Laboratory 1 (Case Study 1-2)

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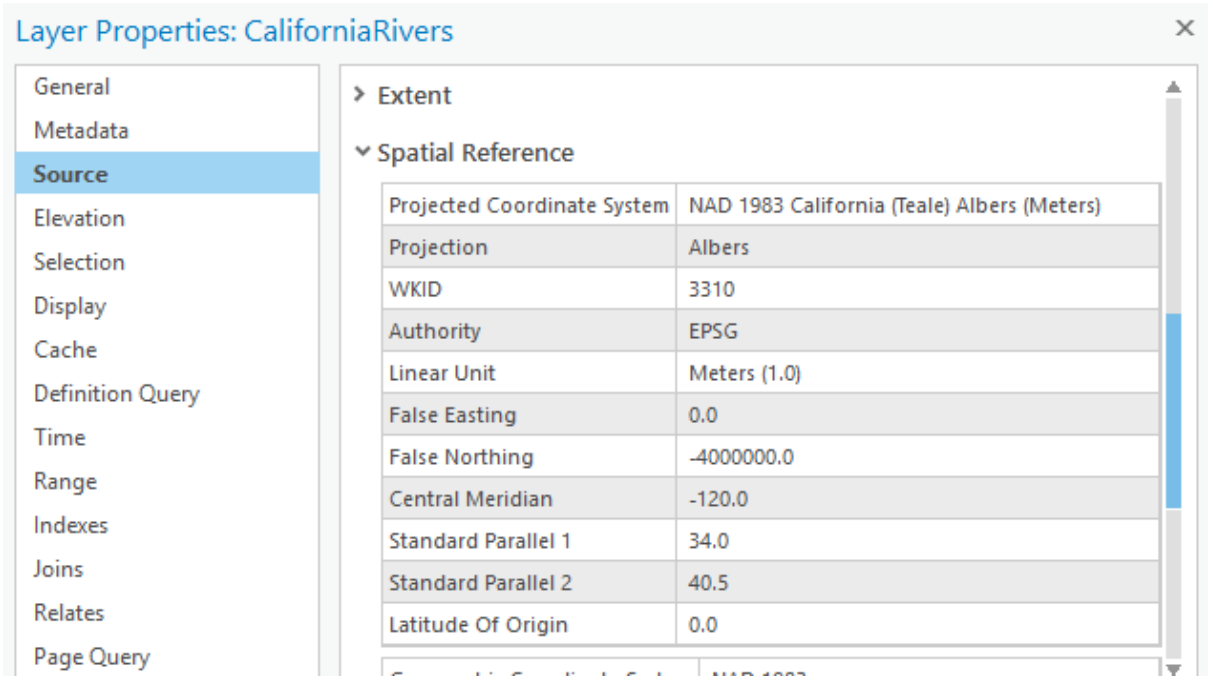
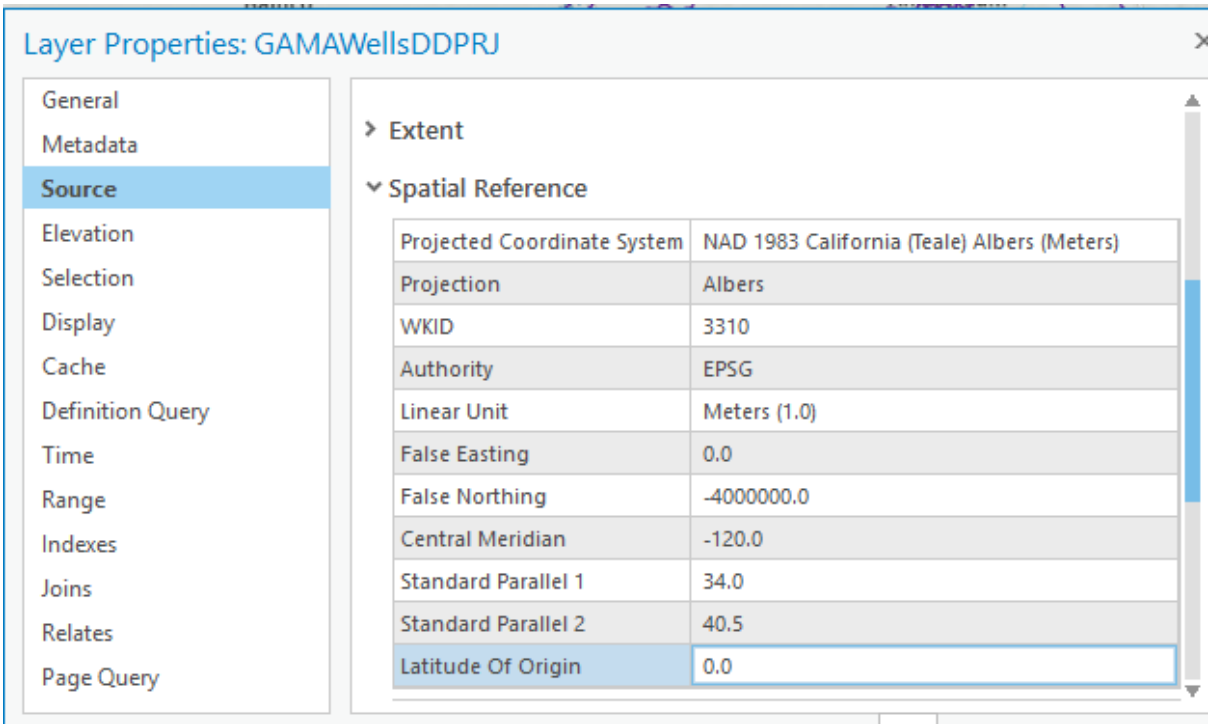
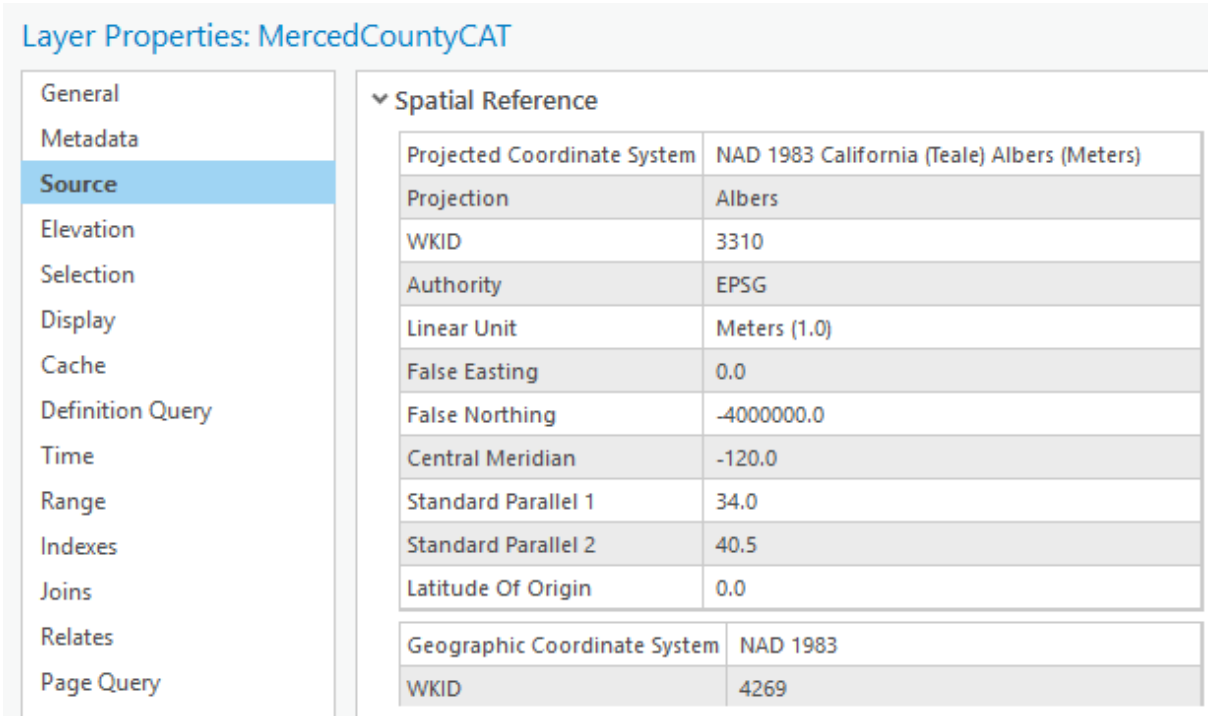
Date: 05/30/2022
Engr 180 Summer 2022

Deliverables:

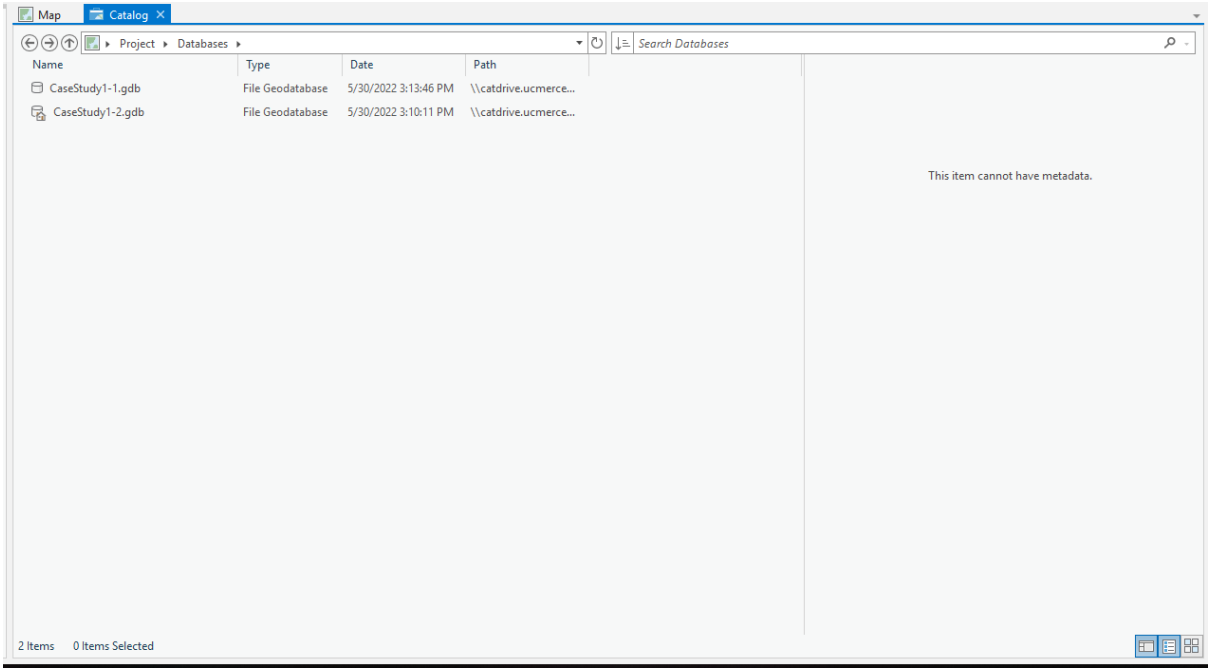
Submit screenshots verifying each layer is in the same projection

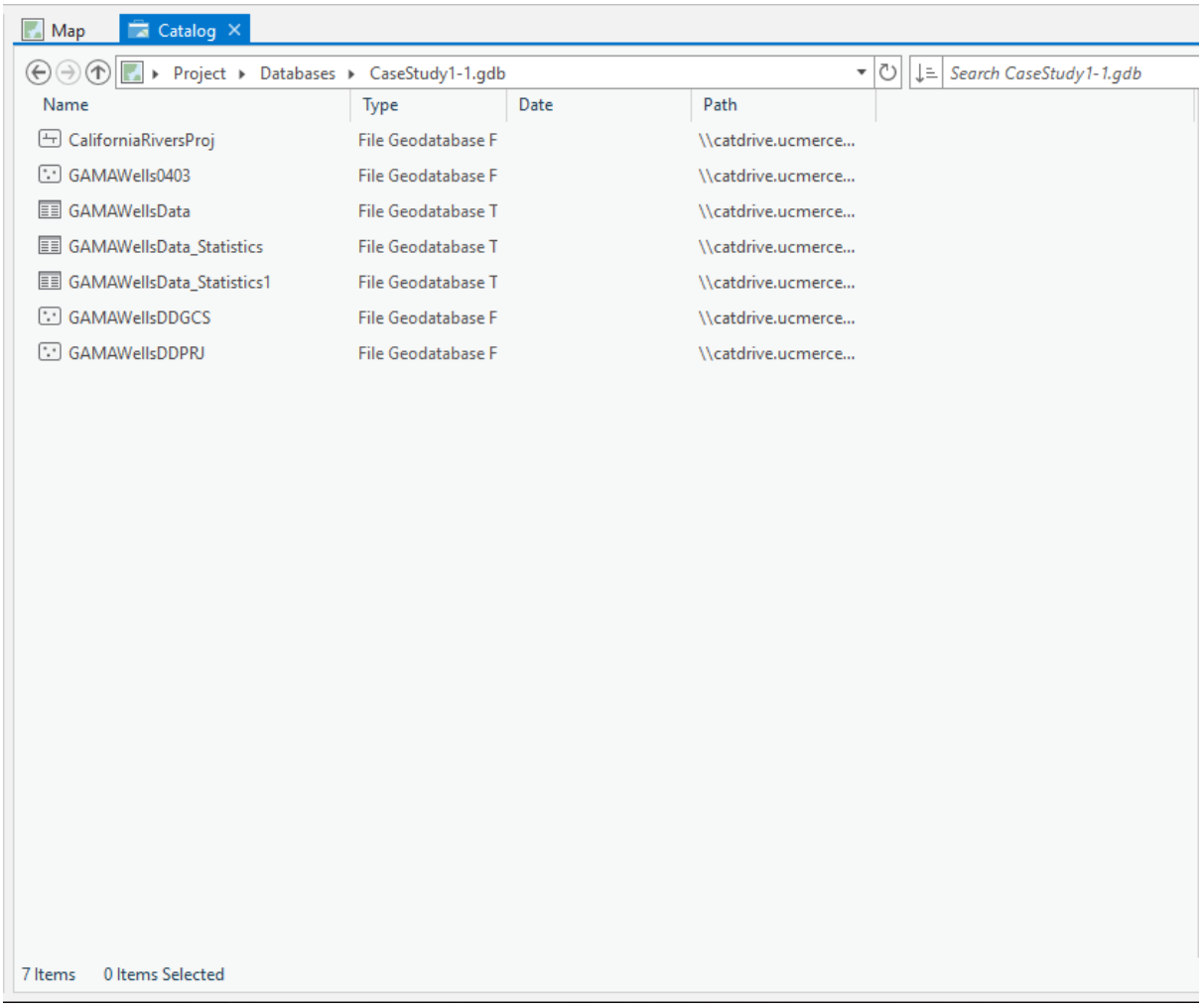


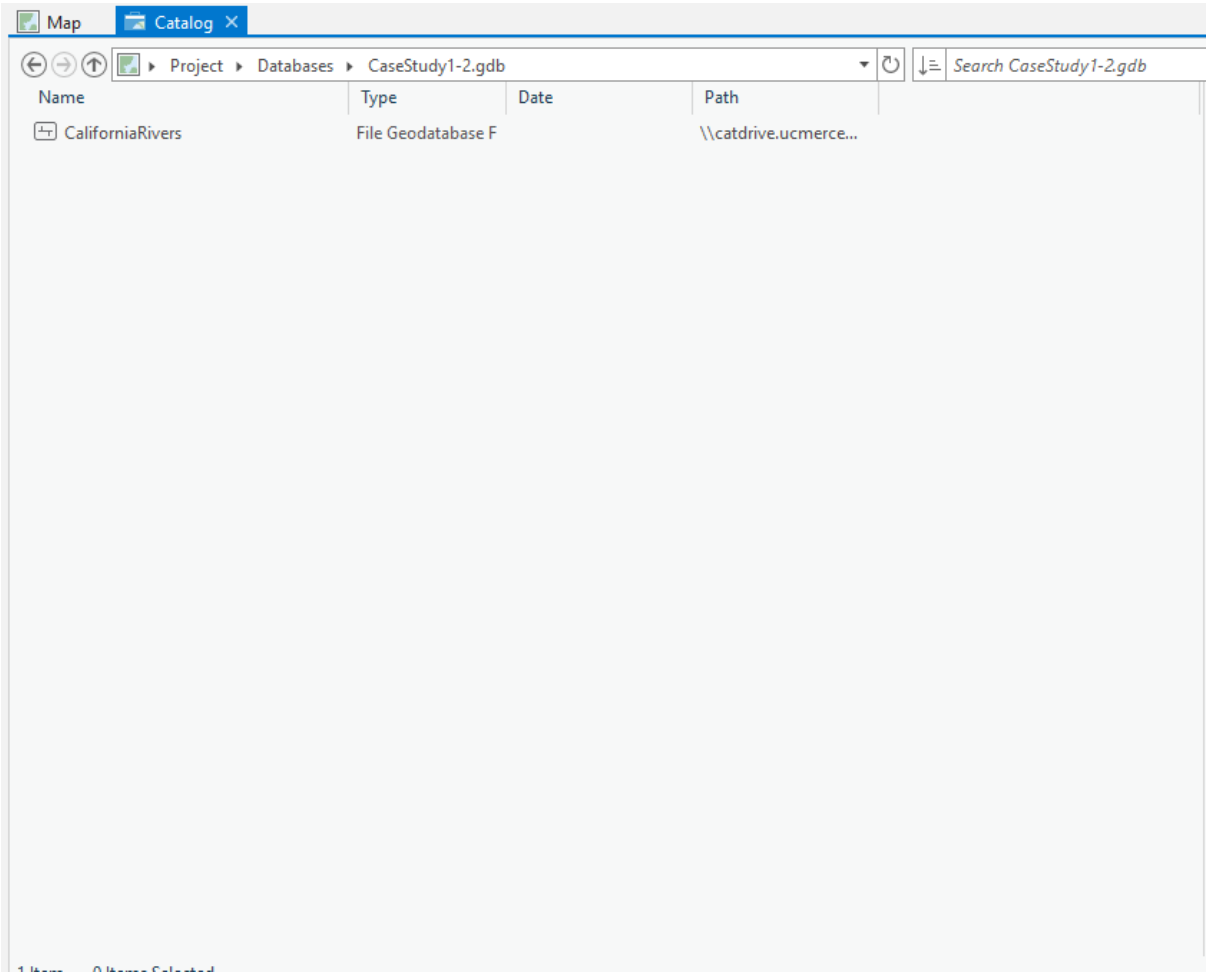




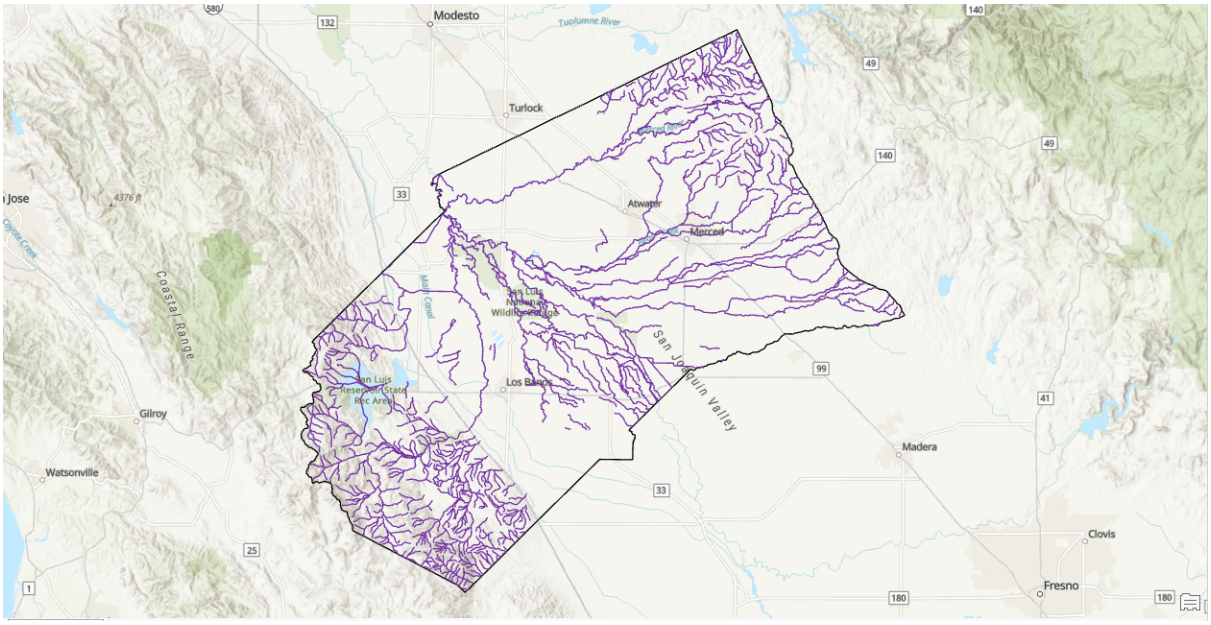
- A screenshot showing your Catalog Pane, including both geodatabases, all their content, and CaseStudy1-2 geodatabase set to your Default Geodatabase.




Map
Catalog
Project ▸ Databases ▸ CaseStudy1-1.gdb
Search CaseStudy1-1.gdb
Name
Type
Date
Path
CaliforniaRiversProj
File Geodatabase F
\\catdrive.ucmerce...
GAMAWells0403
File Geodatabase F
\\catdrive.ucmerce...
GAMAWellsData
File Geodatabase T
\\catdrive.ucmerce...
GAMAWellsData_Statistics
File Geodatabase T
\\catdrive.ucmerce...
GAMAWellsData_Statistics1
File Geodatabase T
\\catdrive.ucmerce...
GAMAWellsDDGCS
File Geodatabase F
\\catdrive.ucmerce...
GAMAWellsDDPRJ
File Geodatabase F
\\catdrive.ucmerce...
7 Items
0 Items Selected



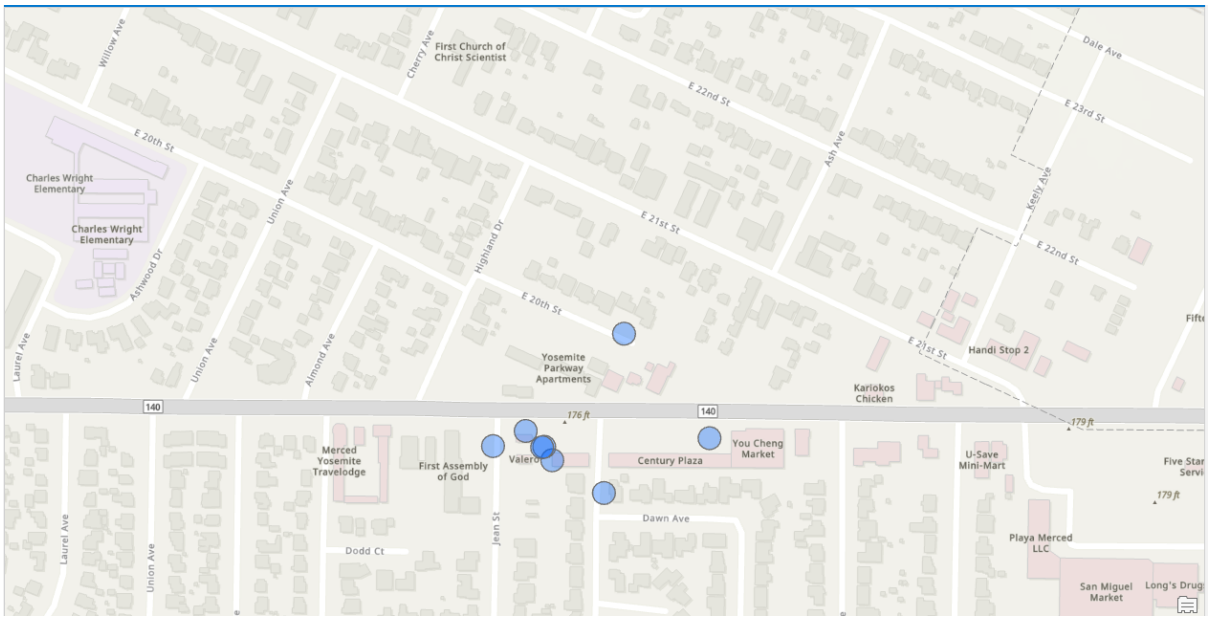
- Compare and contrast the clip and intersect geoprocessing tasks and include a screenshot of either layer for submission.



This is a map created when using clip.

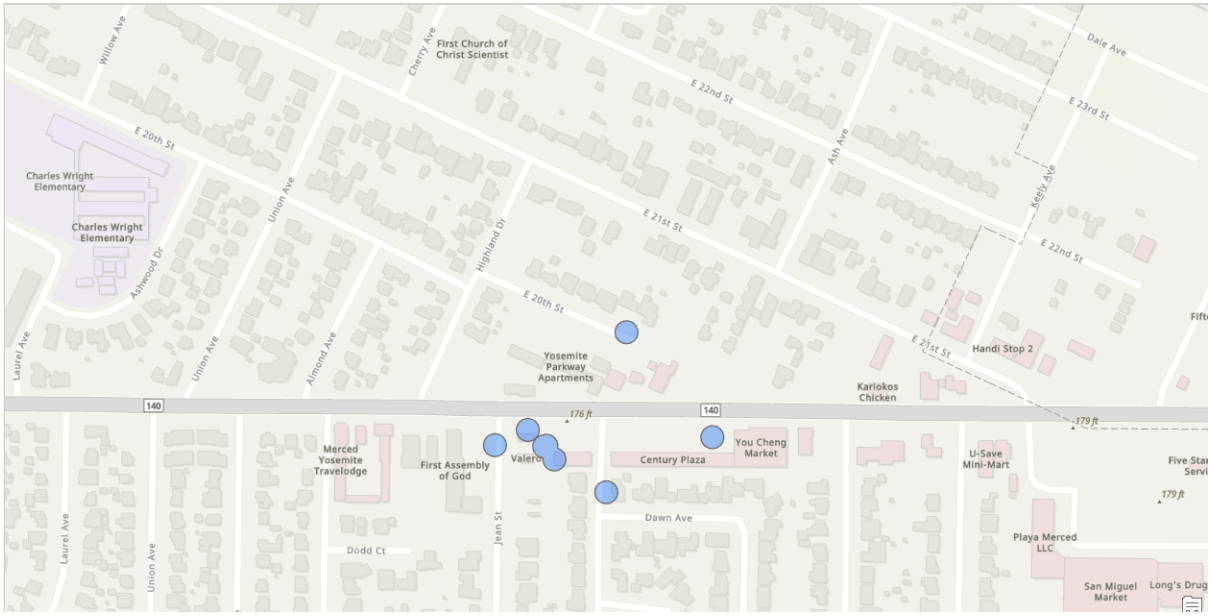
- A similarities I notice between both clip and intersect are that they both include objectid, shape, LLID, name, length_ft, upx, upy, downx,downy,down_llid, down_name, down_measure, mouth and shape_length. This is seen when comparing both attribute tables. The differences in the attribute tables are that intersect has FFID_CaliforniaRiversProj (rivers projection), FFID_MercedCountyCAT, and shape_len. For clip, only the input features attributes are outputted. For intersect, the attributes from all features are outputted. Both generated the same image with little to no differences and were able to do the same task in this instance.

- Screenshot of buffered 10m wells

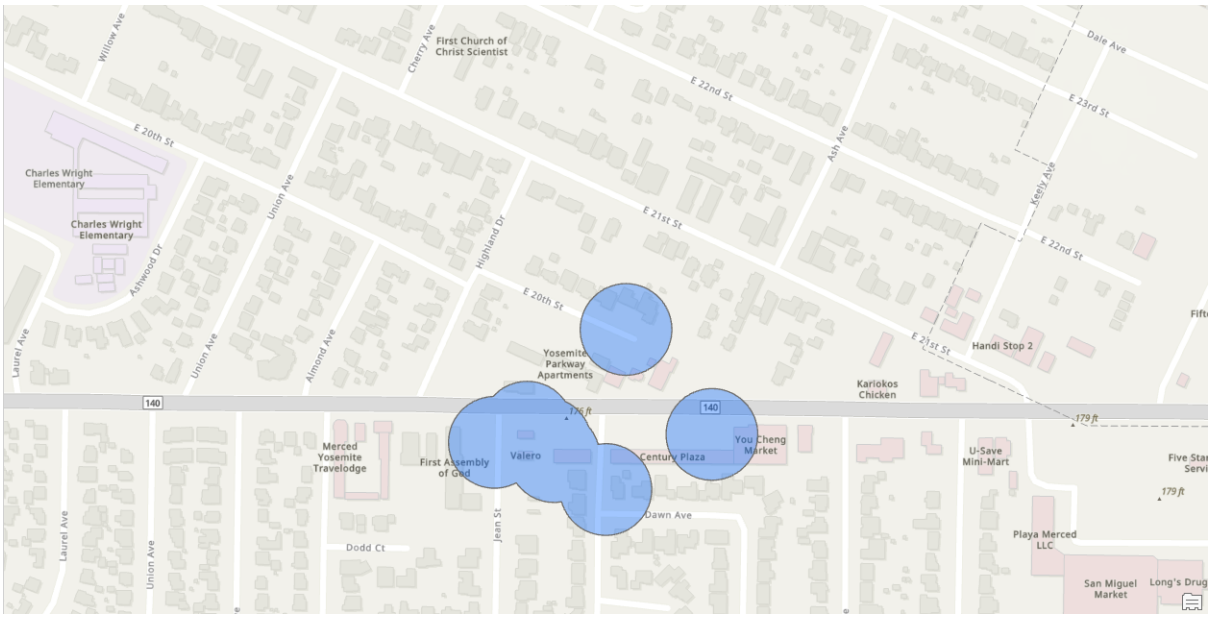


- Screenshot of buffered 40m wells

- Screenshot of dissolved 10m buffers



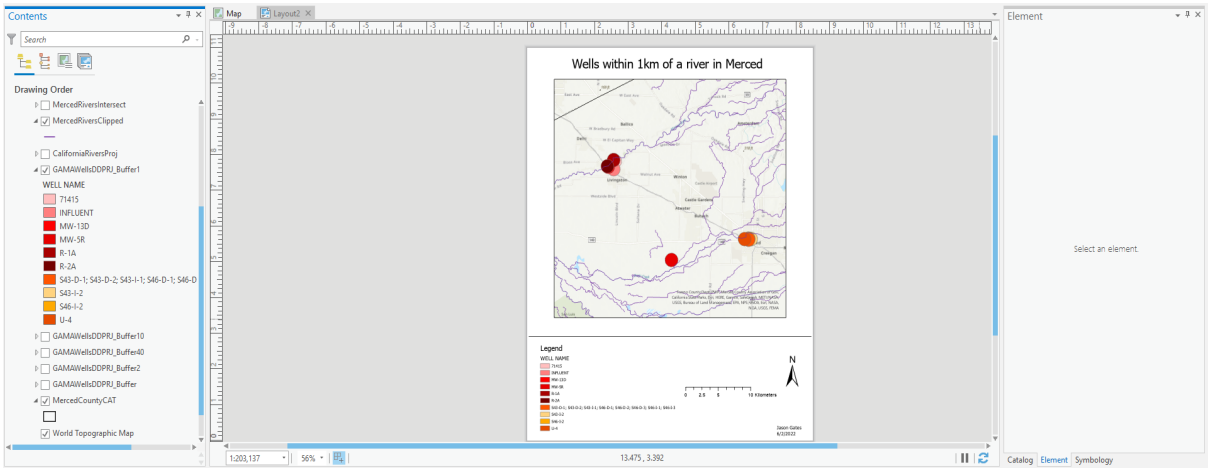
- Screenshot of dissolved 40m buffers



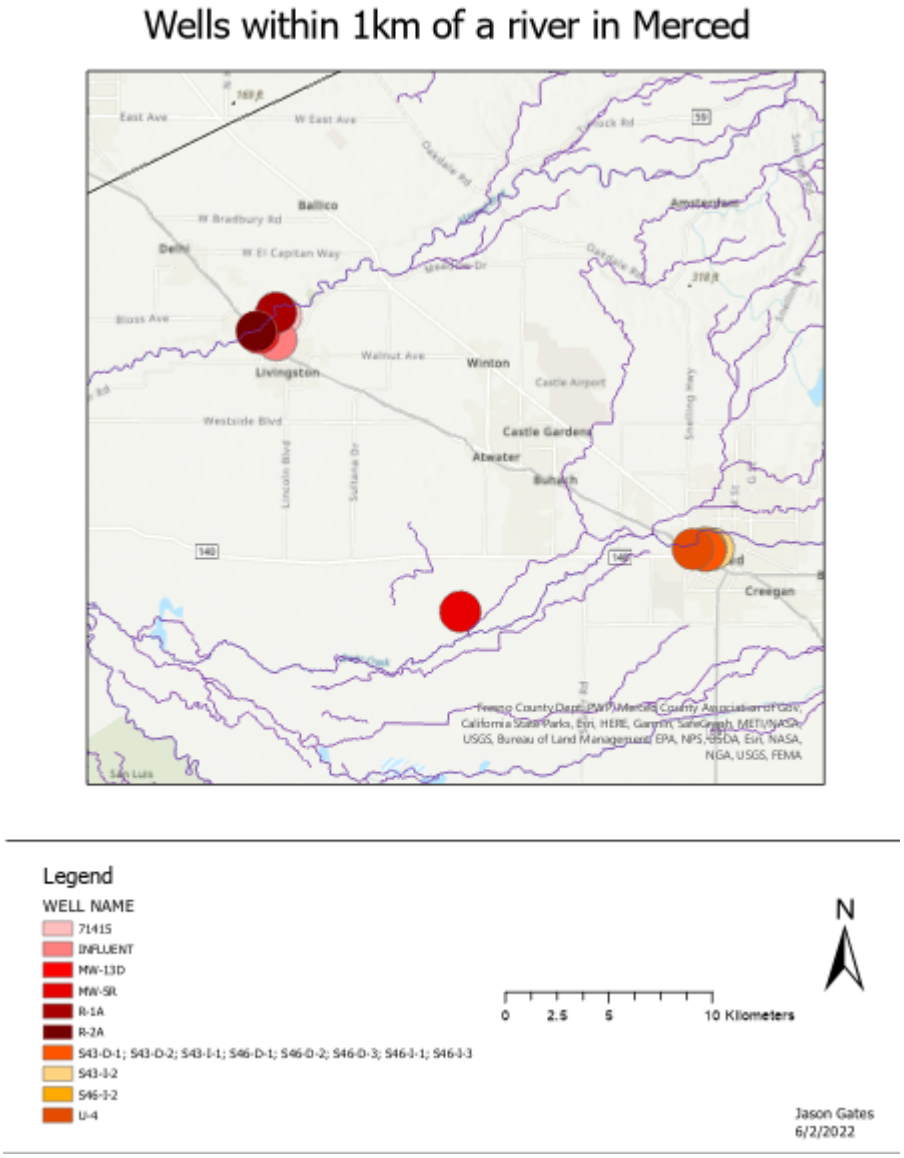
- Your understanding of what production quality means

-Production quality is something created that is very high quality, concise and meets the expectations of the company or person who asked you to create the product.It also mainly needs to fit industry standards and have no defects or errors. In the context of GIS and spatial analysis, I'm assuming that a production quality map is a high quality map that takes the data and creates a clear and concise message that the audience or people viewing the map can easily understand. This means that the visuals are appealing and easy to read and understand and that the map and its data are clearly organized and labeled by something like a legend or scale.If a person asks you to make a production quality map, it should meet the person's expectations and be high quality. Additionally, if the map is a bad representation of the data, I would consider it to be not production quality. It also needs a title, north arrow, creator information and date.

- Your production quality map with 3 geospatial layers and 5 key map elements



The steps I took to produce this is I used the buffer tool to make wells have a radius of 1 km. Then I filtered out the wells that didn't have a river that is within their 1 km radius. This was done through accessing the attribute table and deleting data. The data that needed to be deleted and the ones that need to be preserved were also verified by the Select By Location tool. I made a copy of the file before I delete the data to preserve the data and to use if I need to correct something. This was a very bruteforce way of doing it, but it achieved the objective. I understand that this method would be very inefficient if there were hundreds to thousands of data points. This could've also been done using clip, which is a better and more efficient method..



References

GISGeography. (2022, May 28). *7 Geoprocessing Tools Every GIS Analyst Should Know*. Retrieved June 6, 2022, from https://gisgeography.com/geoprocessing-tools/#:%7E:text=What's%20the%20difference%20between%20the,will%20be%20in%20the%20output.