

True Color Map of Western Los Angeles

Cartography by Randall Scharpf for Geography 7



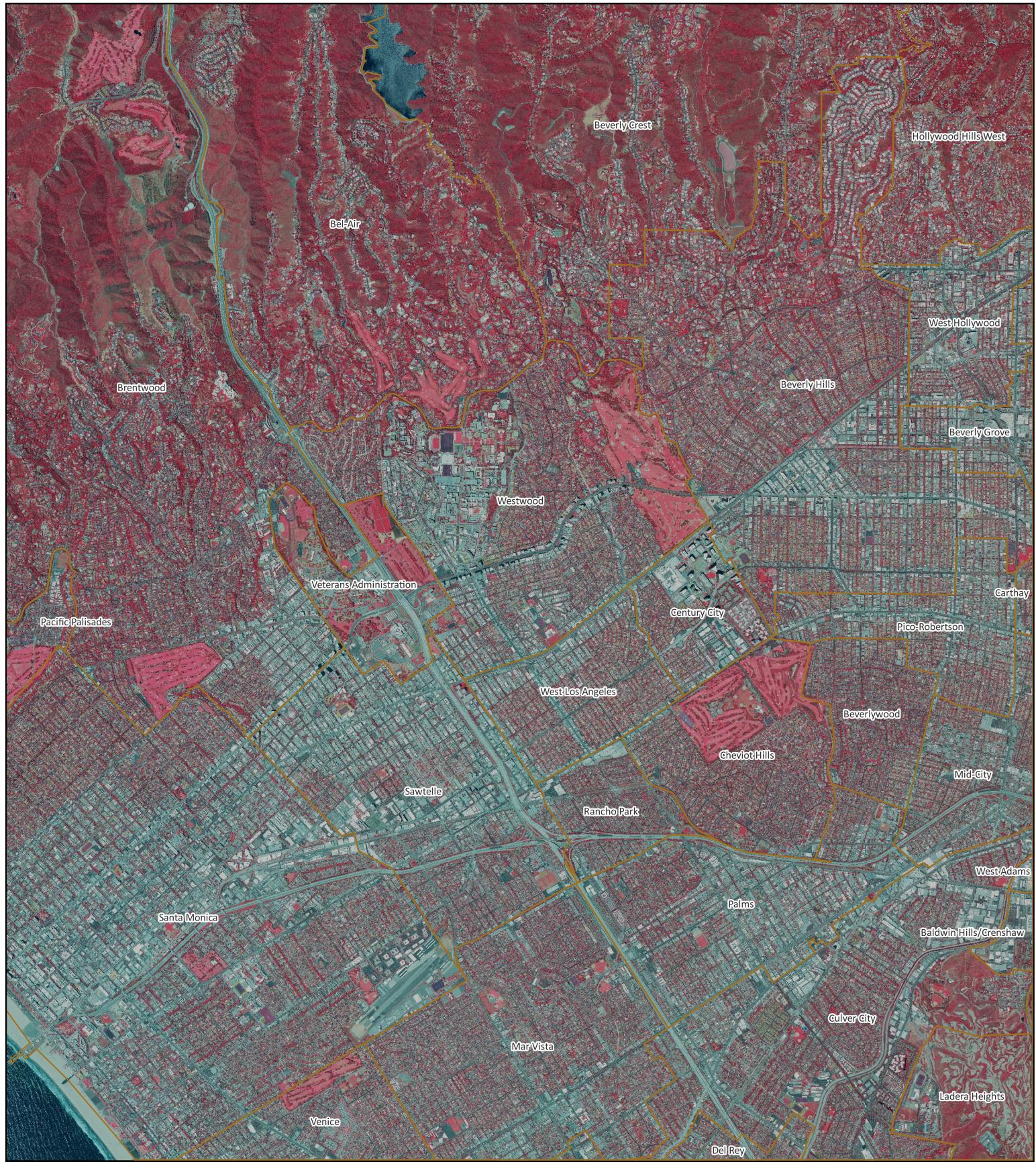
0 1 2 3 mi

Scale is 1:58,000

NAIP imagery and neighborhood data from Bruinlearn course website

Color Infrared Map of Western Los Angeles

Cartography by Randall Scharpf for Geography 7

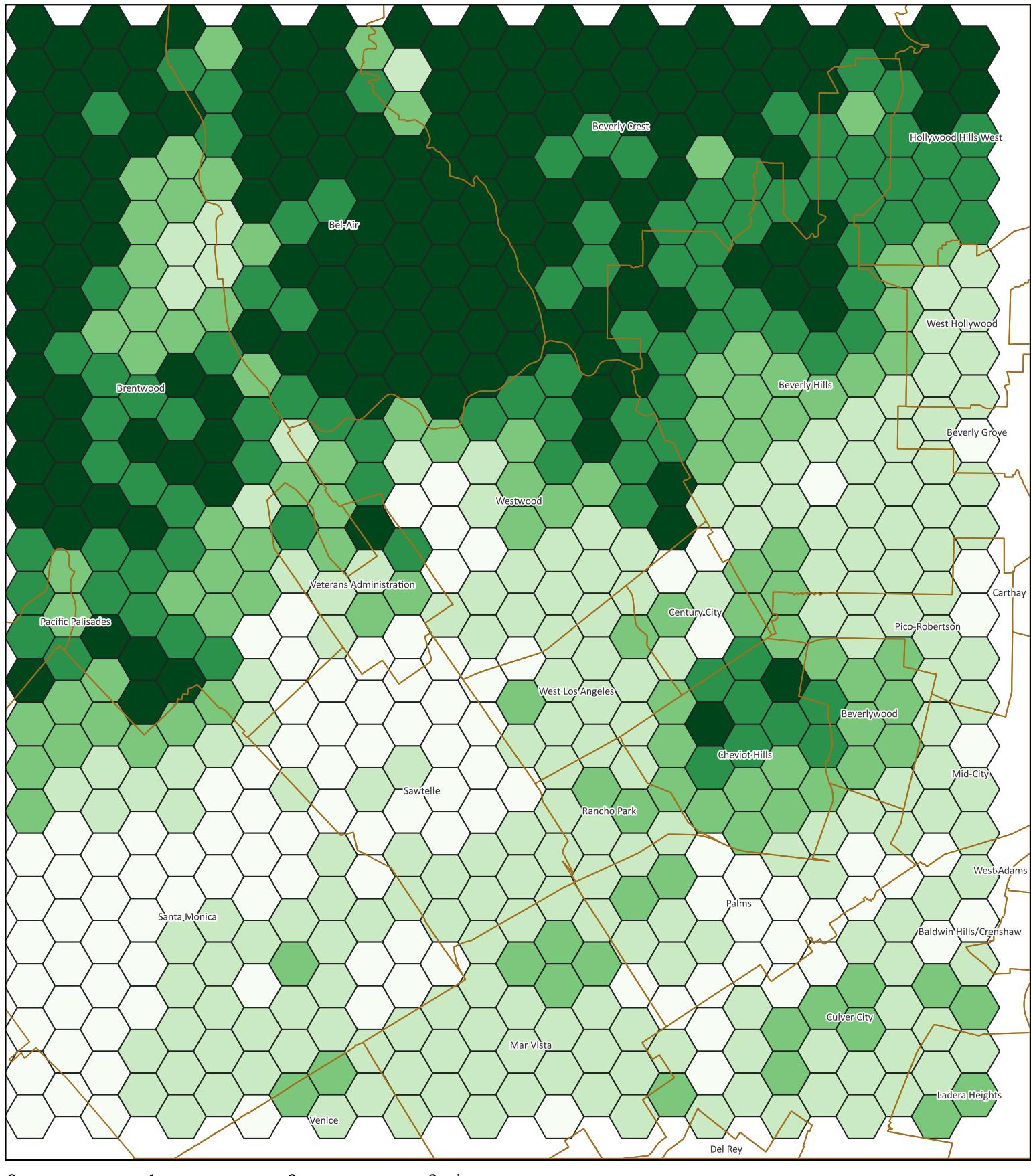


0 1 2 3 mi

Scale is 1:58,000

Map of the Vegetated Portions of Western Los Angeles

Cartography by Randall Scharpf for Geography 7



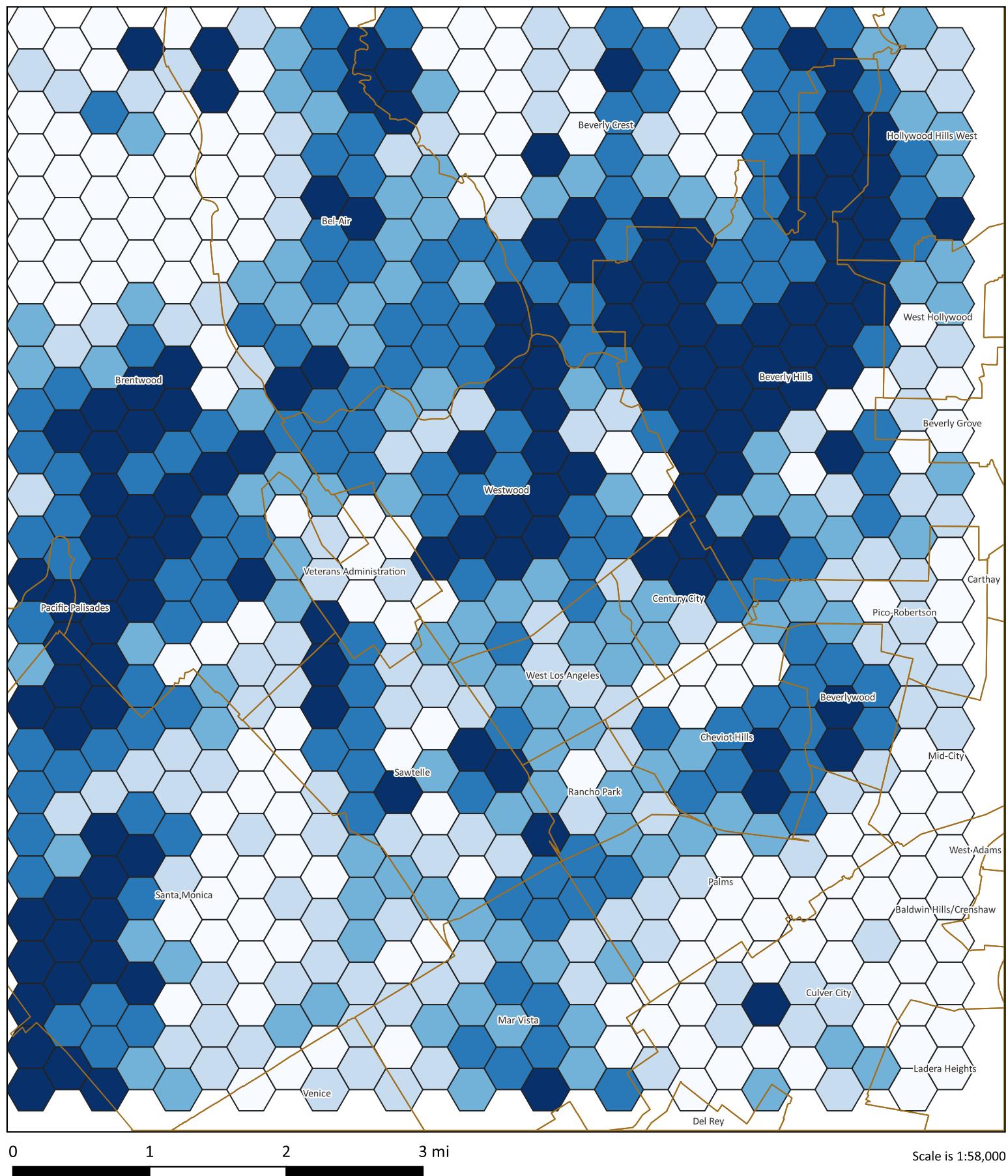
Percent Vegetated

< 10% 10 - 20% 20 - 30% 30 - 40% > 40%

NAIP imagery and neighborhood data from Bruinlearn course website

Map of the Water-Covered Portions of Western Los Angeles

Cartography by Randall Scharpf for Geography 7



Percent Water-Covered

< 0.1%

0.1 - 0.2 %

0.2% - 0.35%

0.35% - 0.6%

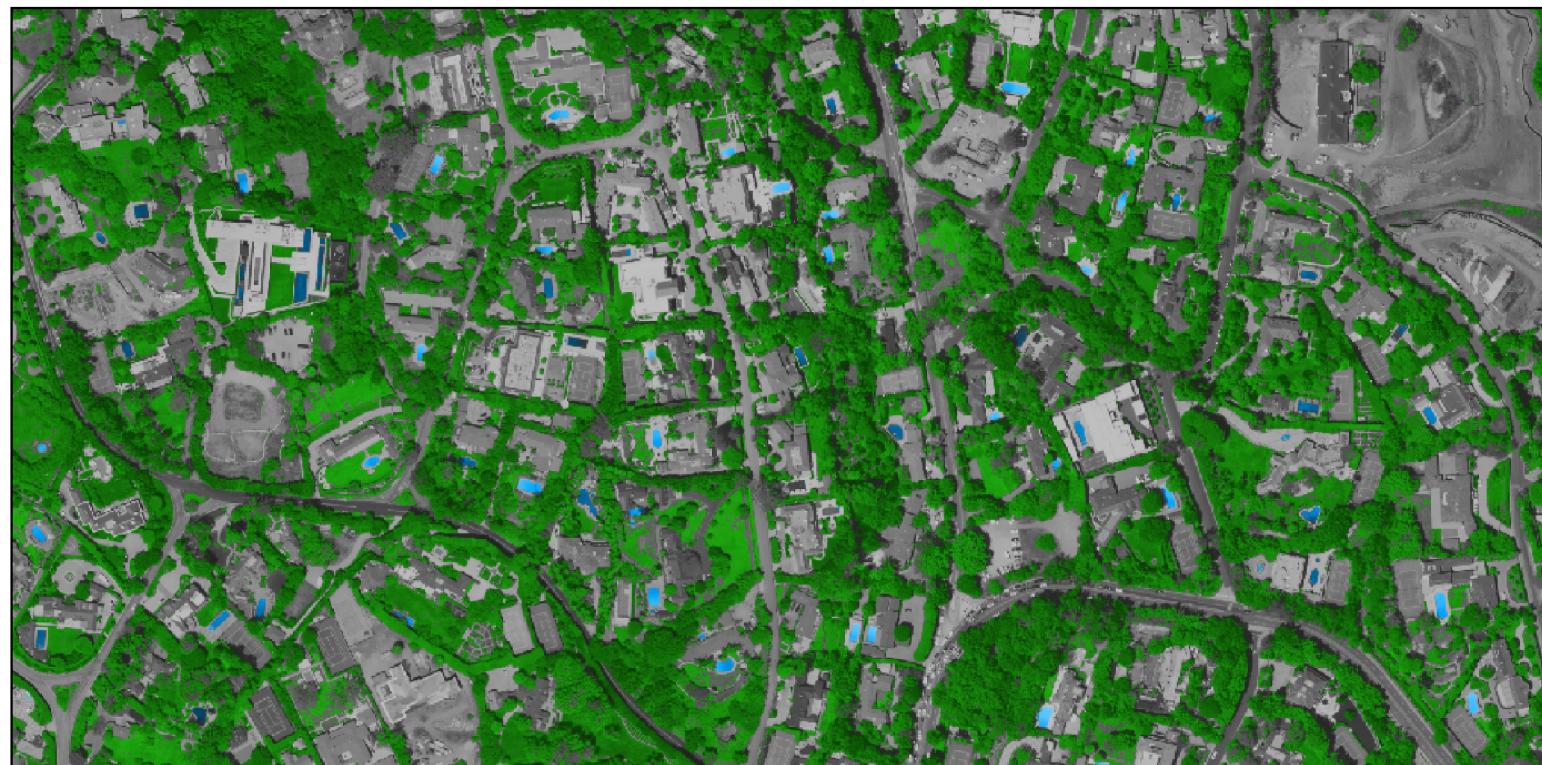
 > 0.6%

NAIP imagery and neighborhood data from Bruinlearn course website

Low-Vegetation, Low-Water-Coverage Area in the Palms Neighborhood



High-Vegetation, High-Water-Coverage Area in Bel-Air and Beverly Hills



0 0.1 0.2 0.3 mi

Scale is 1:5,000

Water-covered Areas 
Vegetated Areas 

NAIP imagery and neighborhood data from Bruinlearn course website
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We see the largest areas of high-density vegetation in the neighborhoods of Bel-Air and Beverly Hills. These areas are low-density residential neighborhoods, consisting of groups of houses surrounded by canyons of chaparral. We also see smaller areas with high-density vegetation near large city parks, golf courses, and cemeteries. We see far lower vegetation densities in the commercial and industrial areas of Santa Monica, Sawtelle, and Palms. Similarly, we don't see many swimming pools, reservoirs, or lakes in the industrial and commercial regions of West Los Angeles. This is despite a tendency of NDVI to incorrectly label large shadows that fall onto concrete as water. This concrete experiences minimal solar heating, and therefore has low near-infrared emissions that resemble the low near-infrared reflectance of water. Similarly, the concrete in cemeteries seems to confuse the NVDI values, with the headstones interspersed amongst the grasses resulting in lower densities of healthy vegetation than would otherwise be expected. These NVDI values, which produce a relatively accurate representation of vegetative cover, can be used by city planners who are looking to decrease the power used by residential air conditioning by increasing natural shade cover. Areas with low density of high-NDVI locations can be targeted by urban relandscaping programs that plant new trees, while areas already having many high-NDVI locations can be processed after the most impacted areas are taken care of. It can also be used to demonstrate a need for new urban design products in commercial and industrial areas by demonstrating the need for funding of new projects that innovate in warehouse and industrial complex design.