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Geog 93

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Creating an Easy Way to Access the Folsom Bike Trails

Summary and Purpose

The goal of my project was to create a working ArcGis Online web application that would show you the closest part of the Folsom bike trails to you. I found that this was needed after I moved to Folsom and Google Maps did not know the trails making it very difficult to navigate even while using the city's downloadable maps. This project consisted of creating a user freindly map of the trails in arcgis, then uploading that map and layout to ArcGis Online and creating a web application with the available data. Although many difficulties were found along the way the end product is a working web application that will give you directions from your location to the closest part of the Folsom bike trails that are in the set up feature class.

Project Creation

Originally when I was choosing the project I thought I had found the Folsom trails already on the Sacramento county database but it was just Folsom parks accessible by bike trails. This meant that I had to digitize all the trails into the map by hand. To start I created a file geodatabase for my final project then created a feature class for the bike trails. With this feature class using the creation tool I created lines representing the bike trails in Folsom. This means that

I was not able to get every single bike trail in Folsom into the map as the process became

incredibly painstaking as shown in the picture below.
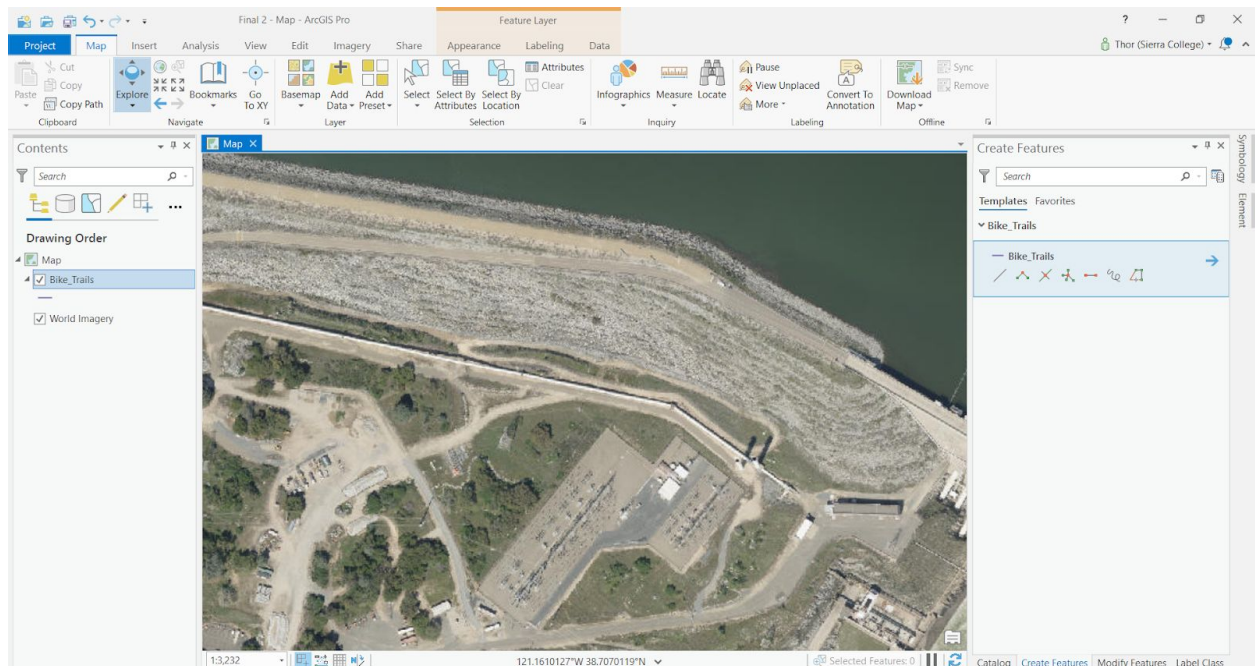
   As I was digitizing this data I decided to add the Folsom city limits into my map. Because

the city of Folsom does not have an open data portal I was forced to use county data for my

whole project. I was able to get the data for all the city limits in Sacramento County, although
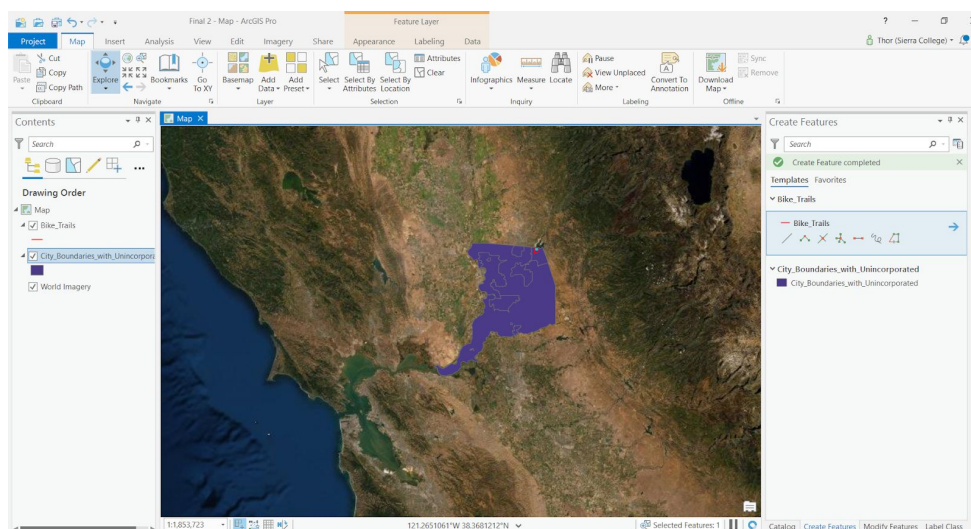
geoprocessing tools were not working on this data because of restrictions in place. I then used the feature class to feature class tool

to extract the city of Folsom from the county data to a feature class I was able to manipulate.

This is shown in the screenshot below. Once I had the city boundary in I felt more comfortable
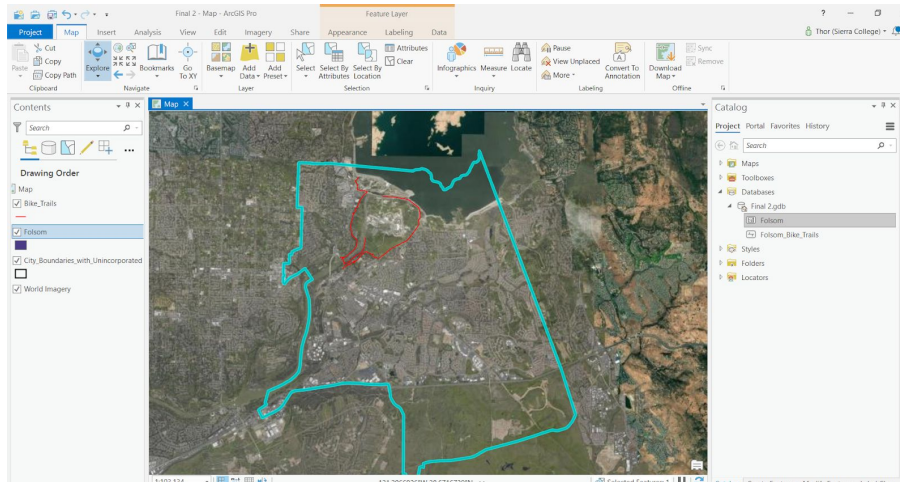
spending more and more time digitizing the bike trails into the map.

Once enough of the trails were input to create a useful map I had to dissolve all the lines together to form one. I used the buffer tool to take the bike trails line data and create another feature class with a road polygon with the size of the road. This created the look of roads on the
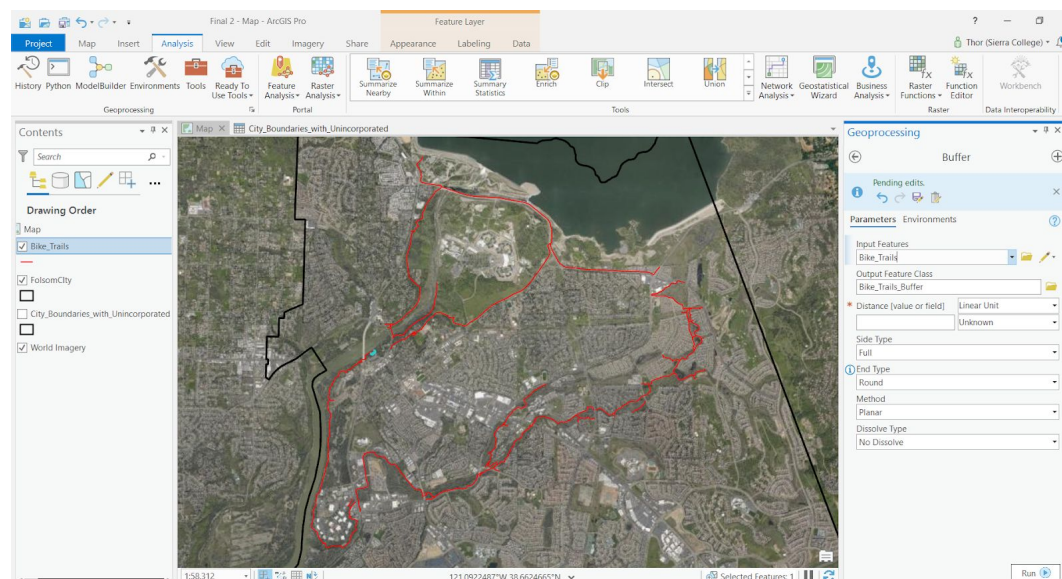
map which is shown below. I was finally close to being able to upload the map to

the web and start working on the web application. I first finished styling this map and created a

nice looking layout shown below.

Folsom Bike Trails
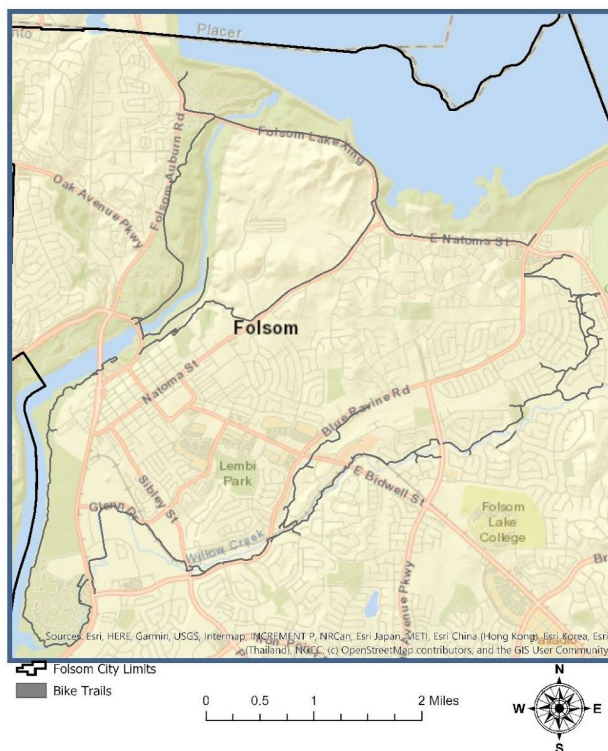
After getting a good looking map the next struggle was to create the online application. I was able to easily upload the map onto ArcGis Online and was able to access the data through the browser with no problem. I then created the web application using that map and when accessed the application had no feature layers. I realized that I did not check to see if I made my feature layers viewable to everyone through the feature tab. I then had to reupload the map and create a new application. This application had all the data and was ready to be changed and optimized. I then styled the map and added and adjusted all the widgets in the app. The main widget in the app is the near me tool. This allows the user to get directions from an input to the closest feature class you programmed in. The final product is a web application able to give you directions to the nearest Folsom bike trail.

This project taught me that online map creation was a lot less intimidating than I thought it would be. I learned useful ways to manipulate data into being easier to use for projects down

the line. I also learned that keeping yourself and your data organized is very beneficial and can

be crucial to a painless process. Overall I am glad I was able to create something that is able to

be used in the end.