

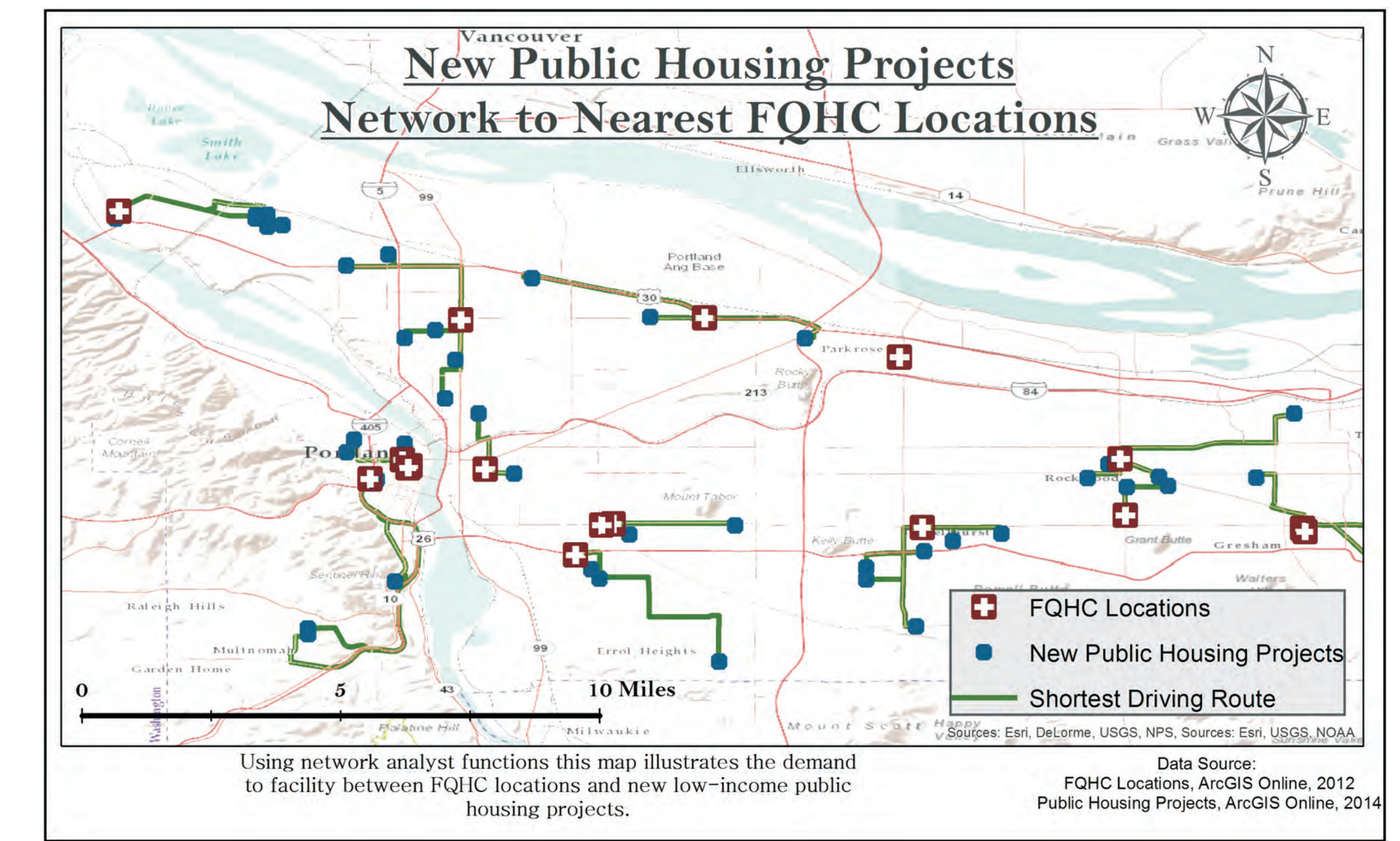
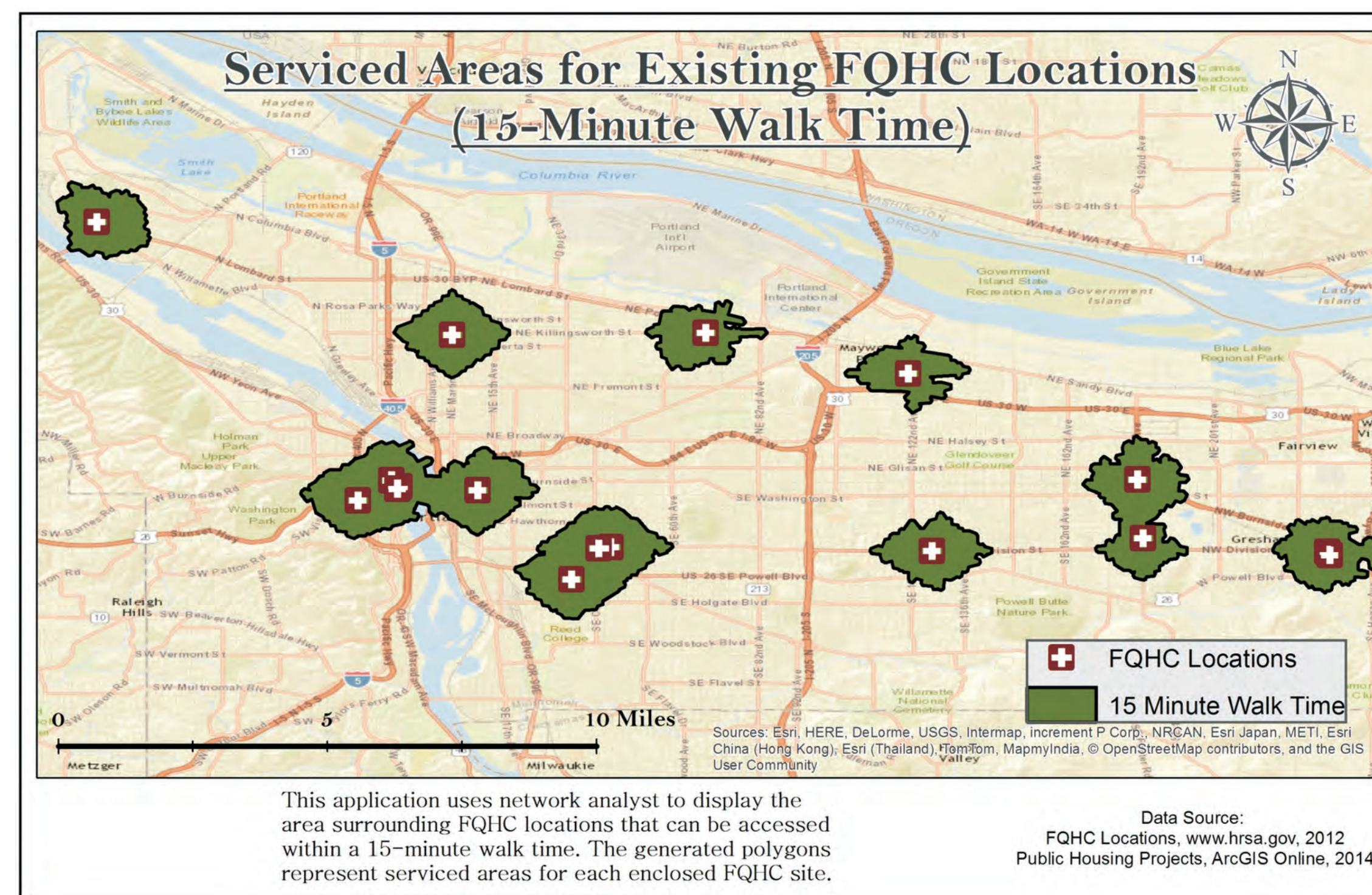
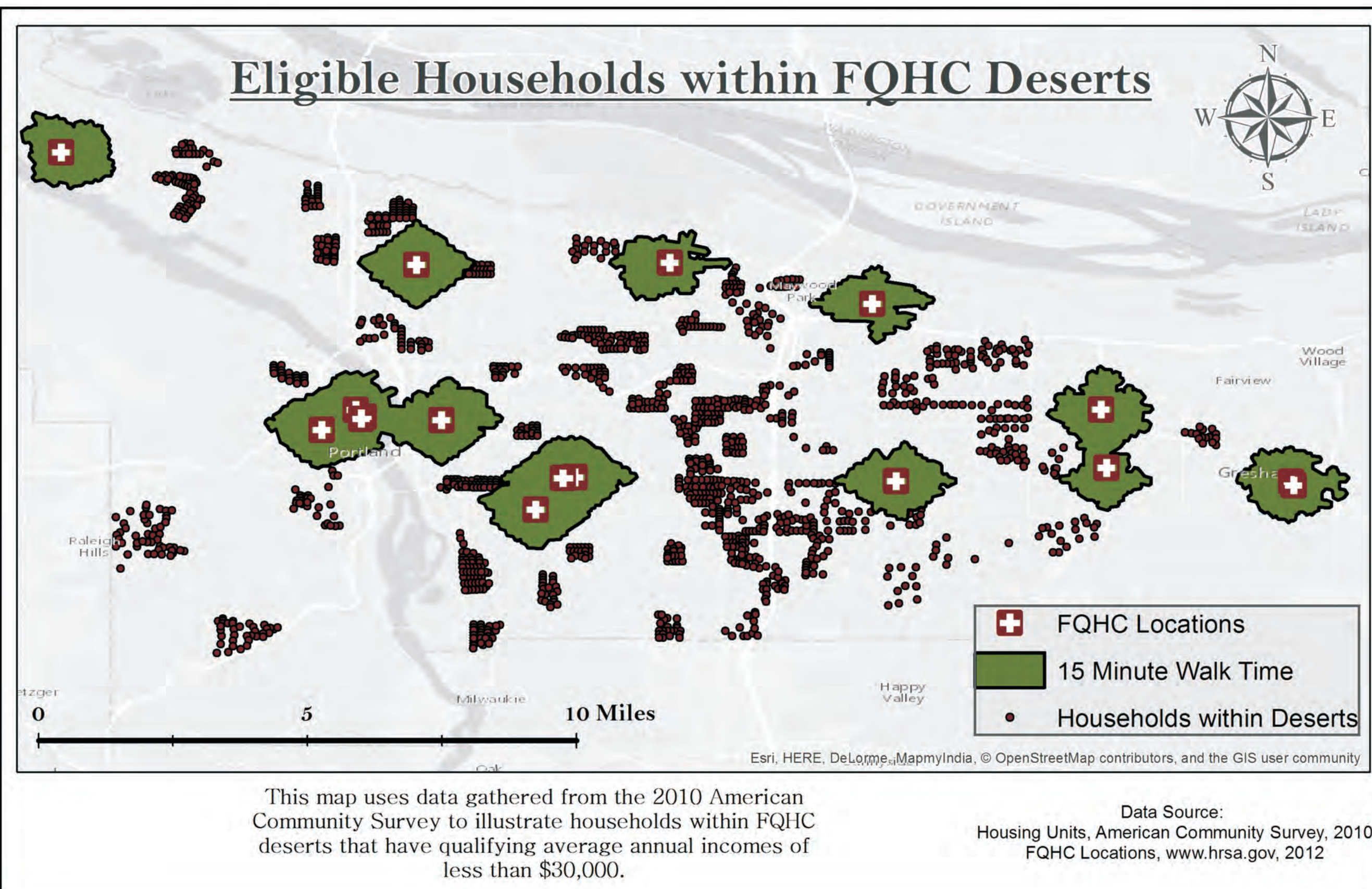
Suitability Analysis for Federally Qualified Health Centers (Primary Care Only)

Research Question:

Where are Portland Metro FQHC Deserts located? This is an important topic for state and local governments who are tasked with site selection and operation of these health centers. Ensuring that these discounted health centers are located in neighborhoods that contain high concentrations of residents who qualify for this type of healthcare is vital to ensuring money is spent in an effective way and the greatest number of residents have access to affordable healthcare.

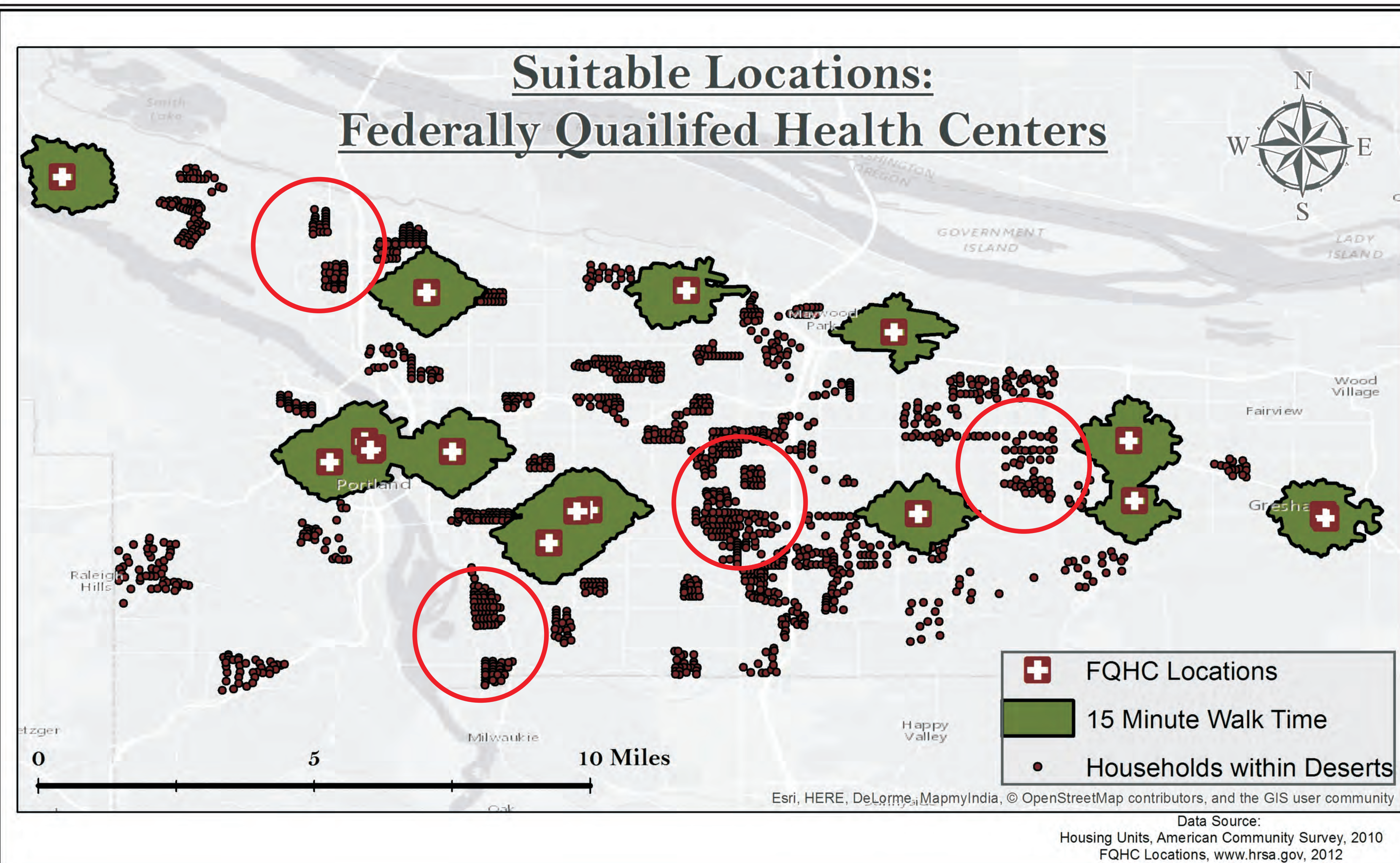
Introduction:

The Portland metro area has a number of Federally Qualified Health Centers (FQHCs) that accept medical coverage held by low-income individuals. However, the number of these facilities are insufficient in relation to the population that requires their services. Based on network analysis, this study establishes 15 minute walk time buffers around FQHCs, based on the ArcGIS interpretation as well as the FQHC definition of service areas. Once we identified these boundaries, we then identified the medical care deserts for low-income census tracts with a median income less than \$30,000 as defined by FQHC service area criteria. We investigated these areas for a suitability criteria with further geospatial analysis.



Conclusion:

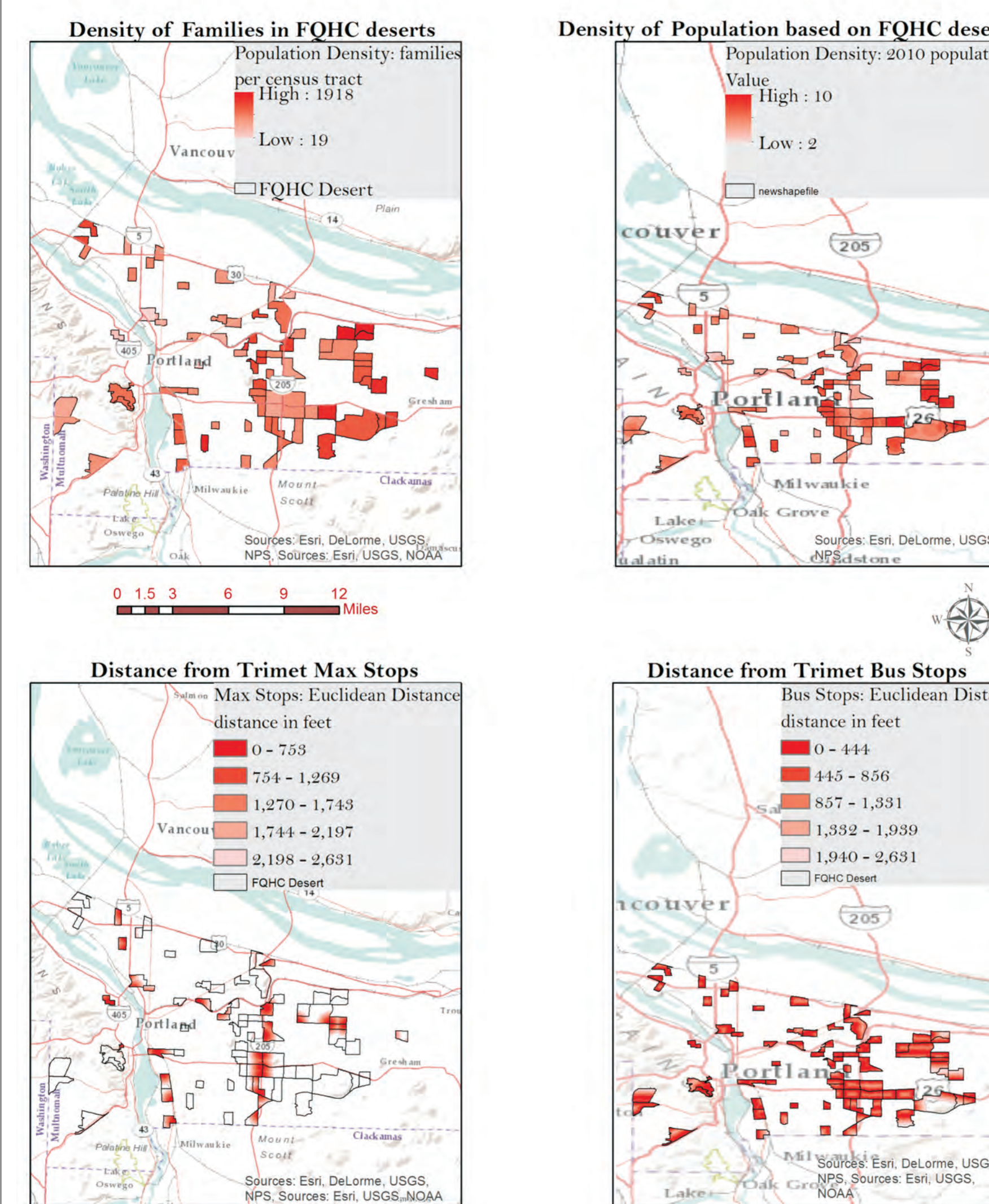
There are 97,453 people within Multnomah County who live in FQHC desert census tracts. The areas identified as optimal locations for new FQHC facilities is depicted in the final map and according to this geospatial analysis produces an output of approximately 18,397 people who would be served by the establishment of these locations.



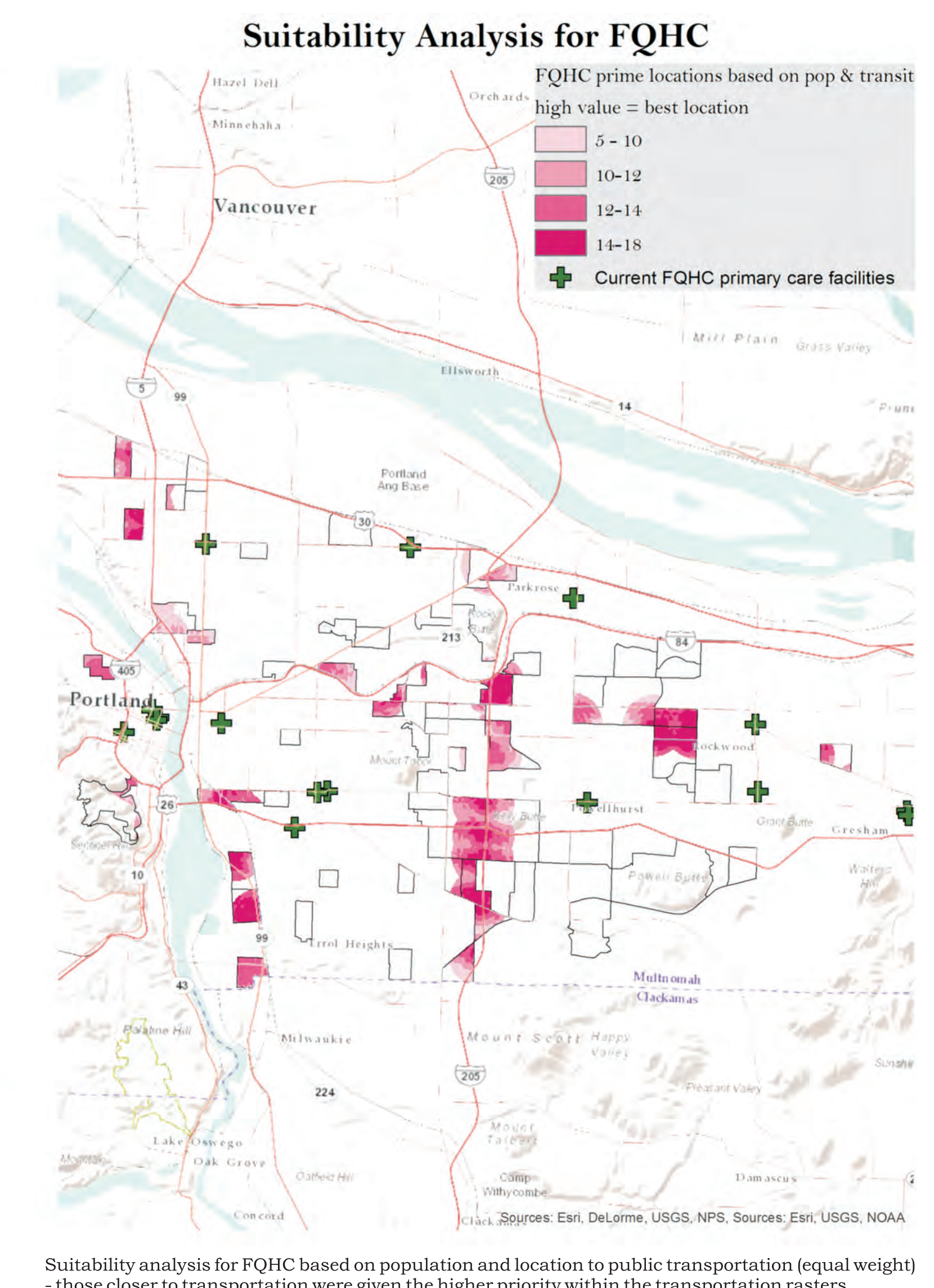
Methods:

The geospatial methods used in this project include several network analyst tools including service areas and closest facility to illustrate accessibility. Select by location, clip, buffer helped filter generated results while Euclidean Distance, Weighted Overlay, Polygon to Raster, Extract by Mask, and Map Algebra techniques are also utilized after establishing FQHC service deserts in order to generate accurate and tangible outputs based on a series of raster analysis tools. Trimet Max and bus stops were given a half mile radius to establish the accessibility analysis. We analyzed the populations by their census polygon attributes of population and point density of number of families living within the census block households, including the new low-income housing developments.

Process:



Result:



Data Sources:

Census Tracts, Streets, Multnomah County Boundary, Trimet Stops, Bus Stops:
 I:\Research\Shares\gisdata\PortlandRLIS\Current
 FQHC Locations: <http://www.cms.gov/Center/Provider-Type/Federally-Qualified-Health-Centers-FQHC-Center.html>