Frank Olotu

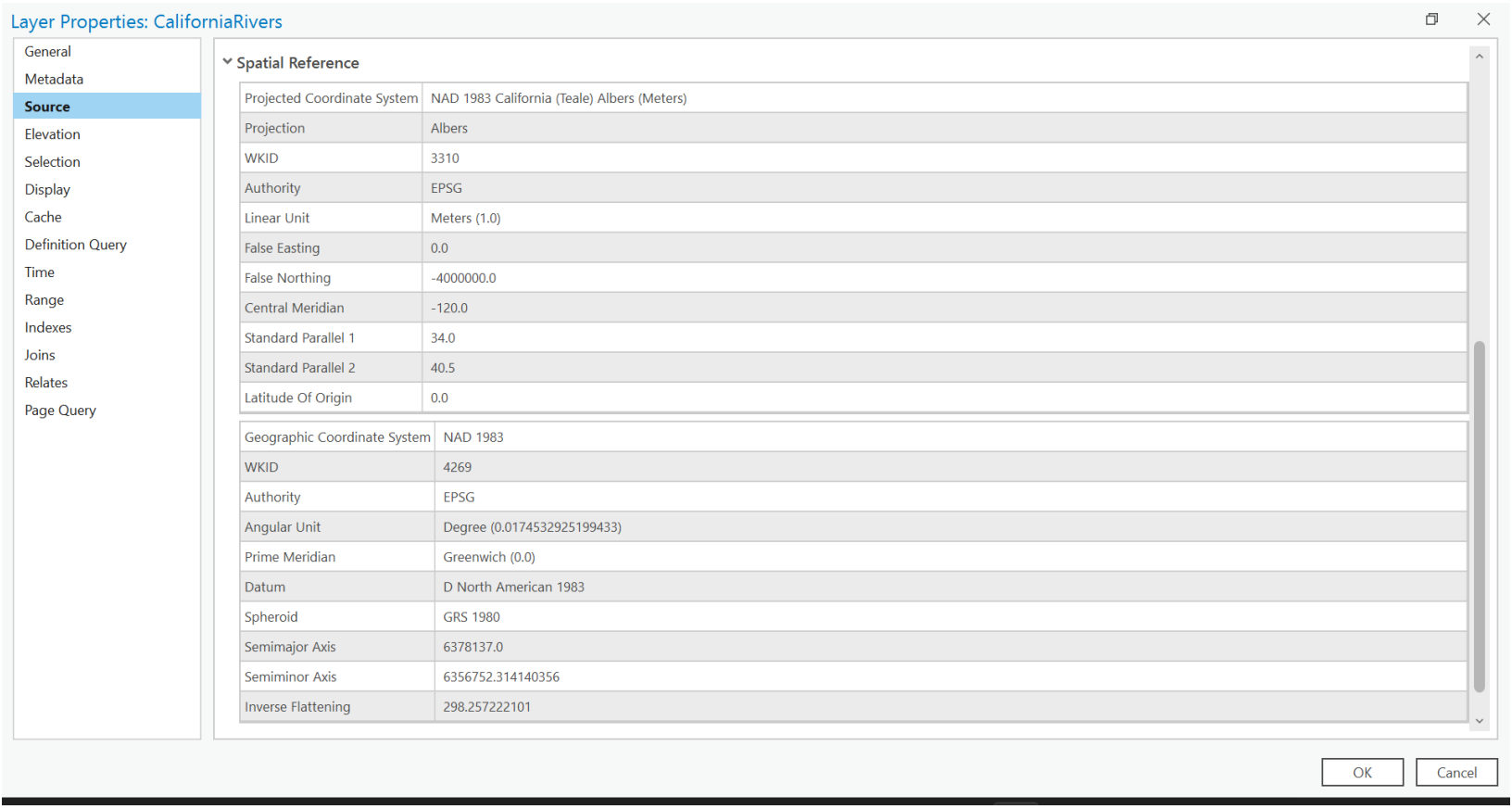
Prof. Joshua Viers

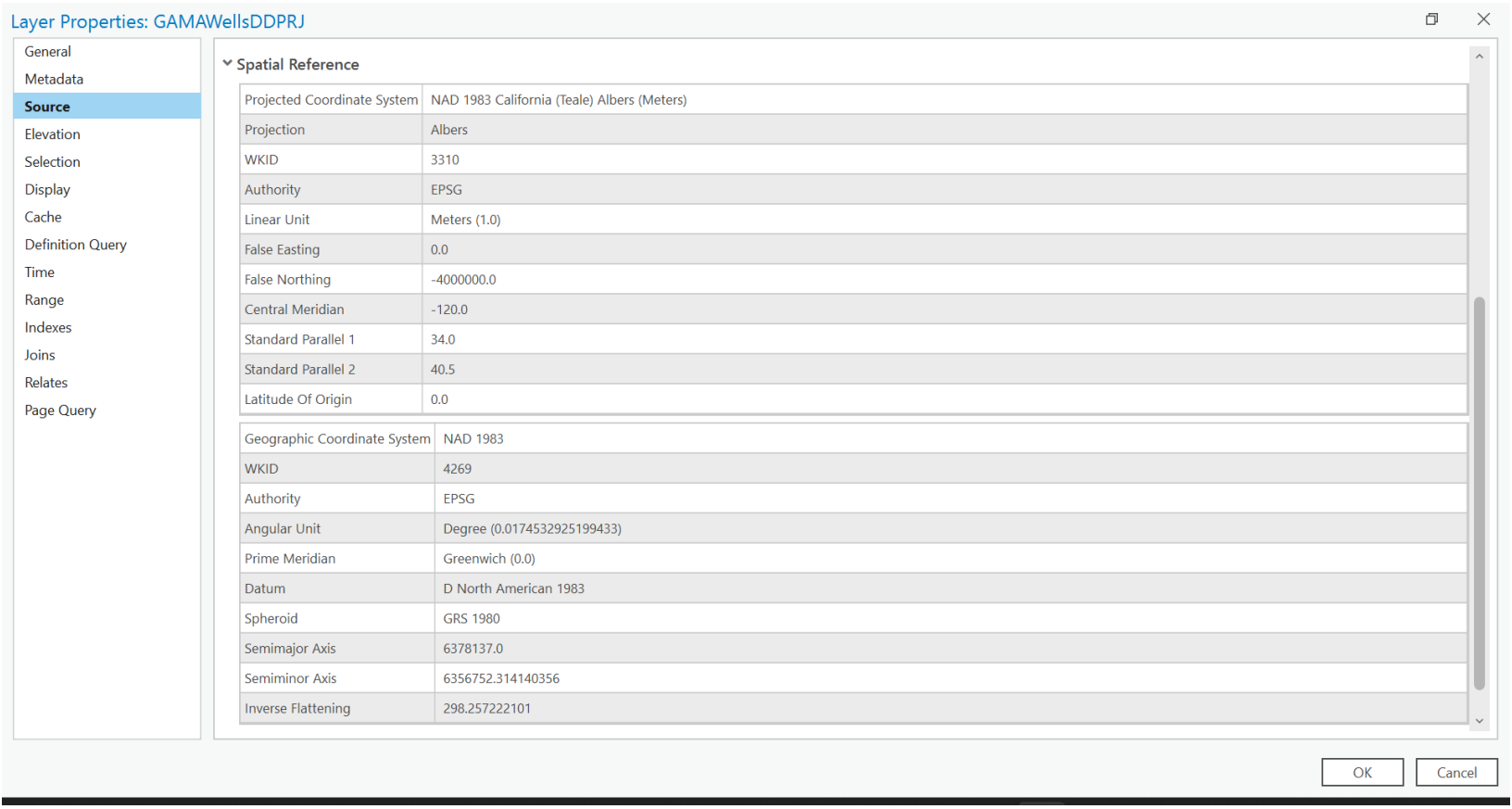
ENGR-180-01

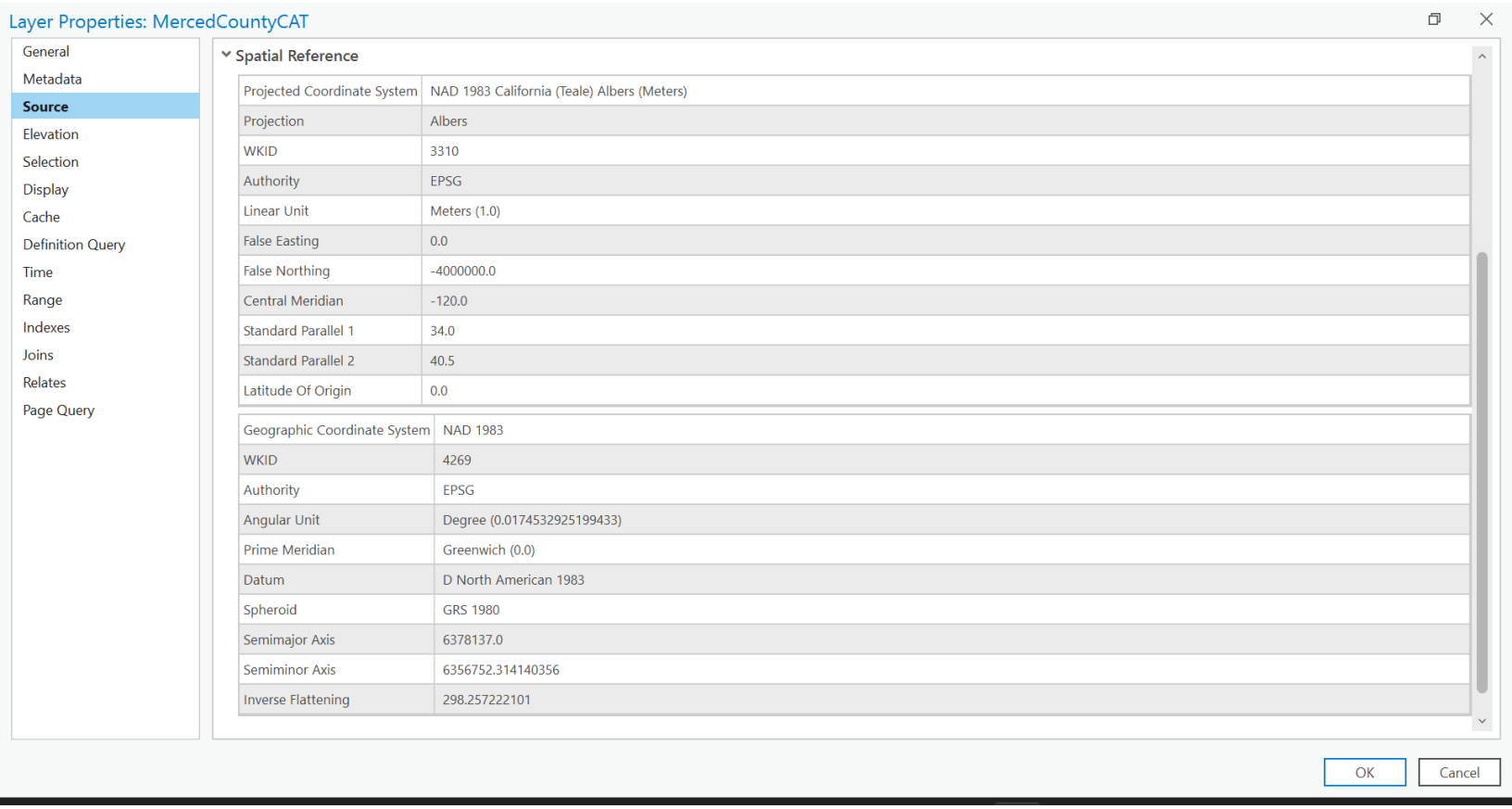
23 September 2022

Lab-2-2

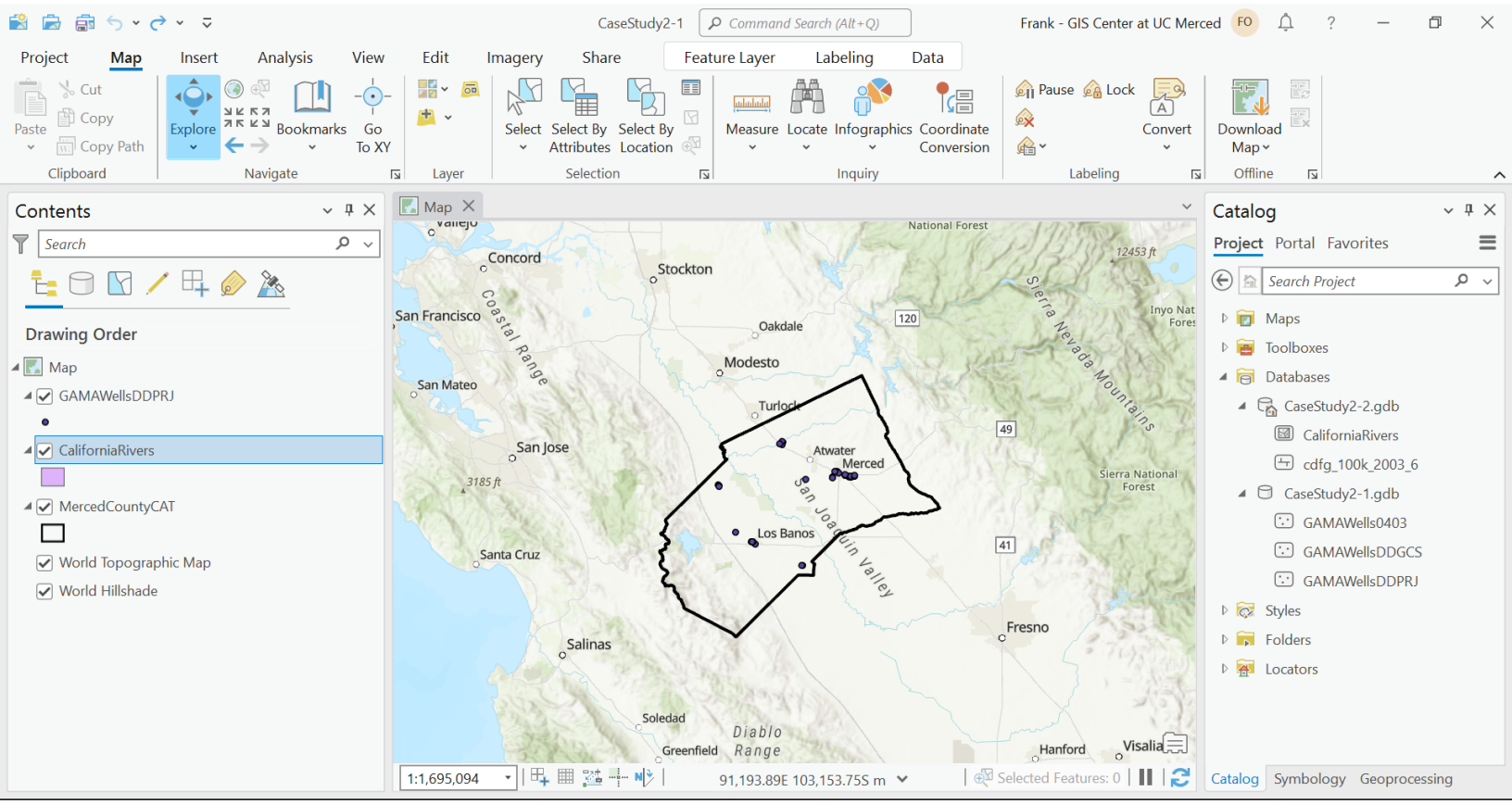
Submit screenshots verifying each layer is in the same projection. Hint: projections are part of spatial reference data.




Layer Properties: GAMAWellsDDPRJ
General
Metadata
Source
Elevation
Selection
Display
Cache
Definition Query
Time
Range
Indexes
Joins
Relates
Page Query
Spatial Reference
Projected Coordinate System | NAD 1983 California (Teale) Albers (Meters)
Projection | Albers
WKID | 3310
Authority | EPSG
Linear Unit | Meters (1.0)
False Easting | 0.0
False Northing | -4000000.0
Central Meridian | -120.0
Standard Parallel 1 | 34.0
Standard Parallel 2 | 40.5
Latitude Of Origin | 0.0
Geographic Coordinate System | NAD 1983
WKID | 4269
Authority | EPSG
Angular Unit | Degree (0.0174532925199433)
Prime Meridian | Greenwich (0.0)
Datum | D North American 1983
Spheroid | GRS 1980
Semimajor Axis | 6378137.0
Semiminor Axis | 6356752.314140356
Inverse Flattening | 298.257222101
OK
Cancel


Layer Properties: MercedCountyCAT
General
Metadata
Source
Elevation
Selection
Display
Cache
Definition Query
Time
Range
Indexes
Joins
Relates
Page Query
Spatial Reference
Projected Coordinate System | NAD 1983 California (Teale) Albers (Meters)
Projection | Albers
WKID | 3310
Authority | EPSG
Linear Unit | Meters (1.0)
False Easting | 0.0
False Northing | -4000000.0
Central Meridian | -120.0
Standard Parallel 1 | 34.0
Standard Parallel 2 | 40.5
Latitude Of Origin | 0.0
Geographic Coordinate System | NAD 1983
WKID | 4269
Authority | EPSG
Angular Unit | Degree (0.0174532925199433)
Prime Meridian | Greenwich (0.0)
Datum | D North American 1983
Spheroid | GRS 1980
Semimajor Axis | 6378137.0
Semiminor Axis | 6356752.314140356
Inverse Flattening | 298.257222101
OK
Cancel

Submit a screenshot showing your Catalog Pane, including both geodatabases, all their content, and CaseStudy2-2 geodatabase set to your Default Geodatabase



Unique Identifier scenario

A scenario in which I would join SPATIAL and ASPATIAL data would be for Uber ride history table being joined to the table that holds the ride amount that was paid, the Uber ride history would house the spatial data, and the unique identifier in this scenario would be the user's (rider) email. (I included a screenshot of what the database schema could look like below).

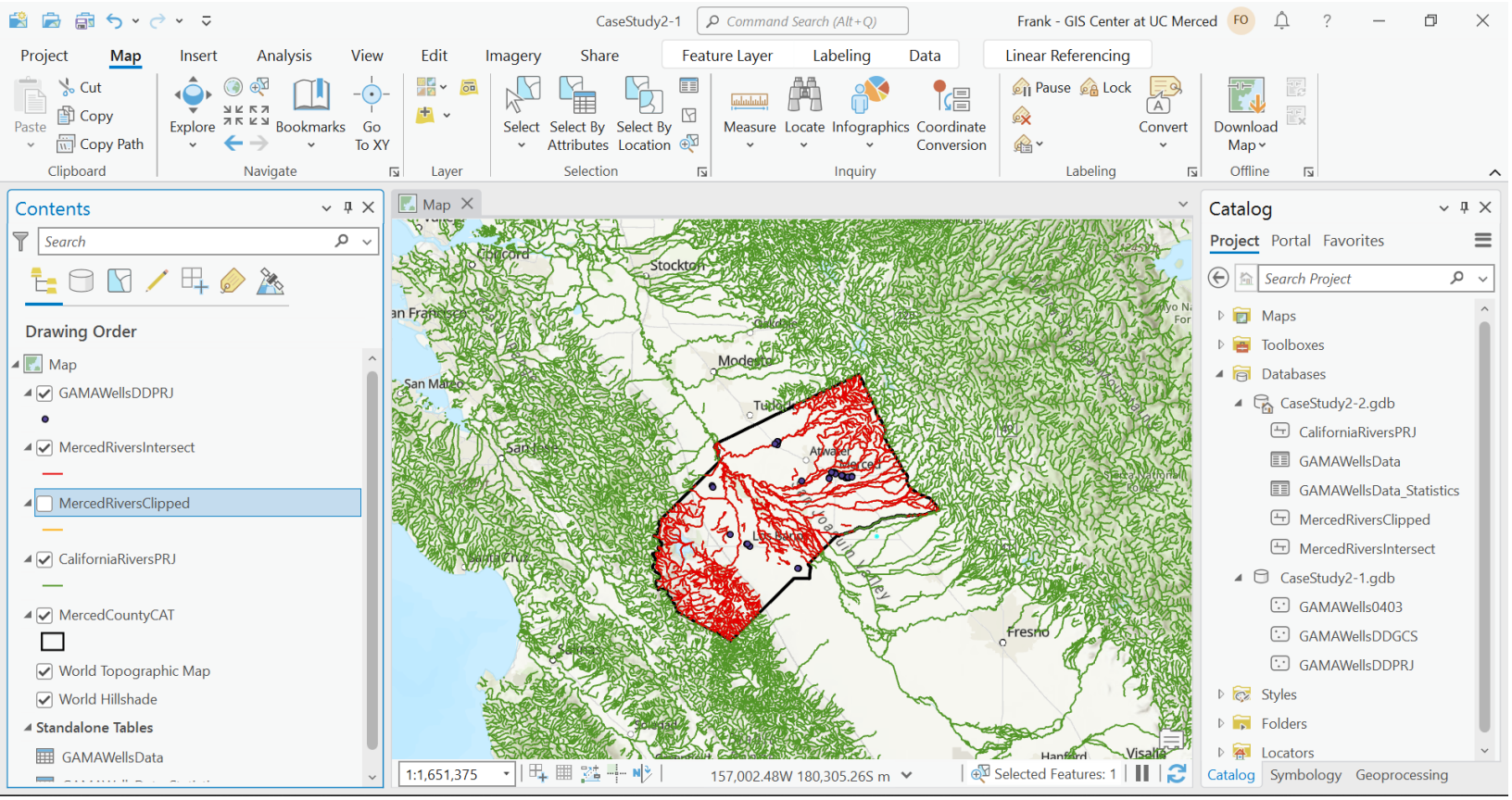
Uber Ride Location History (Spatial Data)		
Customer_Name	Drop_Off_Cordinates	Email
Juarev Ghen	801 N MAYFIELD SAN BERNARDINO CA 92376	JGhen127@gmail.com
Jessica Johnson	9500 KALMIA LOS ANGELES CA 90002	JessieJ879@gmail.com
Andrew Newton	9500 HAWKINS MANASSAS VA 20109	AndNewt2005@gmail.com

Uber Rider Amount Paid (Aspatial Data)		
Customer_Name	Email	Amount_Paid
Juarev Ghen	JGhen127@gmail.com	$14.68
Jessica Johnson	JessieJ879@gmail.com	$54.66
Andrew Newton	AndNewt2005@gmail.com	$26.78

In a written response, compare and contrast the clip and intersect geoprocessing tasks and include a screenshot of either layer for submission. You can use supplemental resources in your comparison, just be sure to cite them!

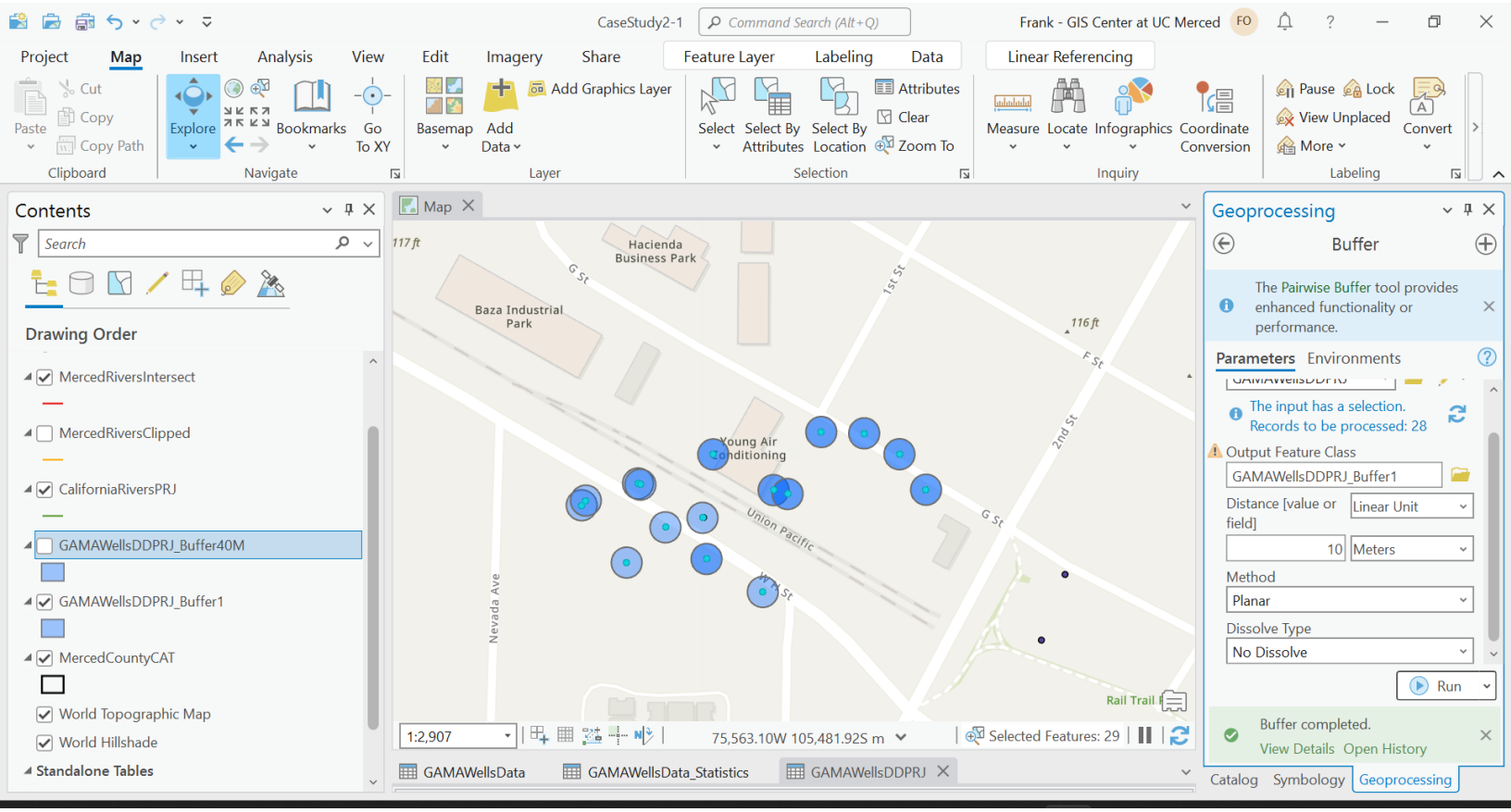
The clip and intersect geoprocessing tools did not show much of a difference in this scenario because the section that was clipped off is exactly where the two values (the boundary of merced county and the river data) meet or intersect, so in this case the two tools showed the same result, but if the scenario were to be different the clip tool is essentially supposed to cut out a piece from a feature class using one or more of the features in another class as a cookie cutter ("Clip—Help | ArcGIS for desktop," 2016) while the intersect tool is meant to give us the portions of where two or more feature classes overlap ("Intersect (Analysis)," 2021). They are similar in regards to this scenario because we had used the same parameters for both tools, clipping the

CaliforniaRiver feature class to the Merced County boundary and intersecting Merced county with the CaliforniaRivers layer. I have also included a screenshot for the MercedRiversIntersect below.

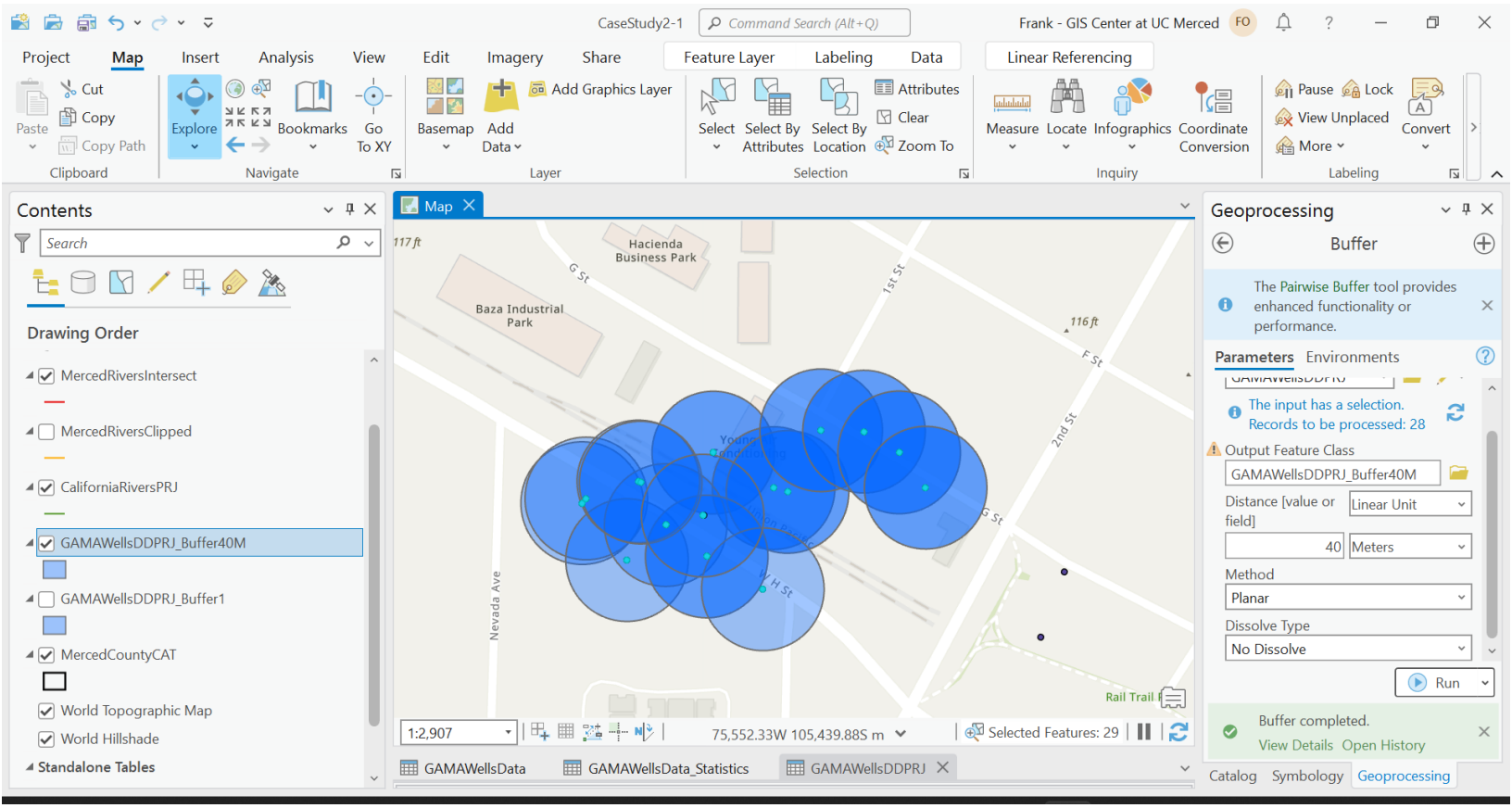


Take a screenshot for submission and be sure to zoom in on a group of wells, so that the buffers are visually apparent. (You must take two screenshots here - one for 10m, one for 40m) .

Below is the screenshot for both buffer lengths.

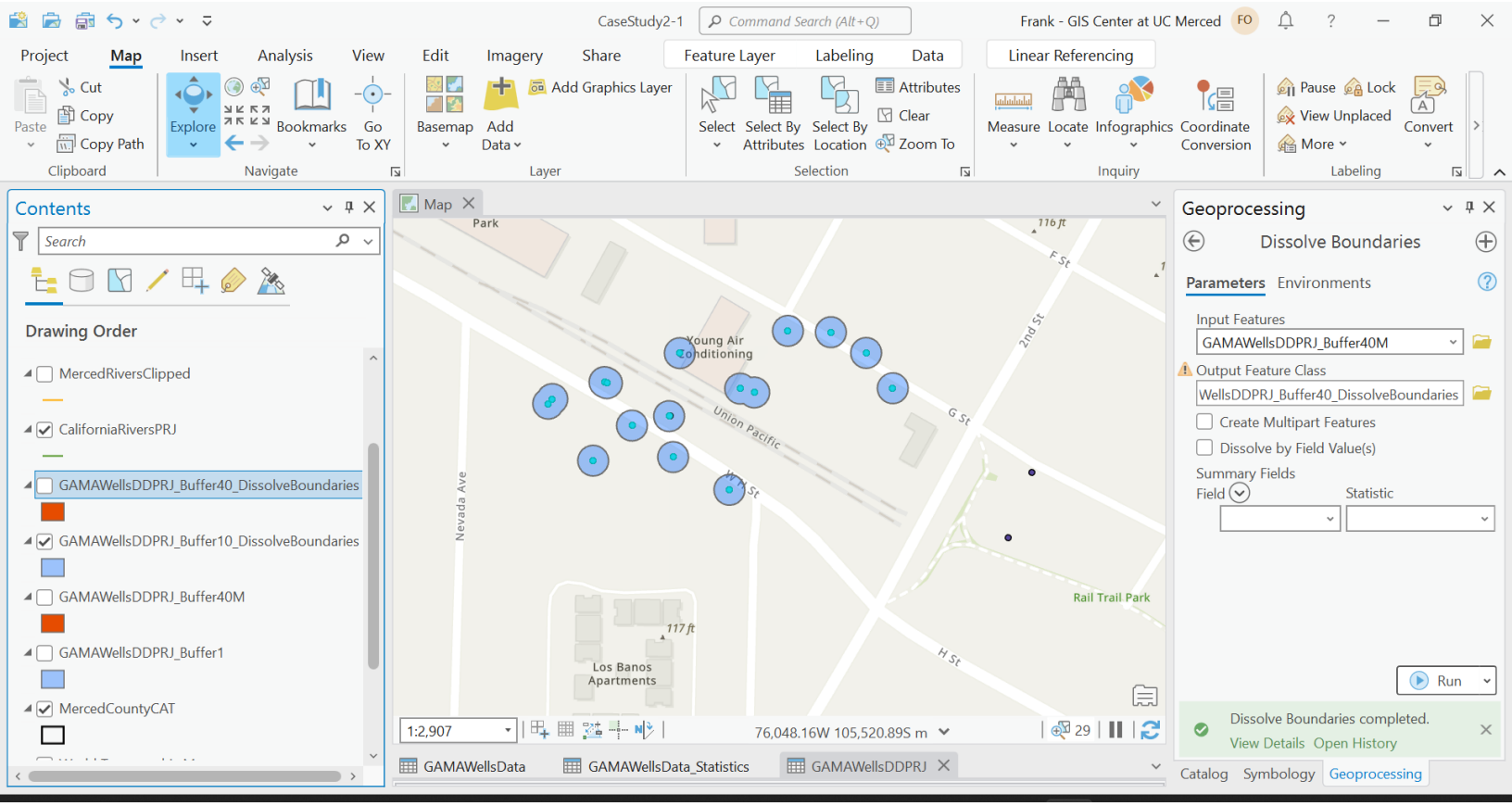


Above is a screenshot of the 10 meter buffer and below is a screenshot of the 40 meter buffer.

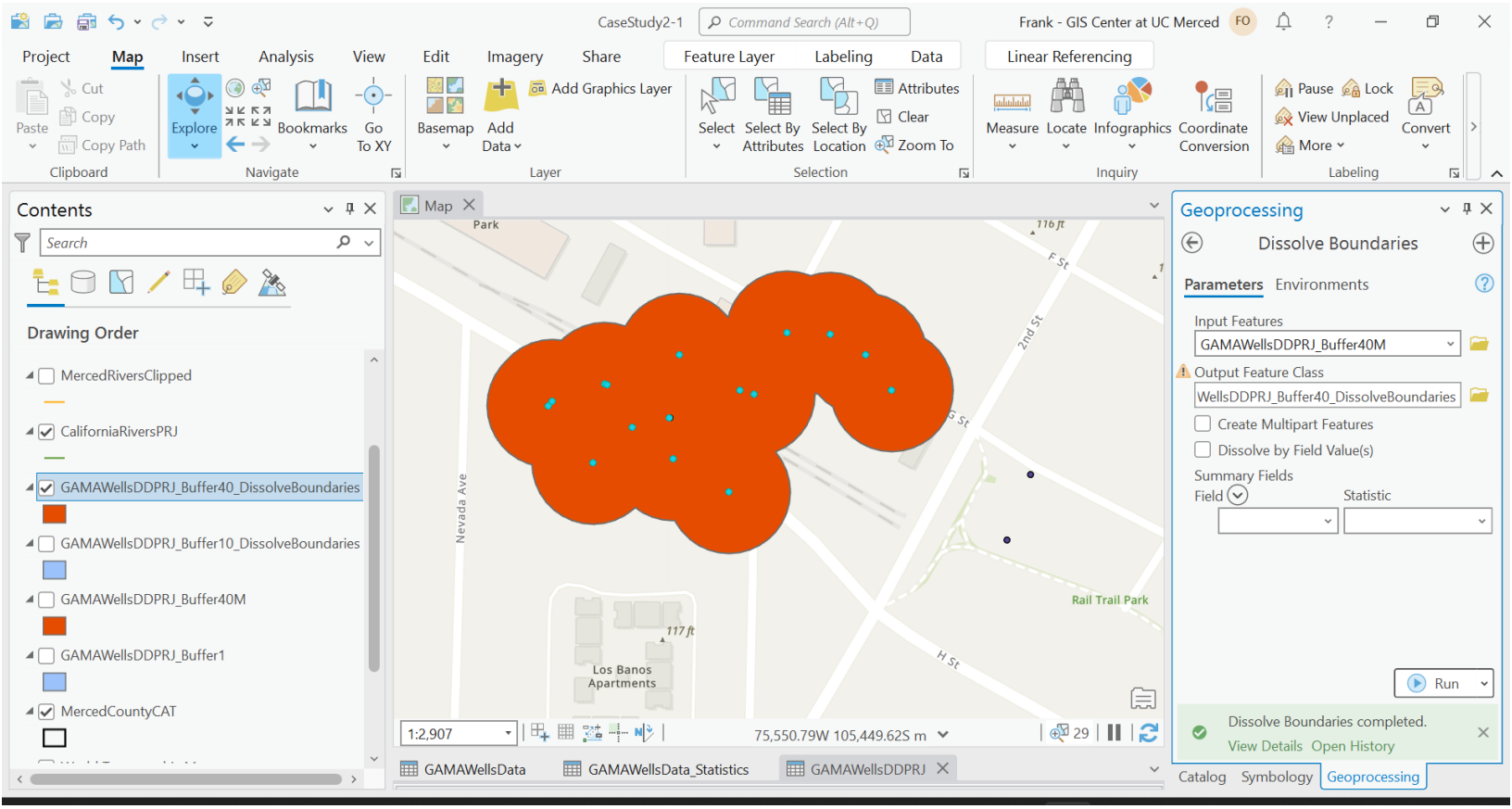


Merge all of the 10 and 40-meter buffers from the previous step and create TWO separate screenshots for submission (dissolved 10-m buffers and dissolved 40-m buffers).

Below is a screenshot of the 10 meter buffer dissolved.

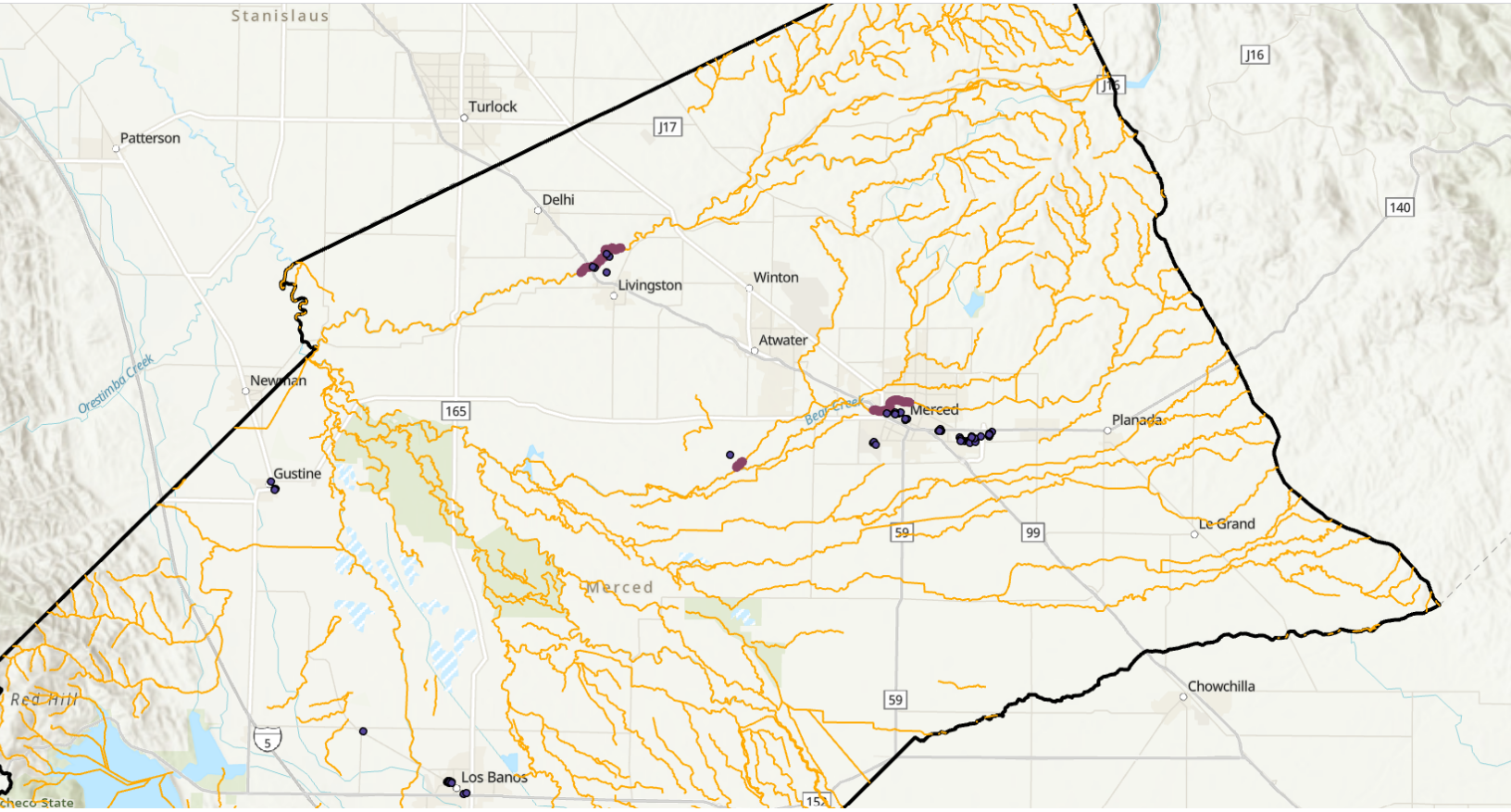


Below is a screenshot of the 40 meter buffer dissolved.


CaseStudy2-1
Command Search (Alt+Q)
Frank - GIS Center at UC Merced
Project
Map
Insert
Analysis
View
Edit
Imagery
Share
Feature Layer
Labeling
Data
Linear Referencing
Paste
Cut
Copy
Copy Path
Explore
Bookmarks
Go To XY
Basemap
Add Data
Add Graphics Layer
Select
Select By Attributes
Select By Location
Attributes
Clear
Zoom To
Measure
Locate
Infographics
Coordinate Conversion
Pause
Lock
View Unplaced
More
Convert
Clipboard
Navigate
Layer
Selection
Inquiry
Labeling
Contents
Search
Drawing Order
MercedRiversClipped
CaliforniaRiversPRJ
GAMAWellsDDPRJ_Buffer40_DissolveBoundaries
GAMAWellsDDPRJ_Buffer10_DissolveBoundaries
GAMAWellsDDPRJ_Buffer40M
GAMAWellsDDPRJ_Buffer1
MercedCountyCAT
Map
Park
116 ft
F St
2nd St
G St
Nevada Ave
Rail Trail Park
117 ft
Los Banos Apartments
H St
1:2,907
75,550.79W 105,449.62S m
29
GAMAWellsData
GAMAWellsData_Statistics
GAMAWellsDDPRJ
Geoprocessing
Dissolve Boundaries
Parameters
Environments
Input Features
GAMAWellsDDPRJ_Buffer40M
Output Feature Class
WellsDDPRJ_Buffer40_DissolveBoundaries
Create Multipart Features
Dissolve by Field Value(s)
Summary Fields
Field
Statistic
Run
Dissolve Boundaries completed.
View Details
Open History
Catalog
Symbology
Geoprocessing

Screenshot of wells within 1km of Merced County Rivers

Below is a screenshot of the wells within 1km of the Merced county rivers. The wine color highlight indicates where the wells and rivers that are within 1km meet.



Works Cited

Clip—Help | ArcGIS for desktop. (2016, February 5).

https://desktop.arcgis.com/en/arcmap/10.3/tools/analysis-toolbox/clip.htm

Intersect (Analysis). (2021, April 18).

https://pro.arcgis.com/en/pro-app/2.8/tool-reference/analysis/intersect.htm