

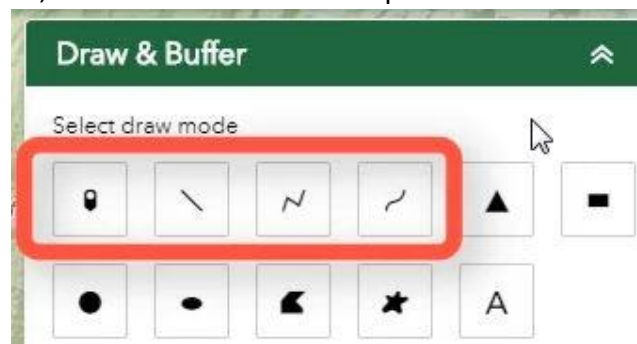
## Buffer Tool

The purpose of this tutorial is to demonstrate the functionality of the **Buffer tool**. This tool allows you to create a buffer zone around your drawing if it is a point, line, or polyline. It will determine which features from your selected layers are within the buffer zone.

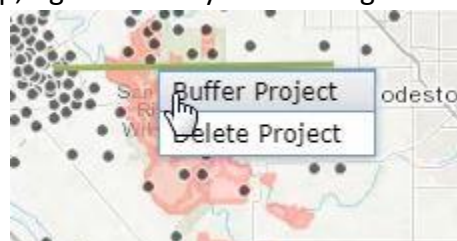
1. First, activate all layers that you wish to use the tool for.
2. Open the *Draw & Buffer tool* from the GIS Tools drop-down list in the upper right corner.



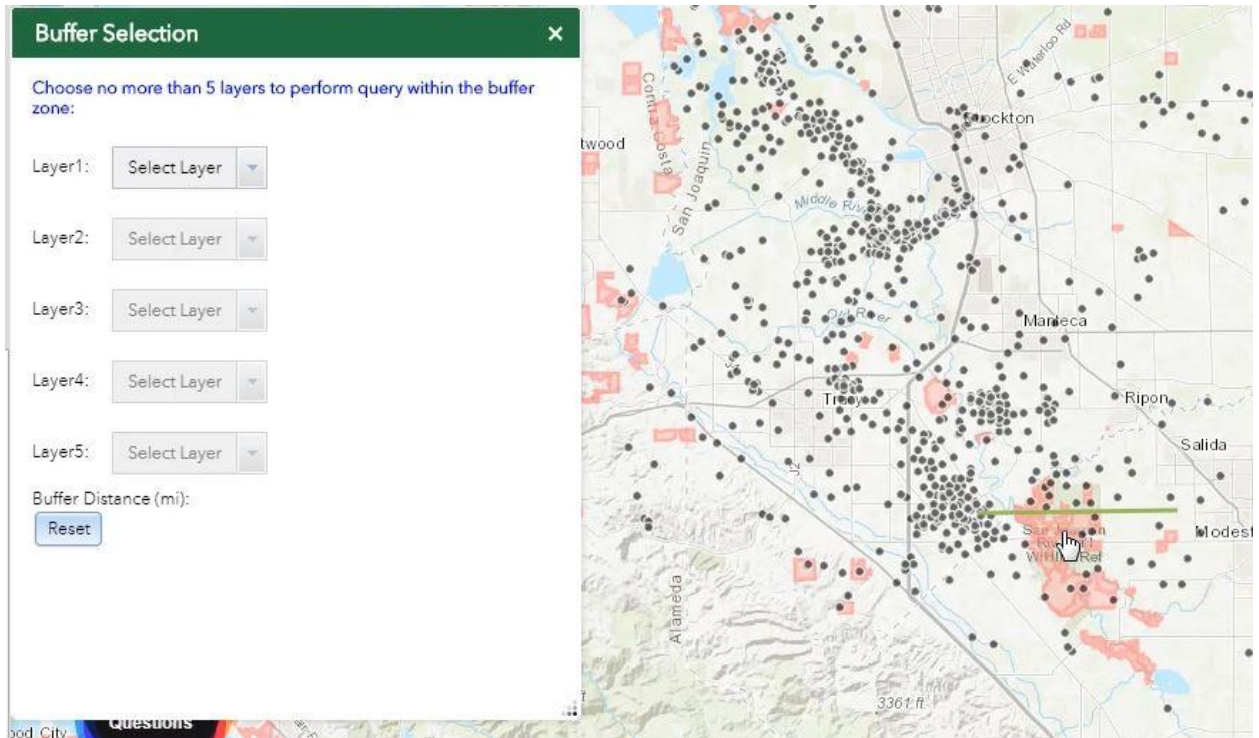
3. Before you can create a buffer zone, you first need to draw on the map. Select either point, line, or polyline, and then draw on the map.



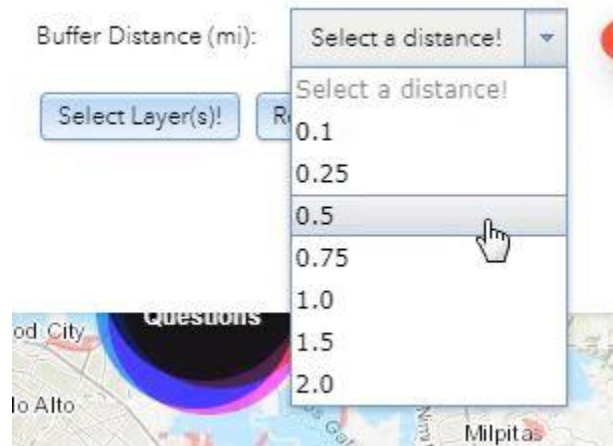
4. After you draw on the map, right click on your drawing and select *Buffer Project*.



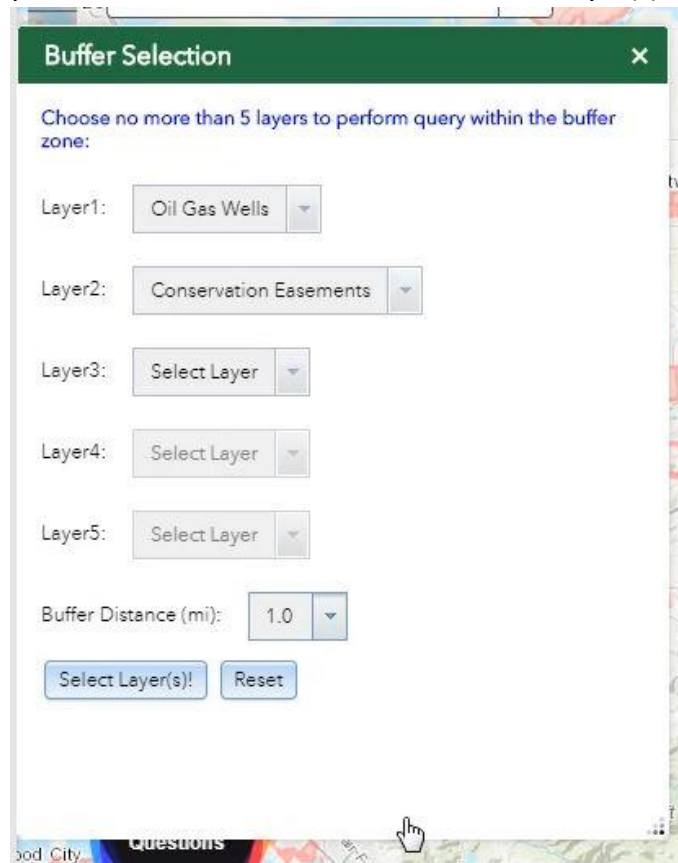
- The Buffer Selection window will open. Choose which layers (up to 5) to perform query within the buffer zone.



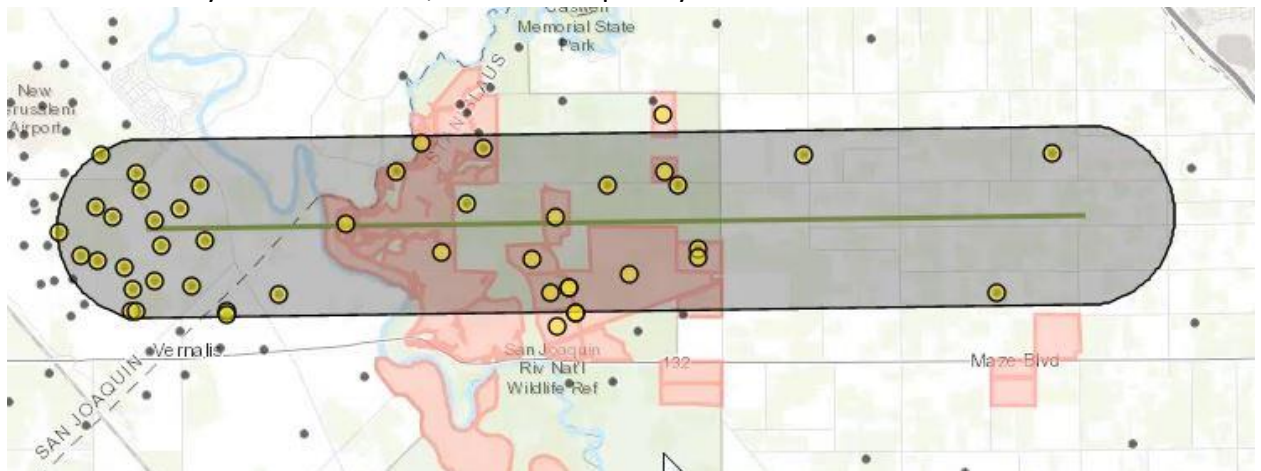
- Select the distance for your buffer zone.



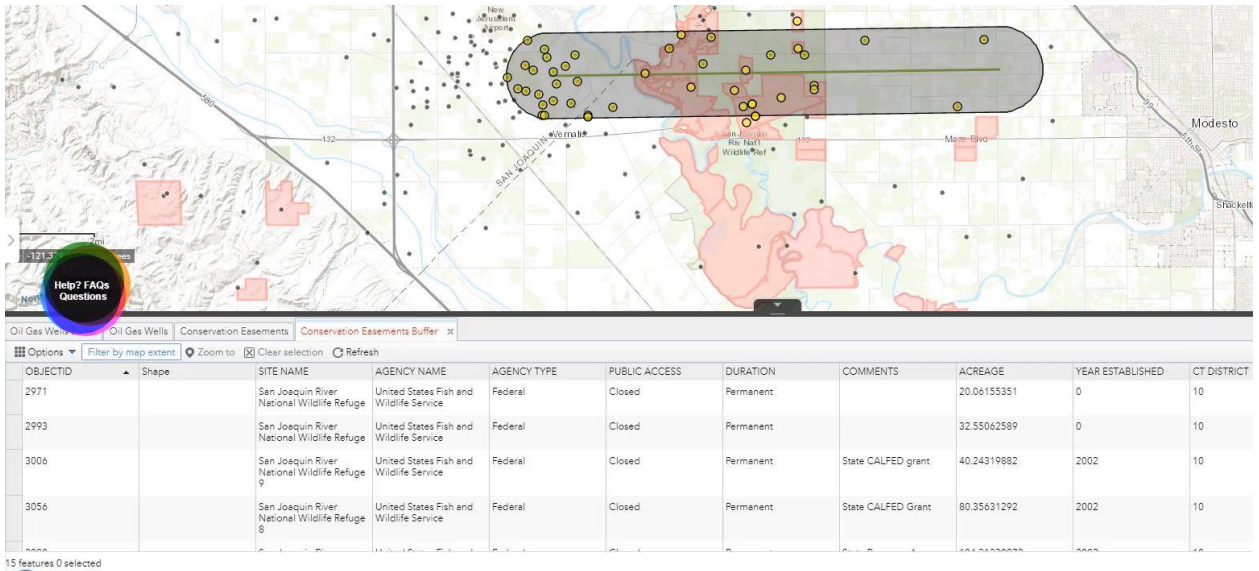
- When you're ready to create the buffer zone, click on *Select Layer(s)!*



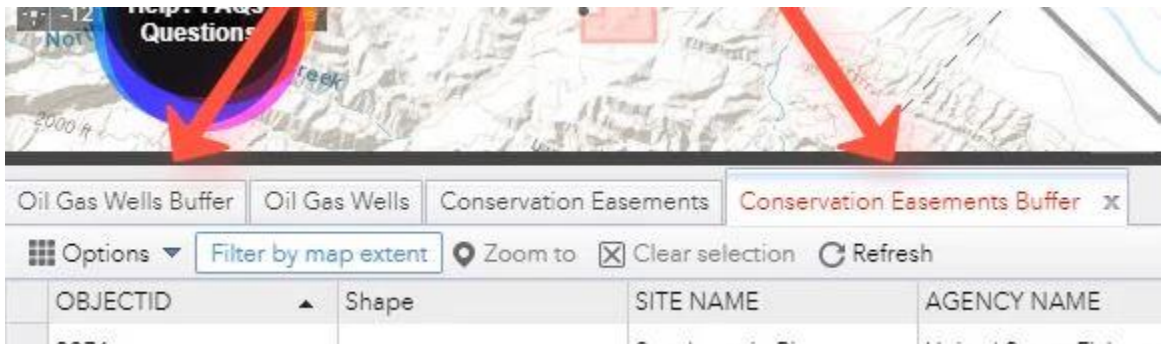
- The buffer zone will appear as a gray shaded polygon around the line you drew. The yellow dots represent all the features within the buffer zone. Notice that some of the dots are outside of the buffer zone. This is because the dot is centered on a polygon that is intersected by the buffer zone, but not completely within it.



9. The attribute table will open after you create the buffer zone.



Tabs for the features in the buffer zone for each layer are created with the original layer name appended by “\_Buffer”.

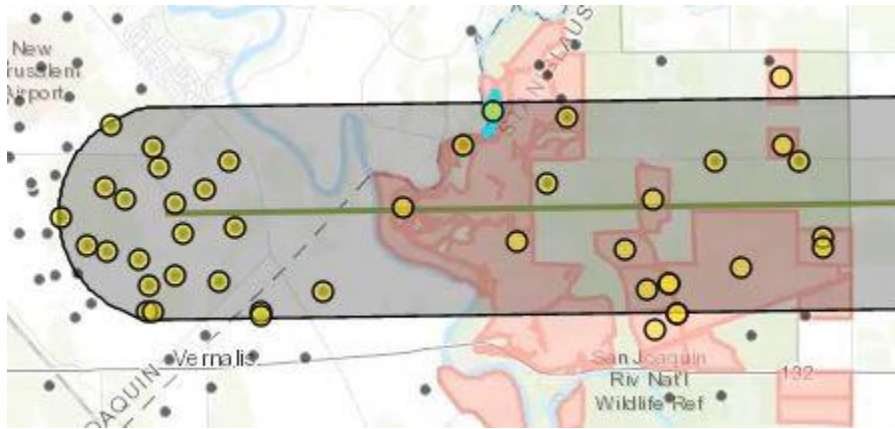


In the lower left corner, you can see the number of features in each layer that were captured by the buffer zone.

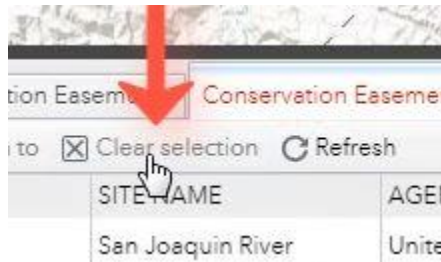




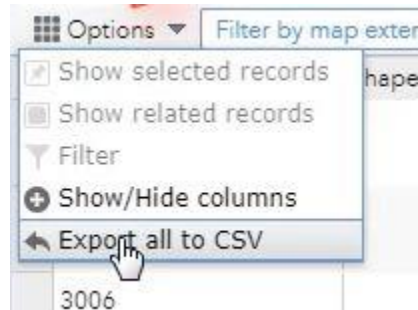
10. You can select features in the attribute table by clicking the space next to the row. When you select a feature in the attribute table, it is highlighted on the map.



11. Clear selections by clicking the *Clear Selection* button.



12. You can export the tabular data to a CSV file by clicking the *Options* drop-down list and then selecting *Export all to CSV*.



13. You can also select features on the map by clicking on them, which will open the popup side panel.

The screenshot displays a GIS application interface. On the left, a popup side panel titled 'Oil Gas Wells Buffer' provides detailed metadata for a selected feature. The main map area shows a geographical view of San Joaquin County, California, with various features highlighted in red and yellow. A search bar at the top center allows for finding addresses or places. Below the map, a toolbar includes options for 'Filter by map extent', 'Zoom to', 'Clear selection', and 'Refresh'. At the bottom, a data table lists selected features with columns for OBJECTID, Shape, SITE NAME, AGENCY NAME, AGENCY TYPE, PUBLIC ACCESS, DURATION, COMMENTS, and ACREAGE.

**Oil Gas Wells Buffer Metadata:**

- Auto: 226,146
- District: 6
- Confident: N
- APINumber: 07700291
- OperatorCo: C5640
- OperatorNa: Chevron U.S.A. Inc.
- LesseeName: Blewett Community
- WellNumber: 15
- GISSymbol: PDH
- WellStatus: P
- FieldName: Vernalis Gas
- AreaName: Any Area
- CountyName: San Joaquin
- Section: 24
- Township: 03S
- Range: 06E
- BaseMeridi: MD
- Elevation:
- DryHole:
- Directiona: Unknown
- AbandonedS: Not Verified
- Spud\_Date: October 6, 1960
- WellDepthA: 6,400.00
- Abandoned: October 19, 1960
- Completion:
- GISSourceC: hud
- LocationDe:
- Latitude: 37.67
- Longitude: -121.27
- IsEPAWell: 0
- IsBLMInter: 0

**Data Table:**

| OBJECTID | Shape | SITE NAME                                    | AGENCY NAME                             | AGENCY TYPE | PUBLIC ACCESS | DURATION  | COMMENTS           | ACREAGE  |
|----------|-------|--|---|-------------|---------------|-----------|--------------------|----------|
| 2971     |       | San Joaquin River National Wildlife Refuge   | United States Fish and Wildlife Service | Federal     | Closed        | Permanent |                    | 20,06155 |
| 2993     |       | San Joaquin River National Wildlife Refuge   | United States Fish and Wildlife Service | Federal     | Closed        | Permanent |                    | 32,55062 |
| 3006     |       | San Joaquin River National Wildlife Refuge 9 | United States Fish and Wildlife Service | Federal     | Closed        | Permanent | State CALFED grant | 40,24319 |