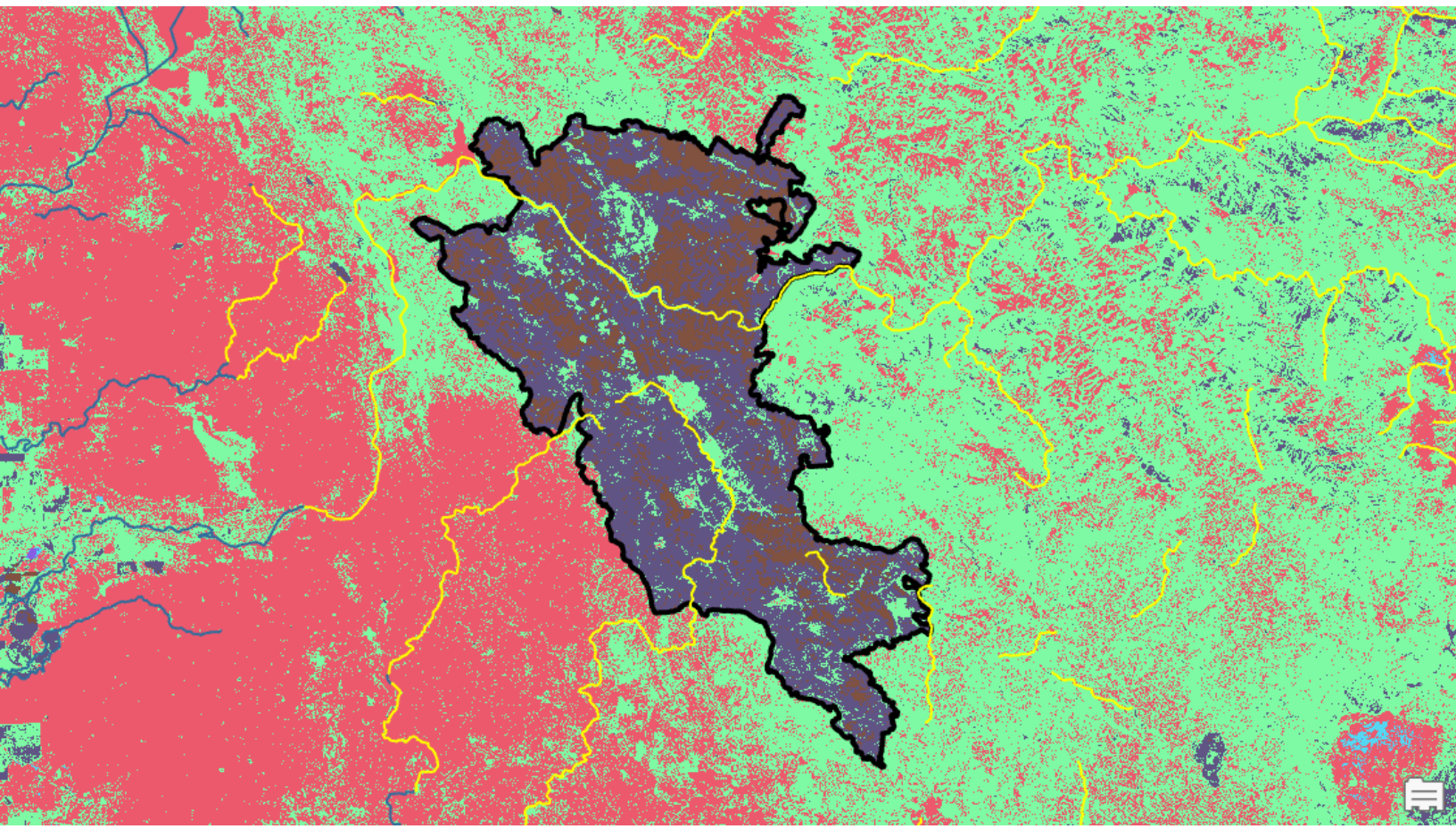
I preferred clipping the rivers using the ModelBuilder because of the graphical aspect, I don't mind using Python either, but I believe clipping the rivers was faster and more effective with ModelBuilder. Although I will be using the two interchangeably in the future, as I have no preference, but for the sake of the question I choose Modelbuilder since it can not only be reproduced but also be presented as is for demonstration sake.



Above is the screenshot for part 2b-1.



Above is a screenshot of my Classified NBR Model.



Above is the screenshot of my output raster and below is the part 5 challenge, completed

Challenge A.