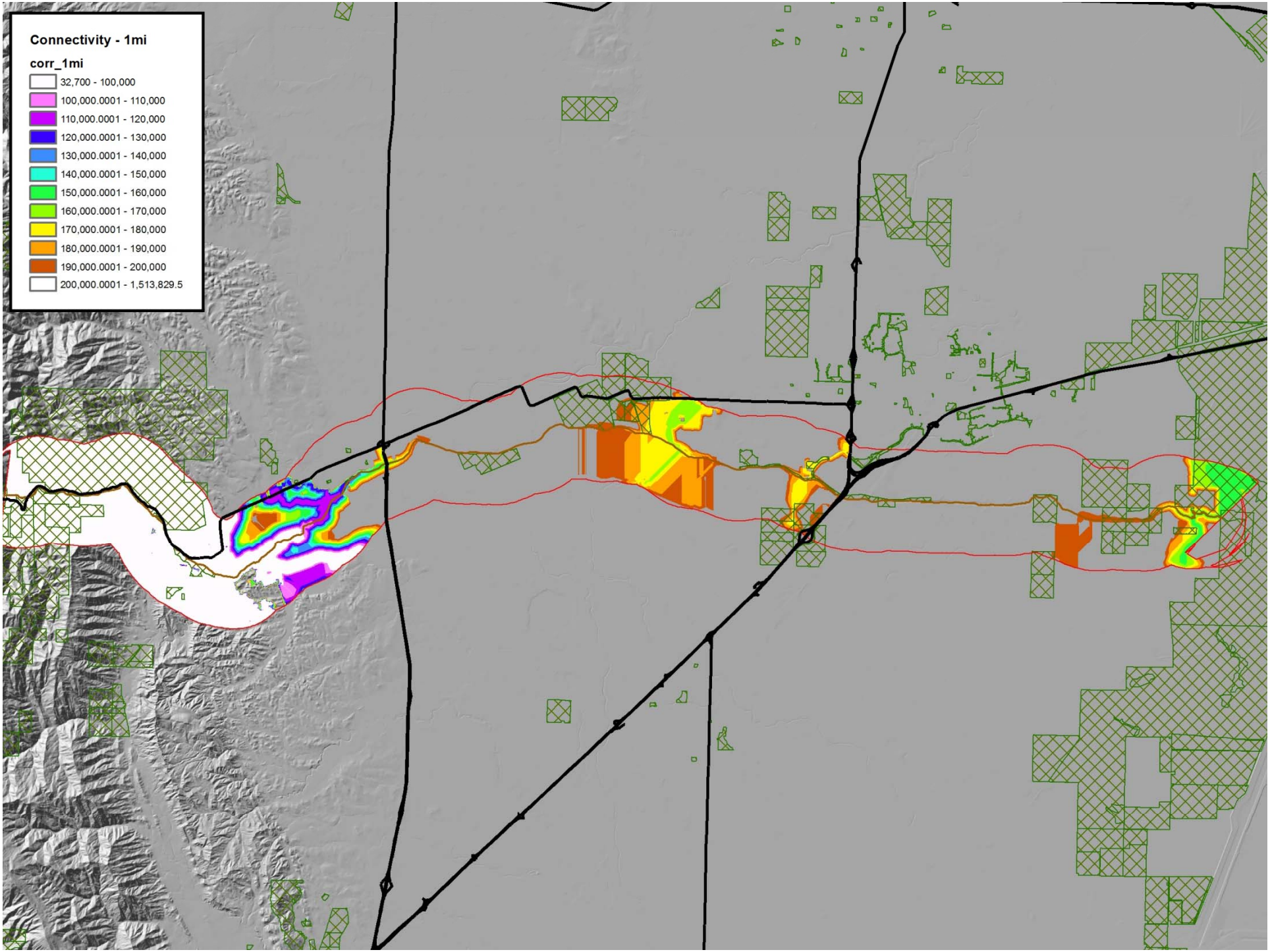
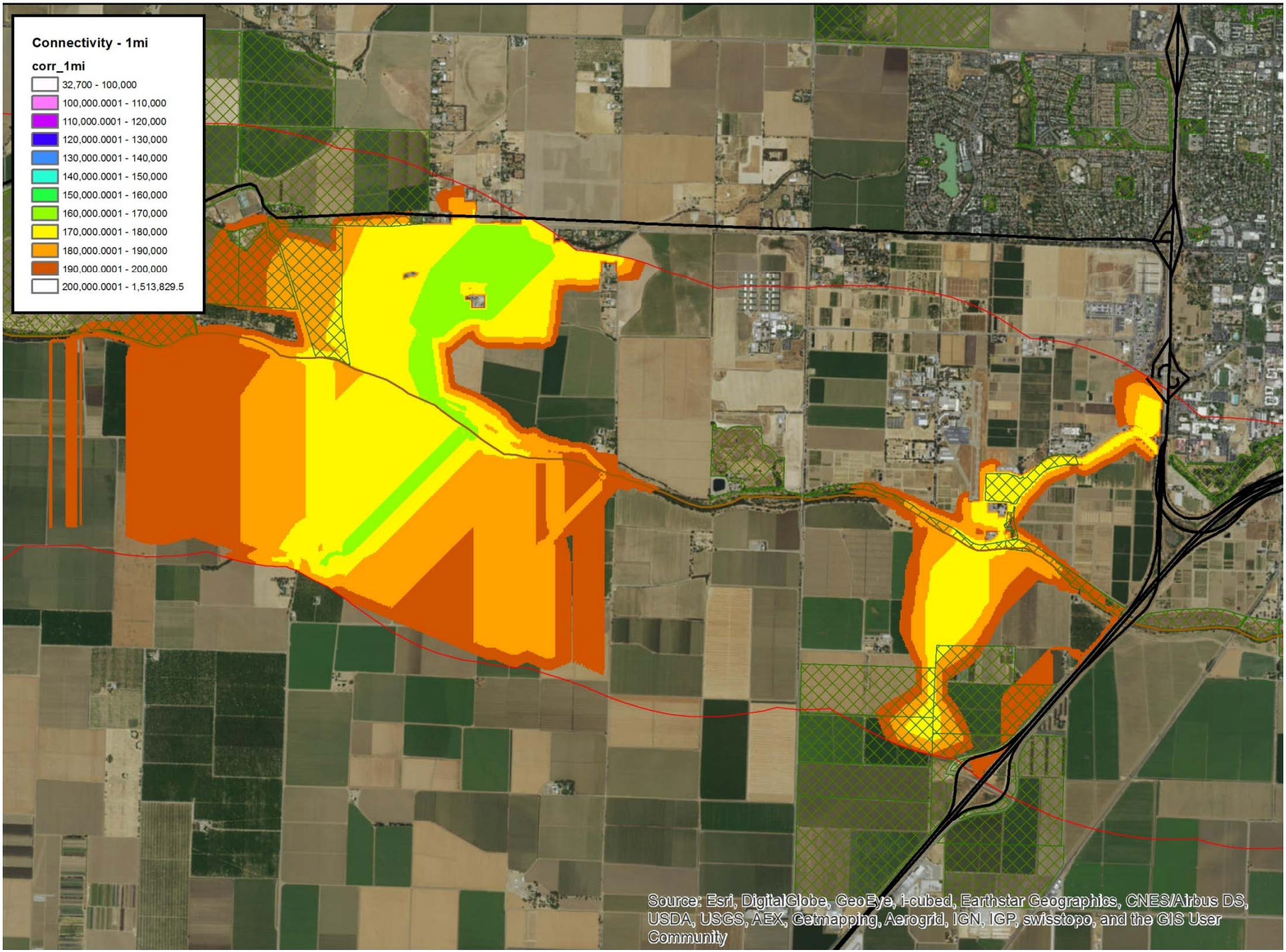
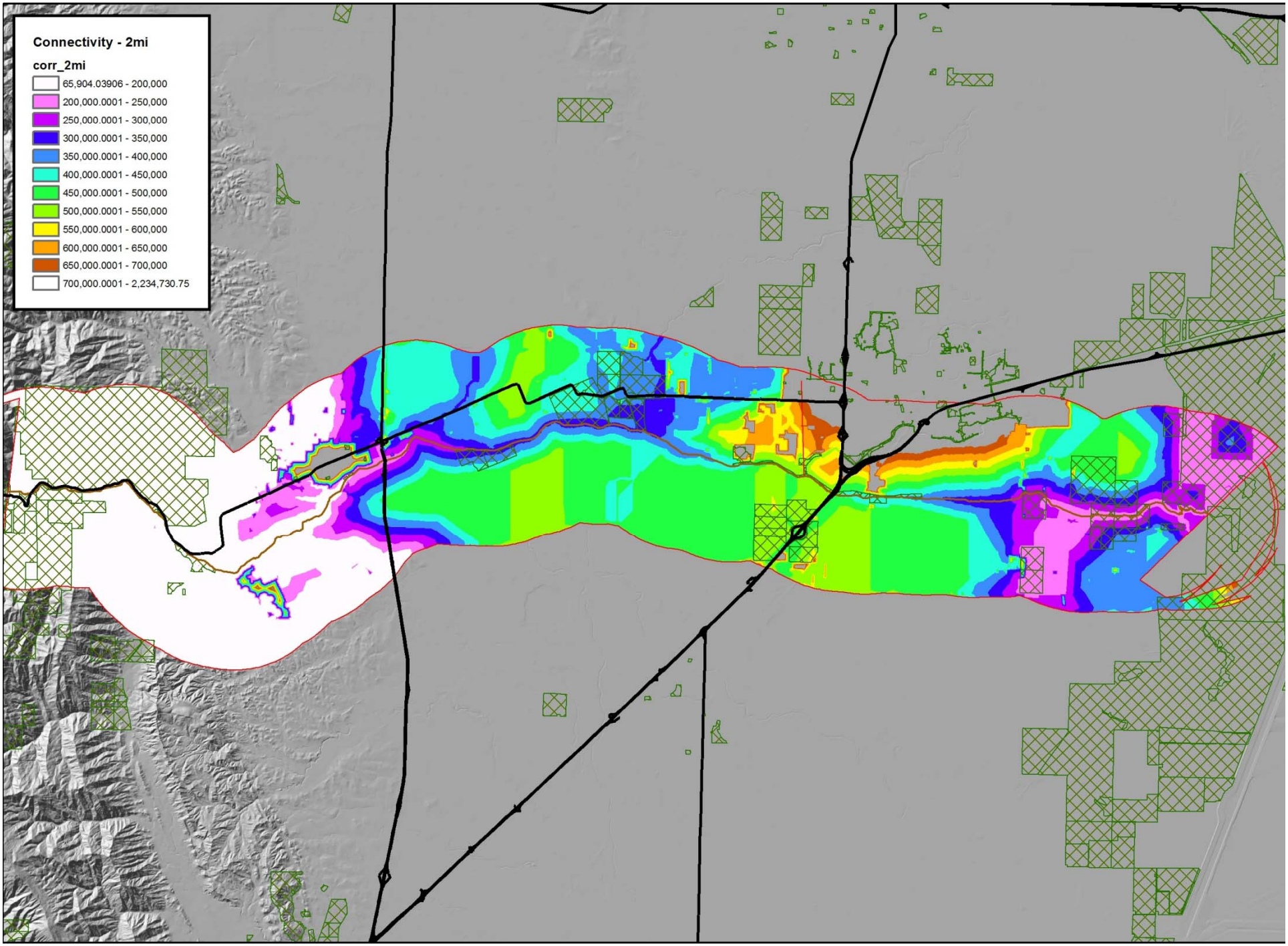
Connectivity modeling and Putah Creek

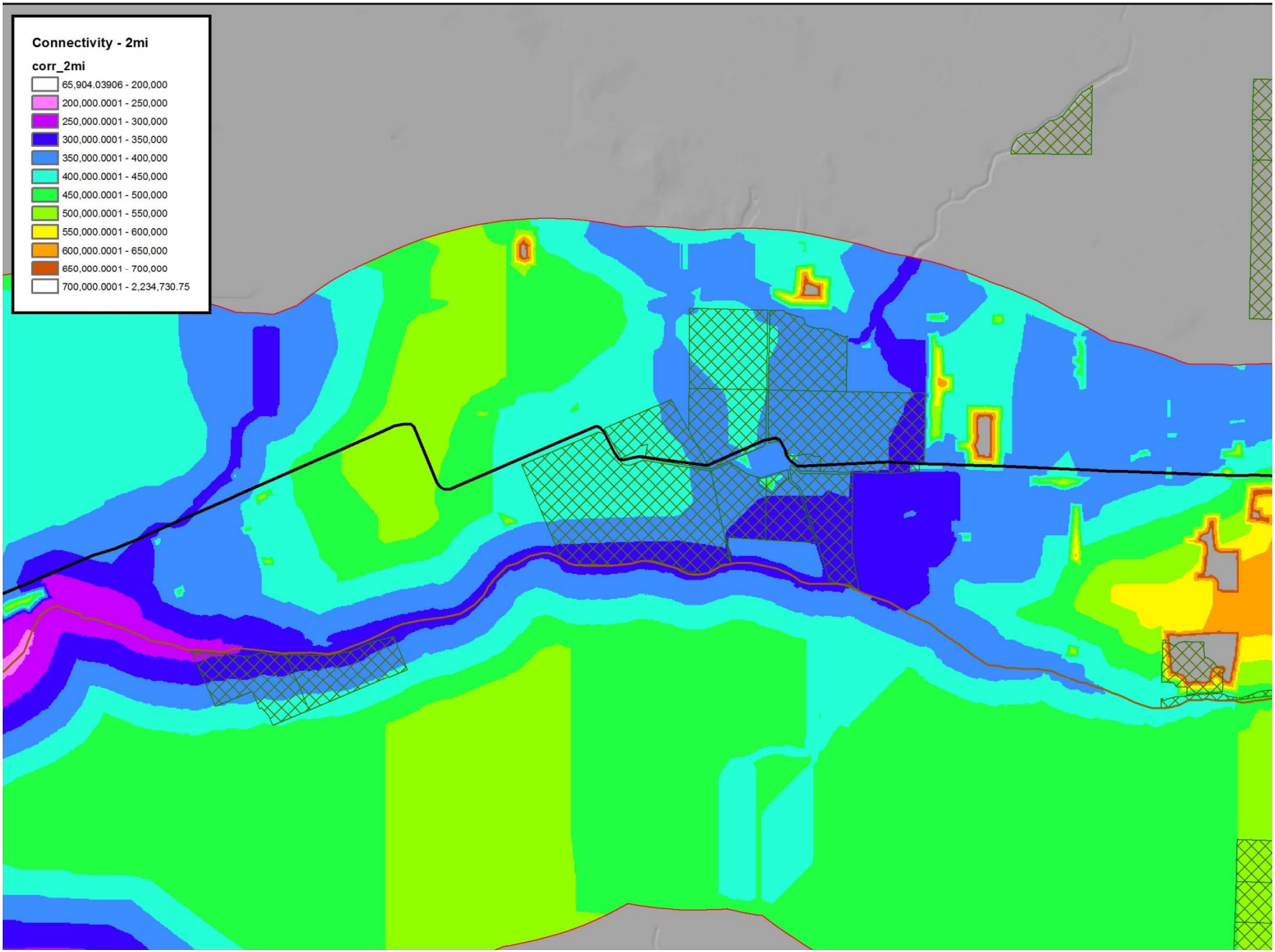
- “Least cost” connectivity modeling: i.e. finding the path of least resistance between two areas
- Classified land cover into four classes and assigned (cost): non-developed (10), water (50), agriculture (100), urban (1,000)
- Buffered Putah Creek by 3 distances: 1 mile, 2 miles, and 5 miles
- Assessed connectivity at each of the three buffer scales between the buffer north of PC and south of PC
- Adjusted the color scheme of the output to pull out some details. White = highly non-developed areas, non-colored = highly developed, color ramp between (pink/purple = higher connectivity, yellow/brown = lower connectivity
- I zoomed in for each of the 3 buffer scales to areas in the agricultural matrix that had higher connectivity scores (then removed the connectivity surface to allow for viewing of the aerial imagery)


Connectivity - 1mi
corr_1mi
32,700 - 100,000
100,000.0001 - 110,000
110,000.0001 - 120,000
120,000.0001 - 130,000
130,000.0001 - 140,000
140,000.0001 - 150,000
150,000.0001 - 160,000
160,000.0001 - 170,000
170,000.0001 - 180,000
180,000.0001 - 190,000
190,000.0001 - 200,000
200,000.0001 - 1,513,829.5

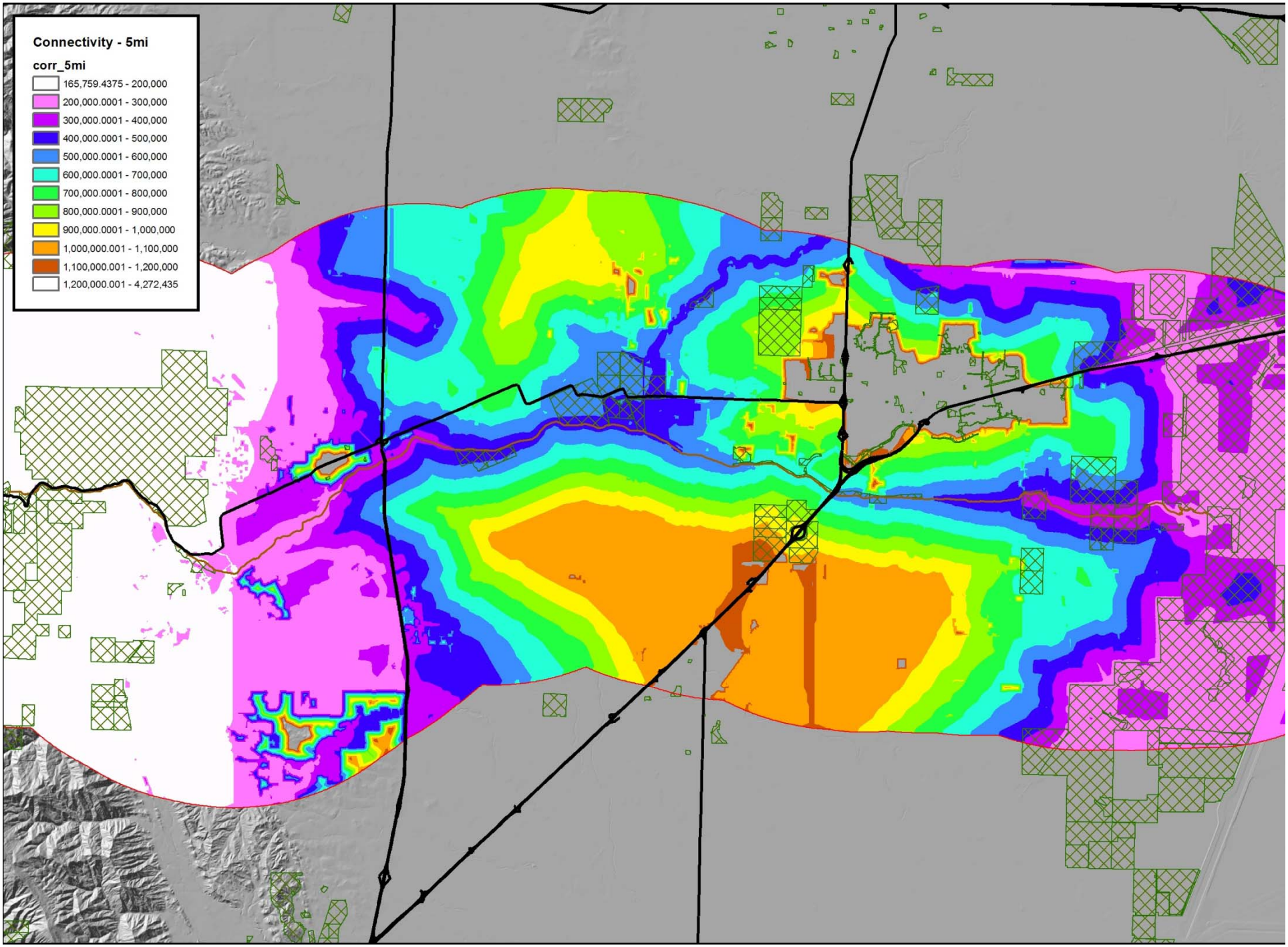

Connectivity - 1mi
corr_1mi
32,700 - 100,000
100,000.0001 - 110,000
110,000.0001 - 120,000
120,000.0001 - 130,000
130,000.0001 - 140,000
140,000.0001 - 150,000
150,000.0001 - 160,000
160,000.0001 - 170,000
170,000.0001 - 180,000
180,000.0001 - 190,000
190,000.0001 - 200,000
200,000.0001 - 1,513,829.5
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

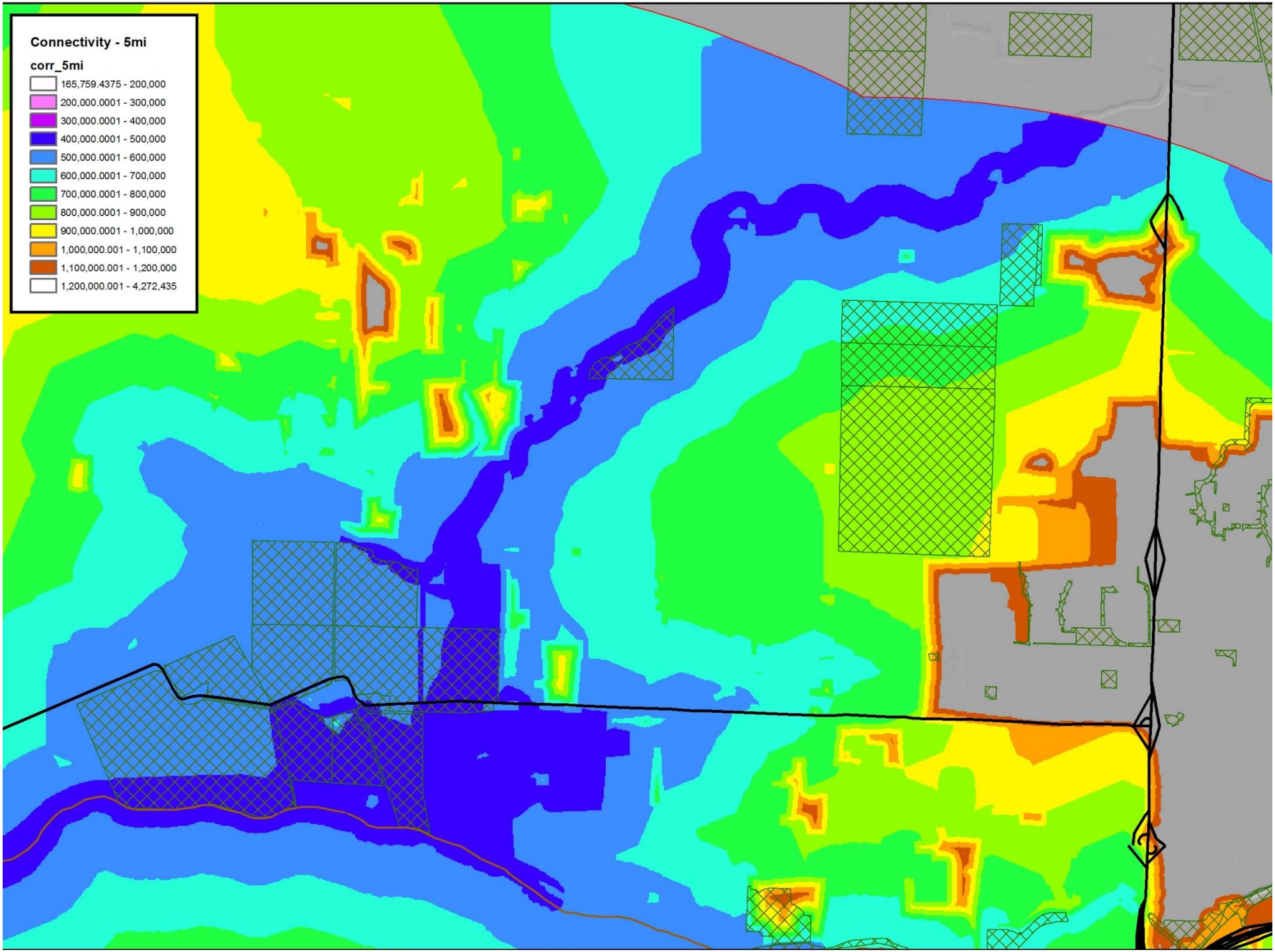

Connectivity - 1mi
Glide Ranch
Old Putah Creek channel
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

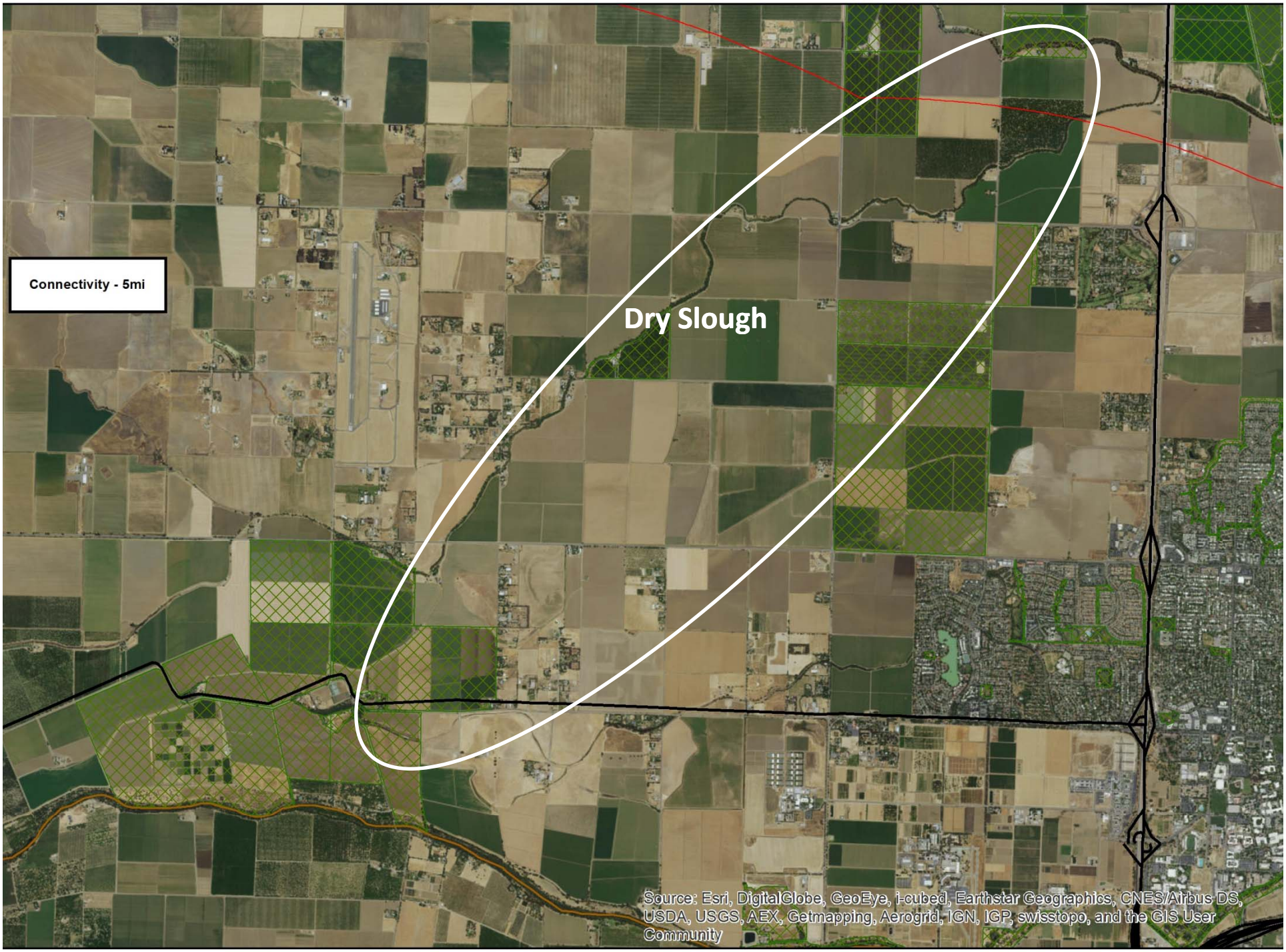

Connectivity - 2mi
corr_2mi
65,904.03906 - 200,000
200,000.0001 - 250,000
250,000.0001 - 300,000
300,000.0001 - 350,000
350,000.0001 - 400,000
400,000.0001 - 450,000
450,000.0001 - 500,000
500,000.0001 - 550,000
550,000.0001 - 600,000
600,000.0001 - 650,000
650,000.0001 - 700,000
700,000.0001 - 2,234,730.75


Connectivity - 2mi
corr_2mi
65,904.03906 - 200,000
200,000.0001 - 250,000
250,000.0001 - 300,000
300,000.0001 - 350,000
350,000.0001 - 400,000
400,000.0001 - 450,000
450,000.0001 - 500,000
500,000.0001 - 550,000
550,000.0001 - 600,000
600,000.0001 - 650,000
650,000.0001 - 700,000
700,000.0001 - 2,234,730.75


Connectivity - 2mi
Dry Slough
Dry Slough/
Glide Ranch
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community


Connectivity - 5mi
corr_5mi
165,759.4375 - 200,000
200,000.0001 - 300,000
300,000.0001 - 400,000
400,000.0001 - 500,000
500,000.0001 - 600,000
600,000.0001 - 700,000
700,000.0001 - 800,000
800,000.0001 - 900,000
900,000.0001 - 1,000,000
1,000,000.001 - 1,100,000
1,100,000.001 - 1,200,000
1,200,000.001 - 4,272,435


Connectivity - 5mi
corr_5mi
165,759.4375 - 200,000
200,000.0001 - 300,000
300,000.0001 - 400,000
400,000.0001 - 500,000
500,000.0001 - 600,000
600,000.0001 - 700,000
700,000.0001 - 800,000
800,000.0001 - 900,000
900,000.0001 - 1,000,000
1,000,000.001 - 1,100,000
1,100,000.001 - 1,200,000
1,200,000.001 - 4,272,435


Connectivity - 5mi
Dry Slough
Source: Esri, DigitalGlobe, GeoEye, i-cubed, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community