



HydrantTools

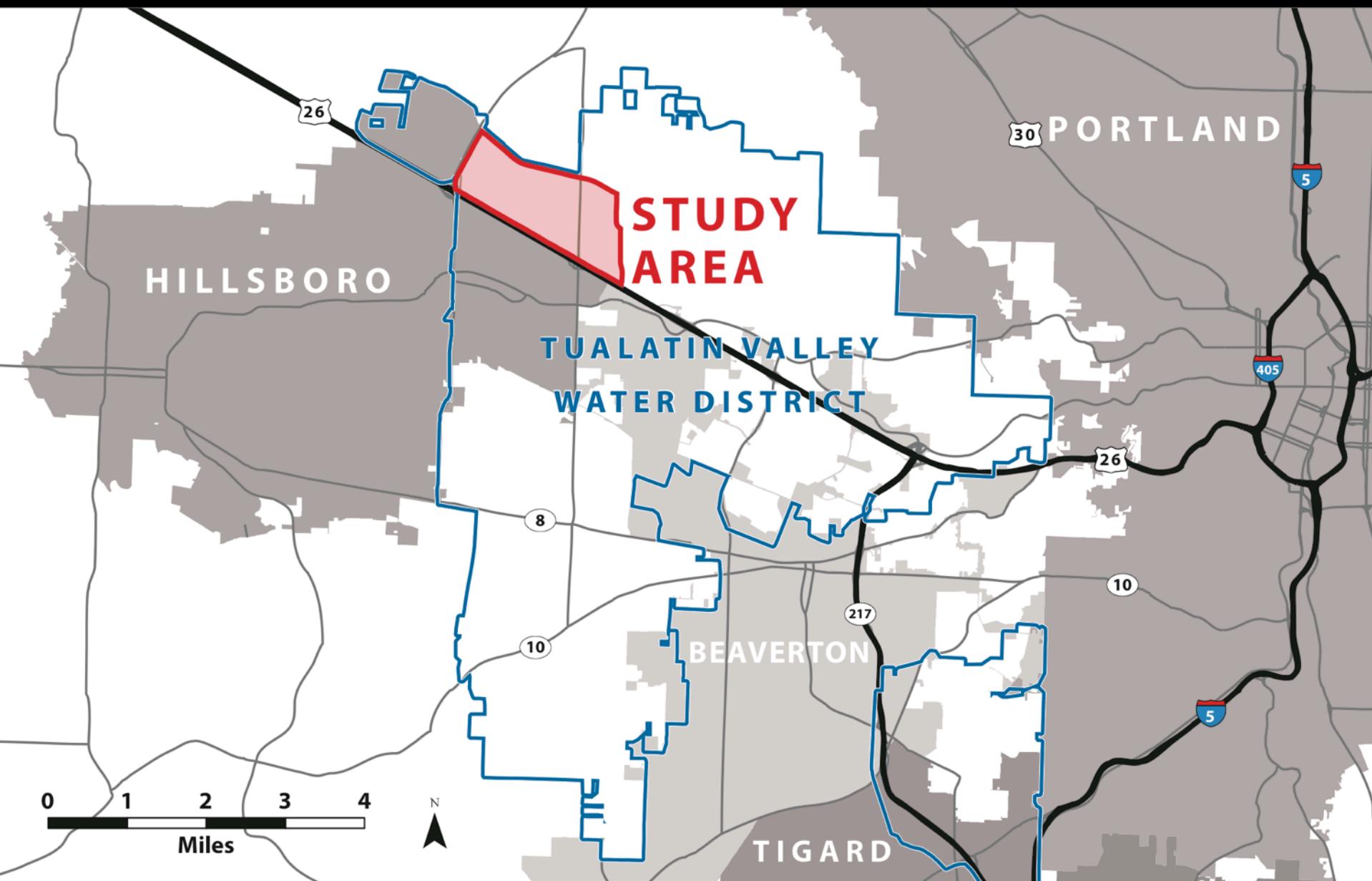
An ArcGIS Python Toolbox

Jarrett Keifer

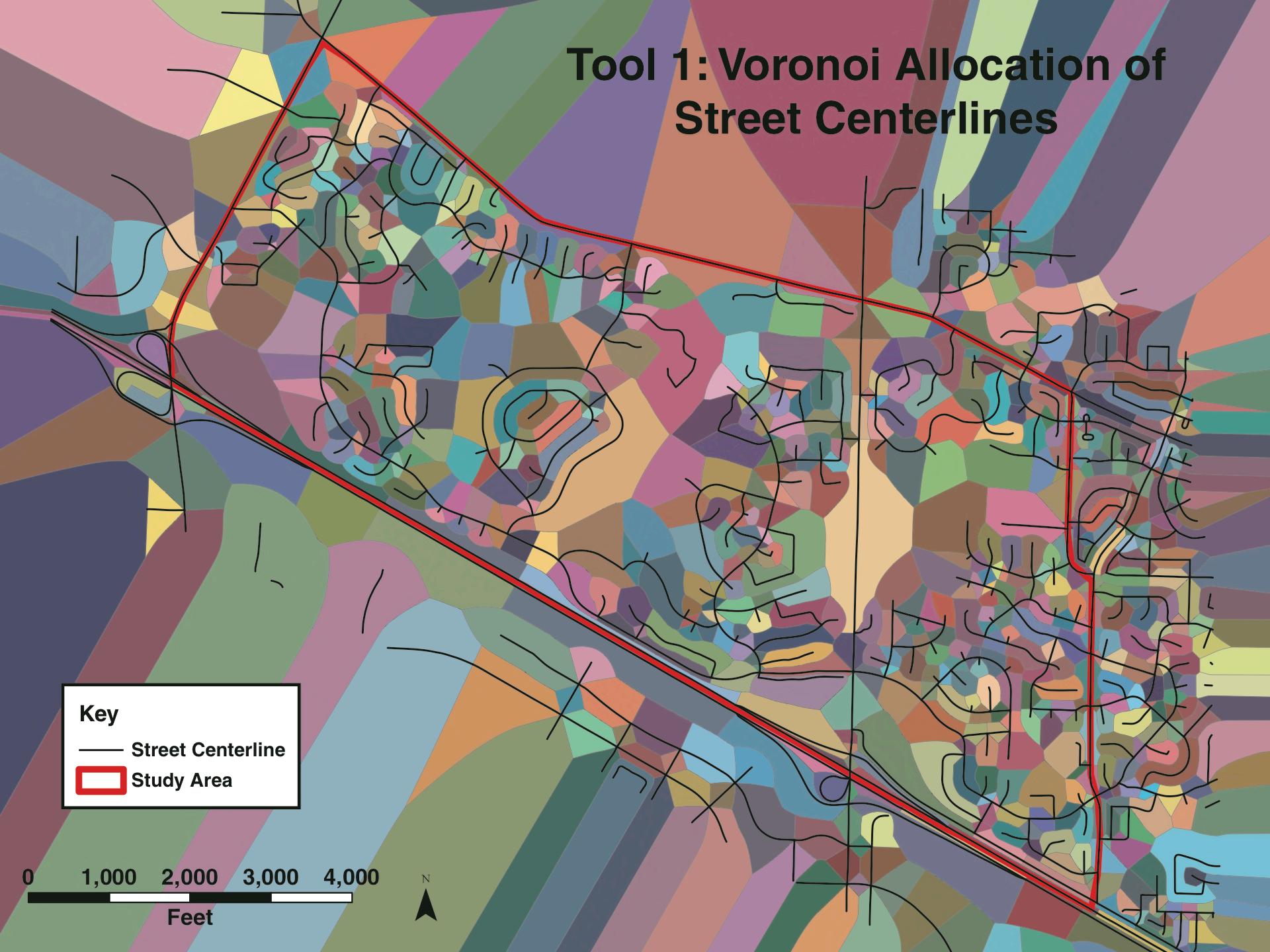
Portland State University
Tualatin Valley Water District

**Can GIS be used to effectively model
hydrant coverage?**

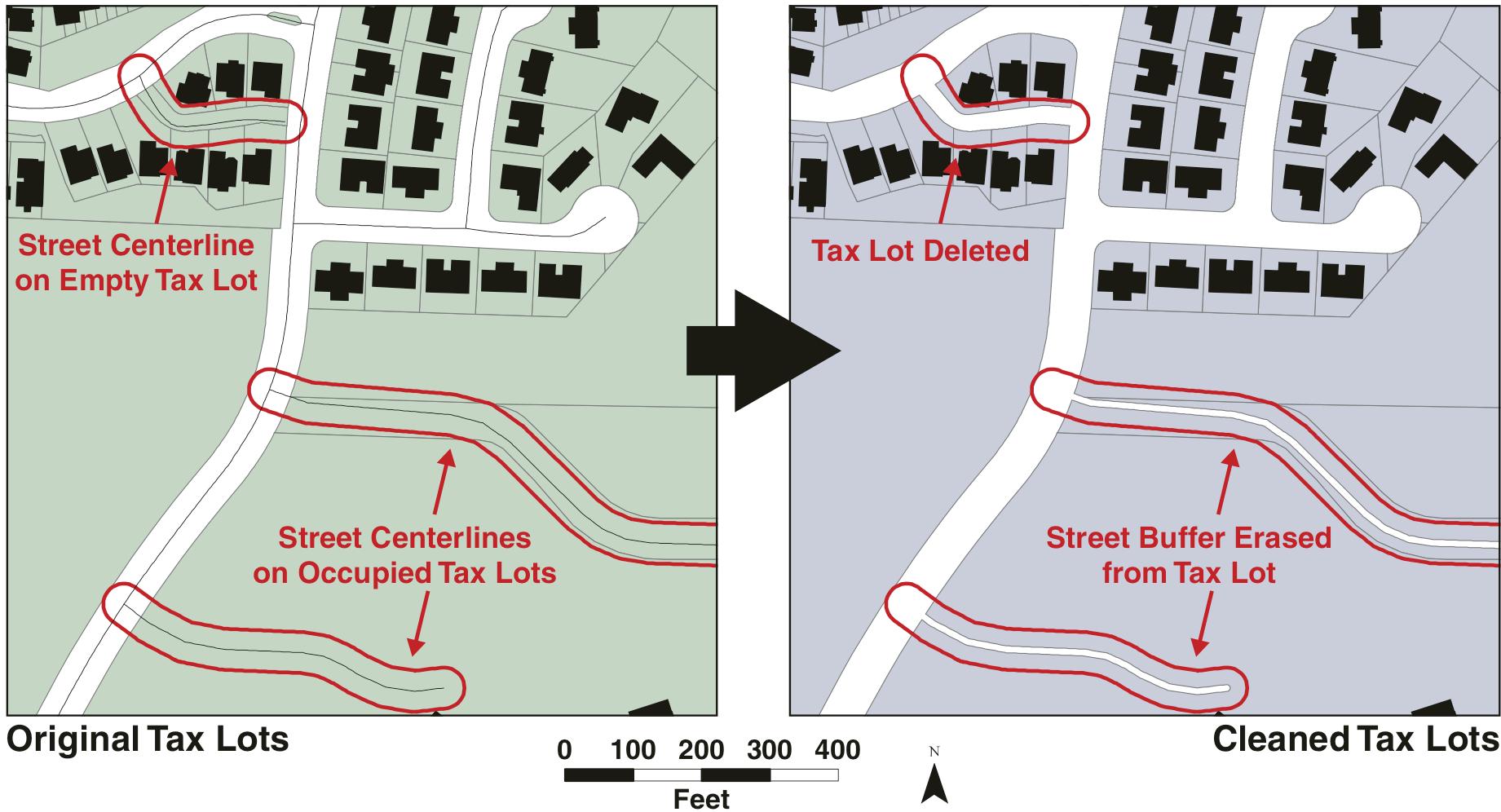
**Can python automation make a solution
easy and repeatable?**



Tool 1: Voronoi Allocation of Street Centerlines



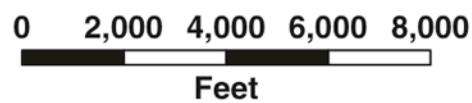
Tool 2: Clean Up Tax Lots



Tool 3: Create Right-of-Way Polygon

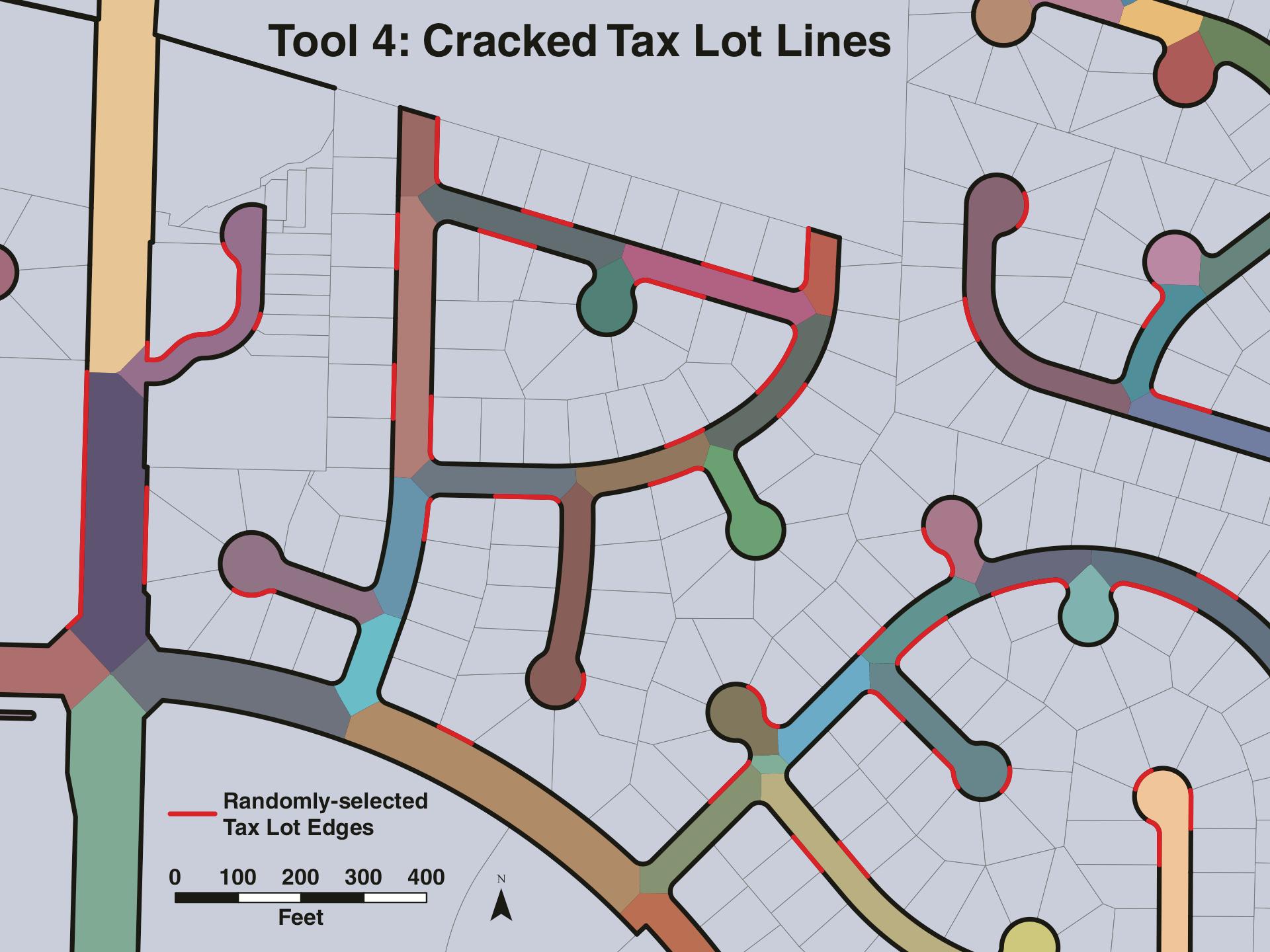


A) Create Polygon Slightly Larger Than Tax Lot Extent



B) Erase Cleaned Tax Lots From Polygon Leaving Right-of-Ways

Tool 4: Cracked Tax Lot Lines



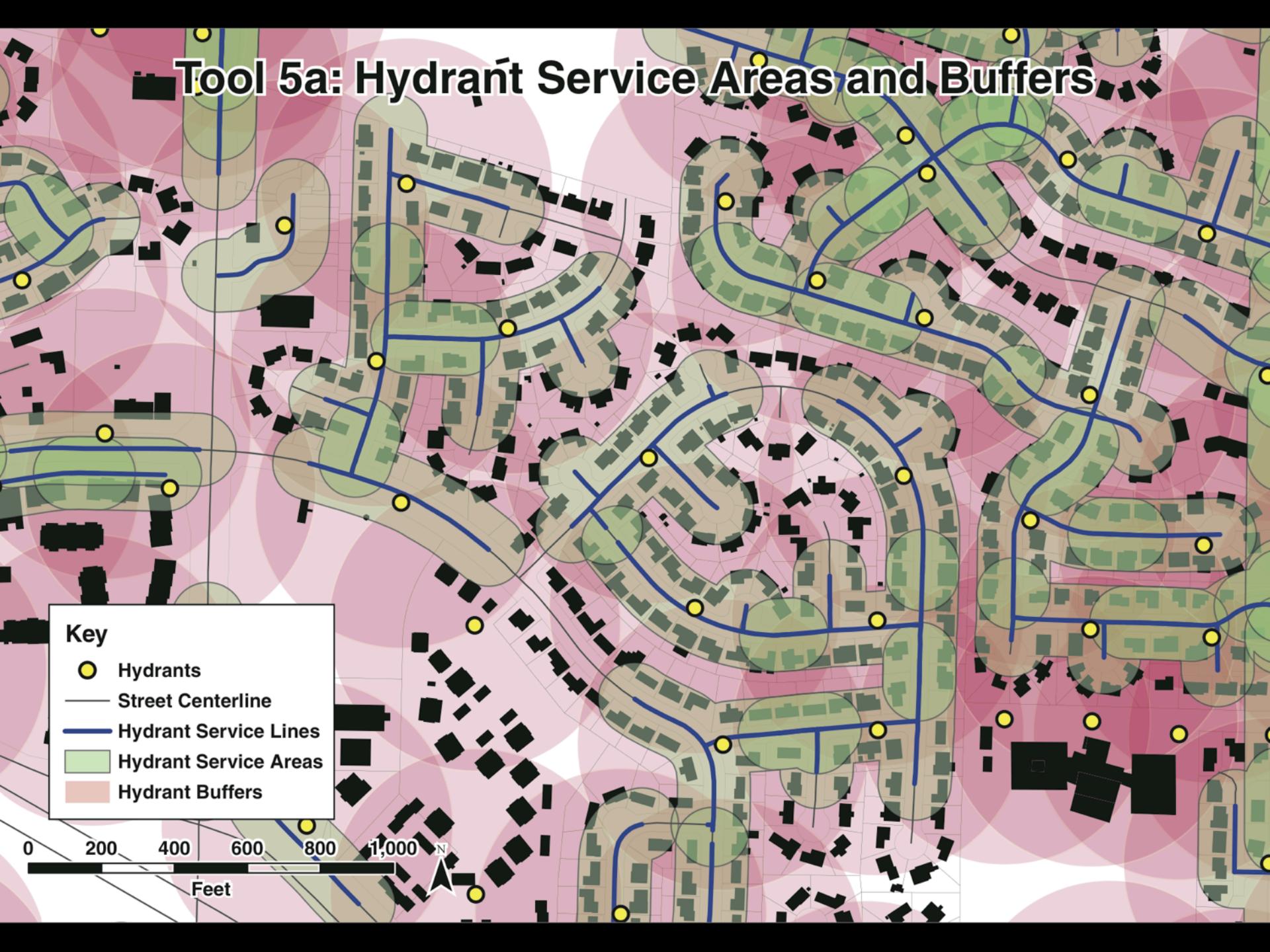
Randomly-selected
Tax Lot Edges

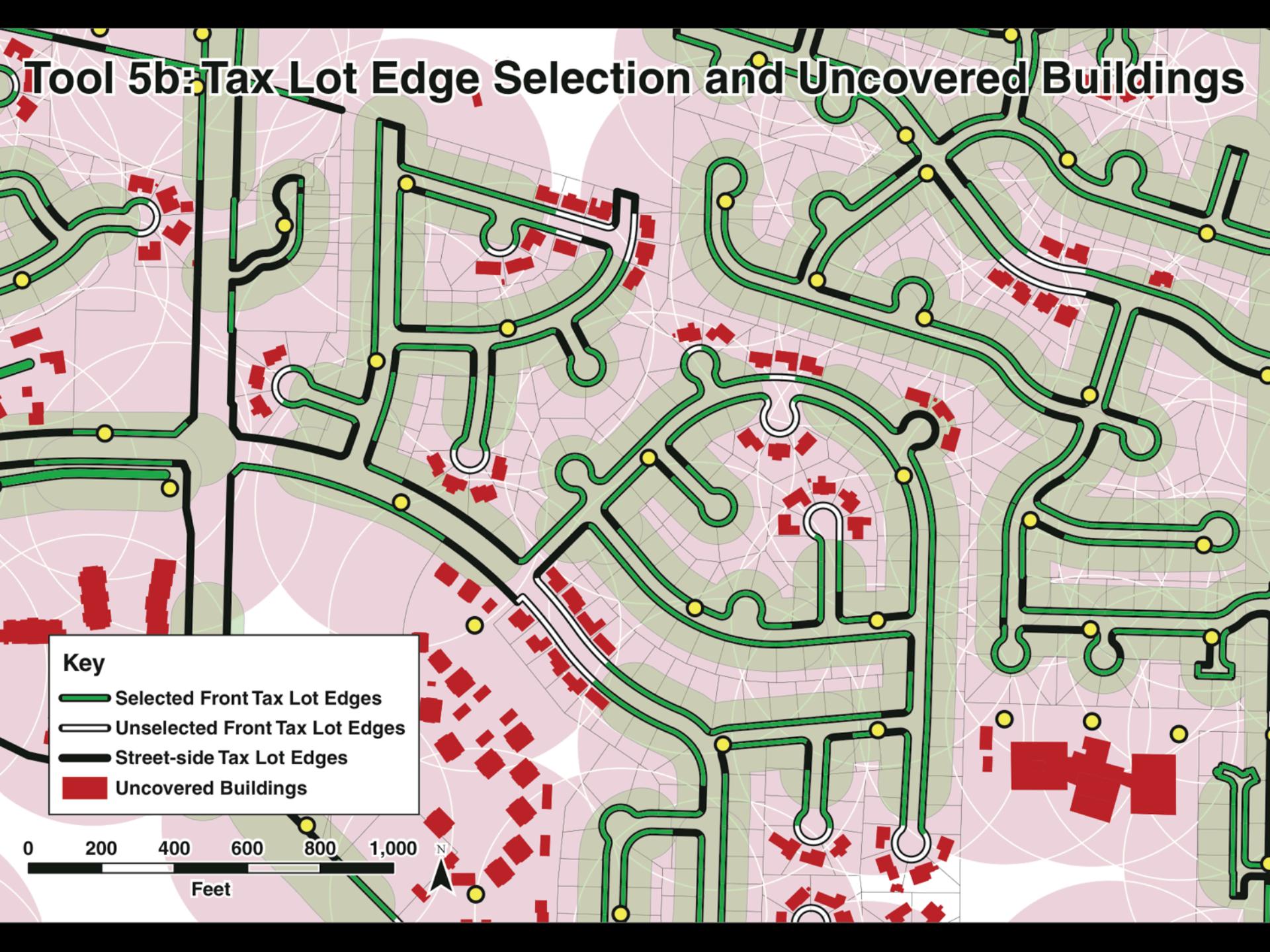
0 100 200 300 400

Feet

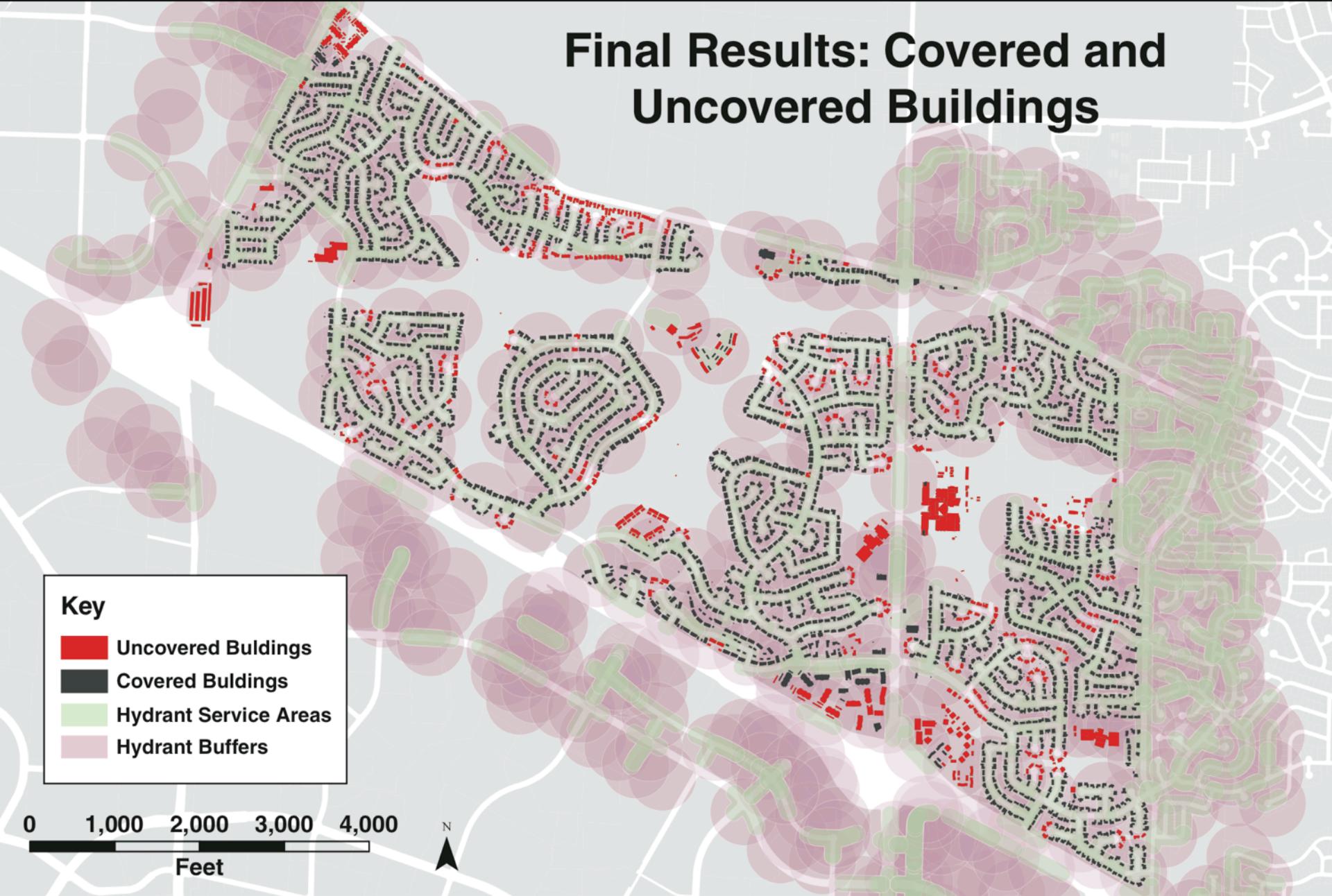
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Tool 5a: Hydrant Service Areas and Buffers





Final Results: Covered and Uncovered Buildings





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How to get HydrantTools:

Go to jkeifer.github.io/HydrantTools and
download it today!