

Locating Potential Vacant Property Lots for New Community Gardens in Portland, Oregon: A Socio-Economic and Spatial Evaluation

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GIS II Term Project

Introduction

Purpose

Locate vacant property lots within the Portland city boundary for siting new community gardens.

Community Improvement

Outdoor activity that brings people together and creates investment in a community

Alternative food product outlet for communities identified as 'in poverty'

Methods

Identify neighborhoods with the highest levels of total and child poverty according to 2004 RLIS census datasets

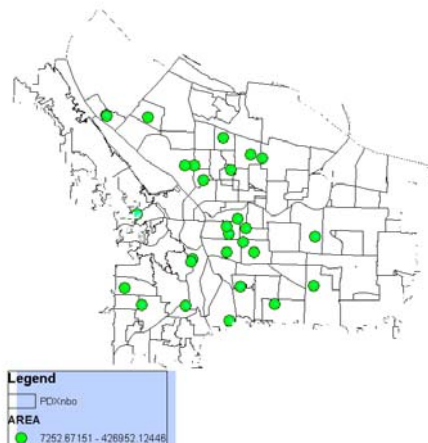
Aggregate block group level census data, provided by RLIS, to the level of neighborhood boundaries

Derive straight line distances from current community gardens, schools, and recreational parks

Reclassify and weight with neighborhood census data
Designed to identify community zones for potential gardens

Set buffers around schools and current gardens to further narrow the possible property lots

Distribution of Current
Community Gardens with
Neighborhood Boundary Lines

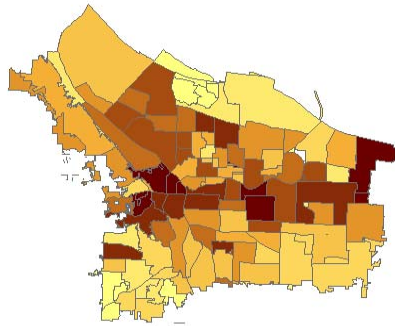


Green circles indicate all
current Portland Parks and
Recreation sponsored
community gardens

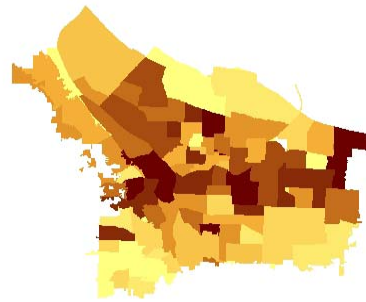
The count equals 28 total

Neighborhood Poverty Normalized
by Population: Portland, Oregon

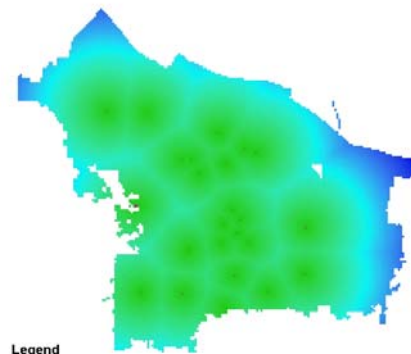
Vector



Raster

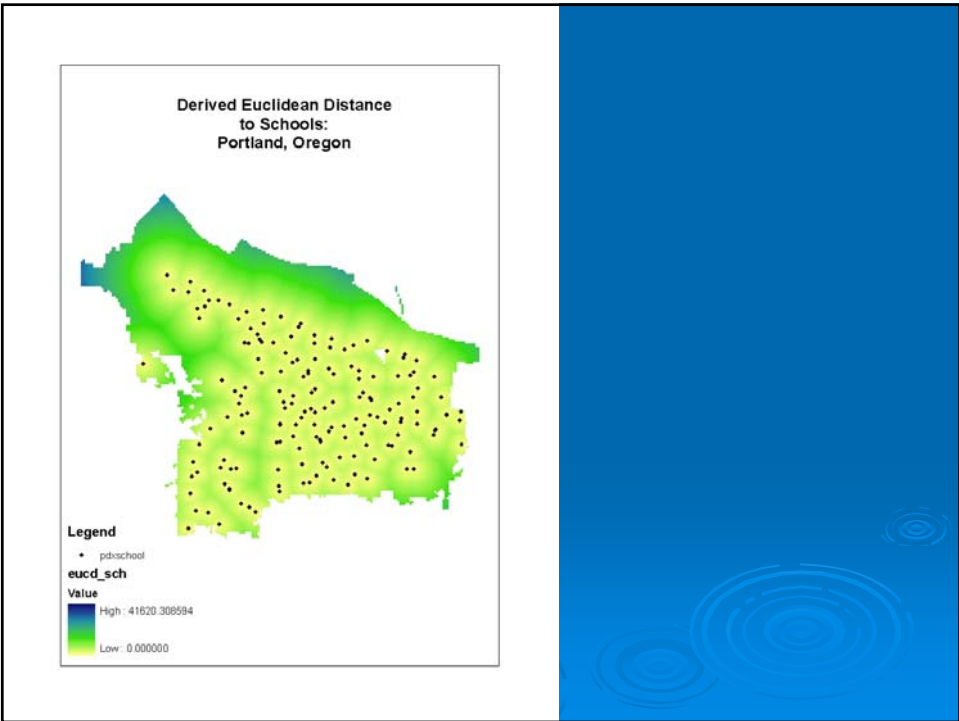
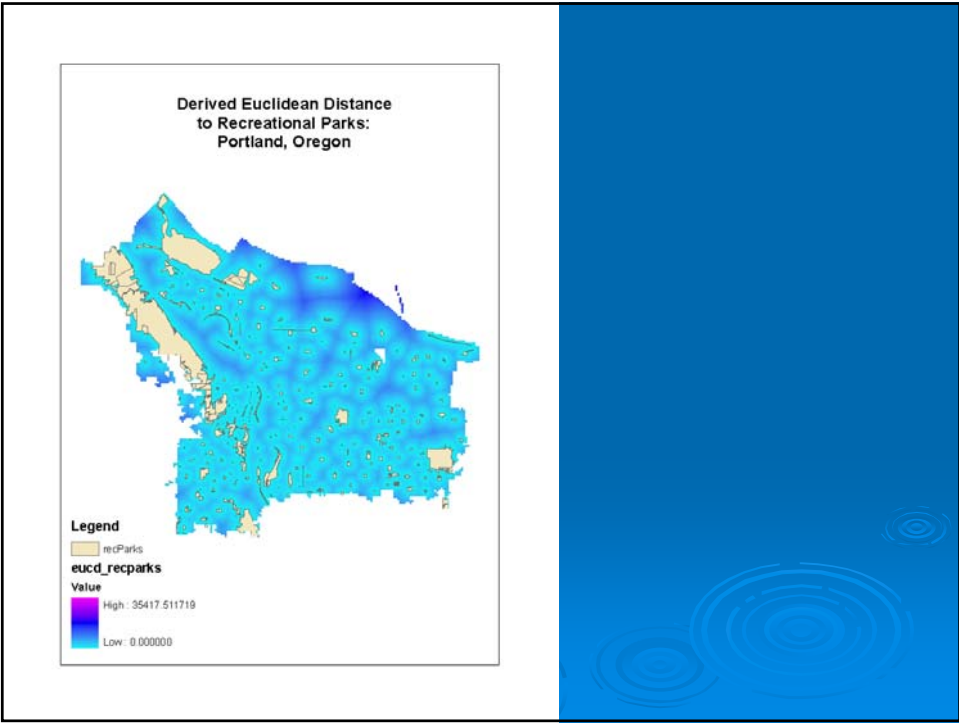


Derived Euclidean Distance
to Current Community Gardens:
Portland, Oregon

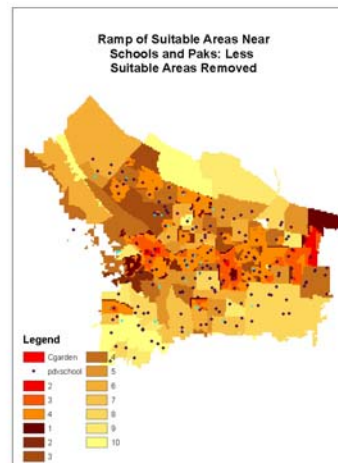
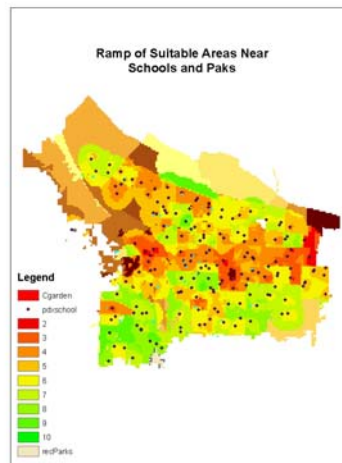


Legend
eucd_cgard
Value
High: 30000.000000
Low: 0.000000
Cgarden



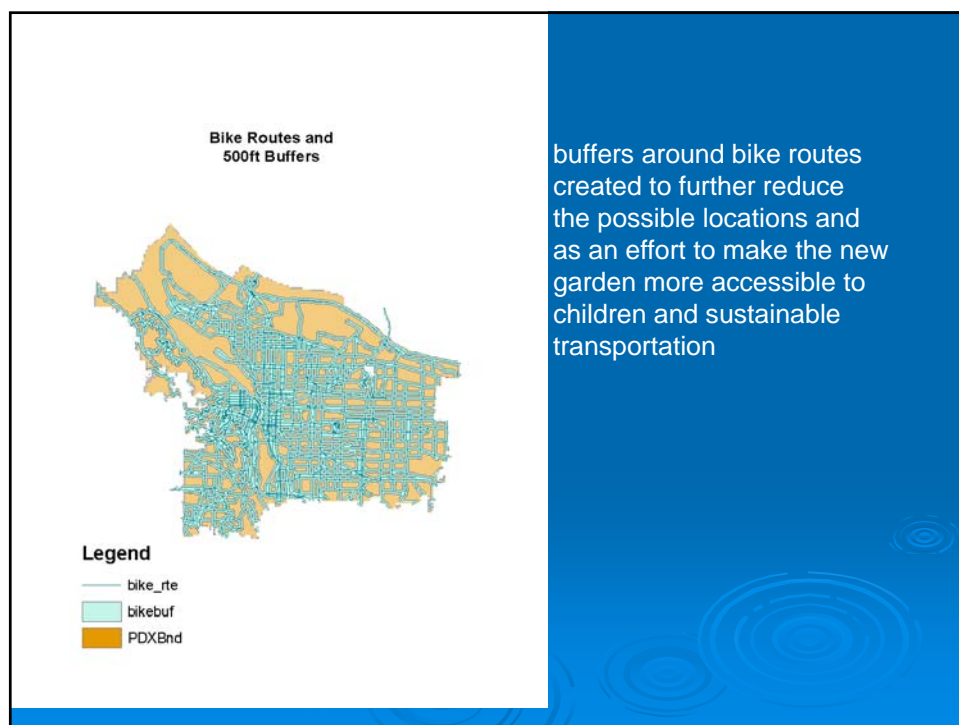
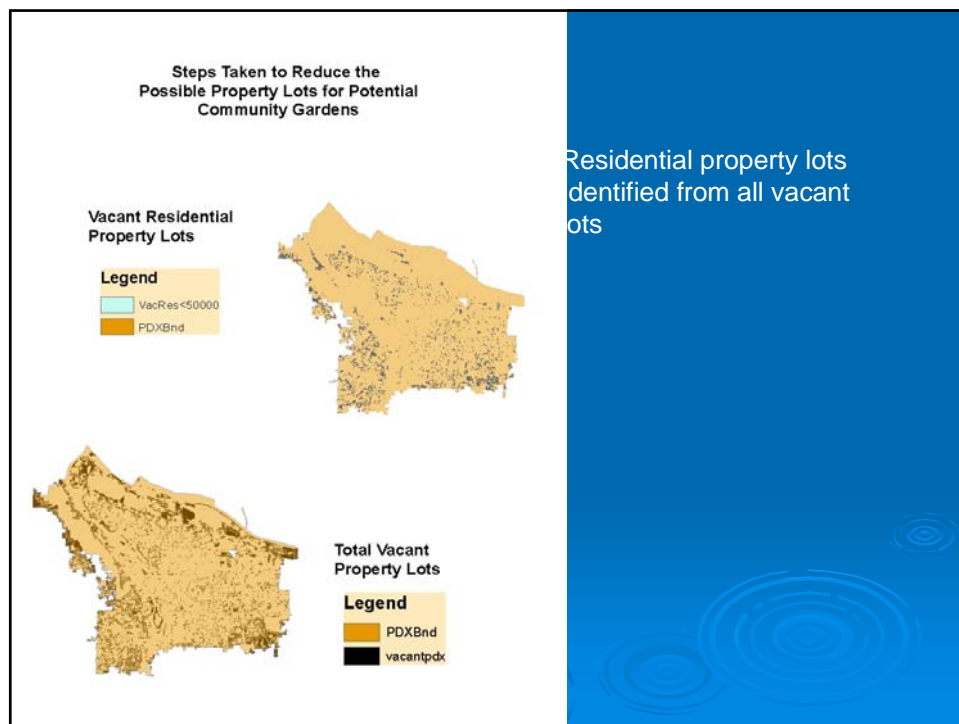


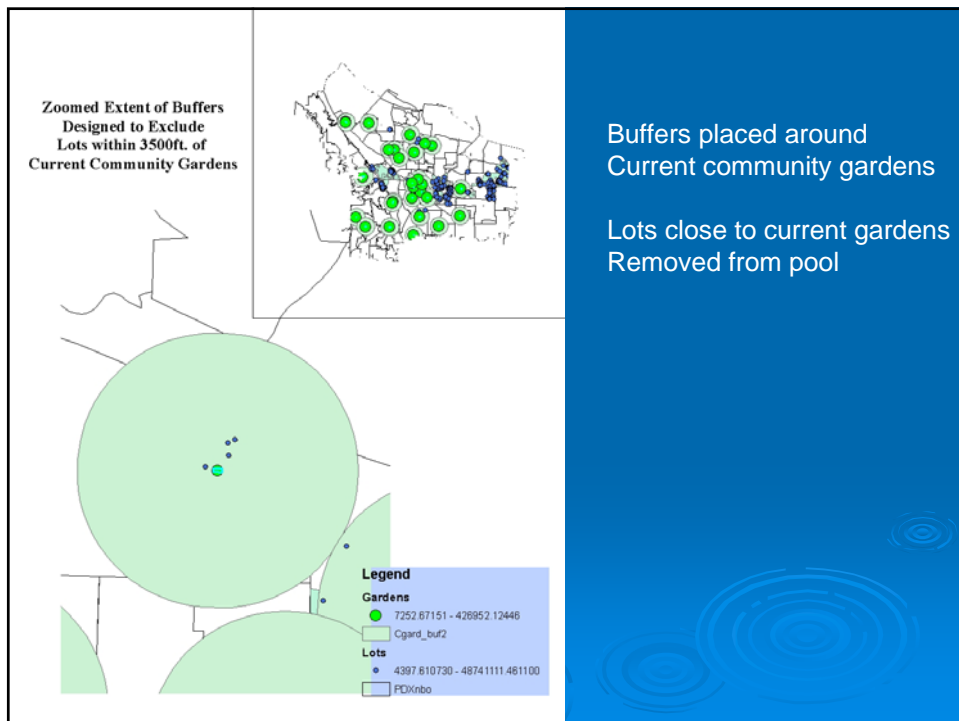
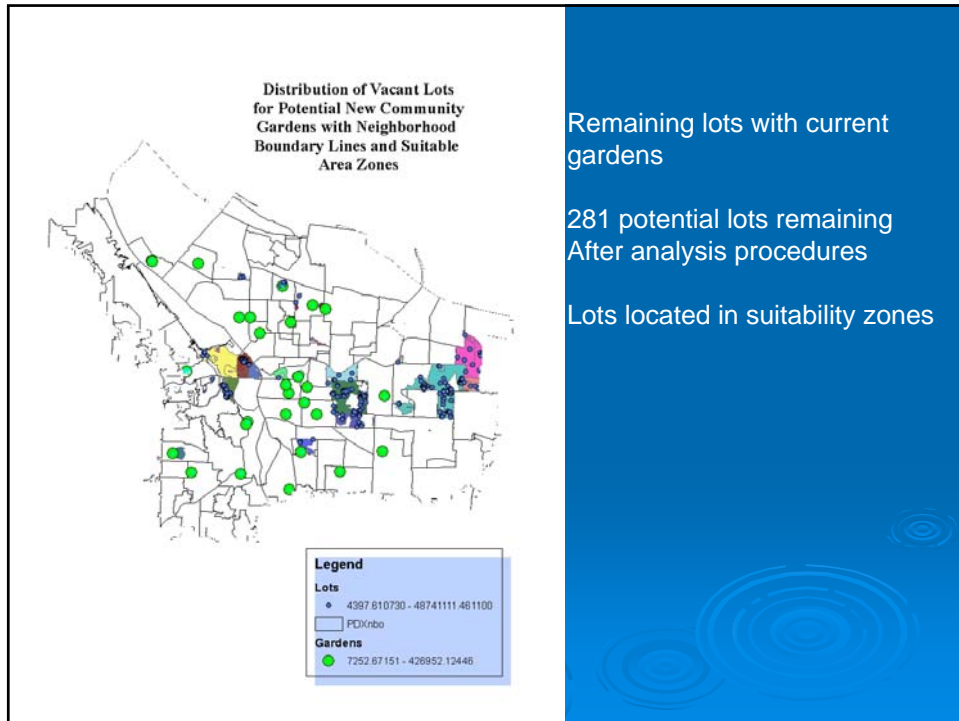
Zones calculated from a weighted overlay then less suitable zones removed for analysis

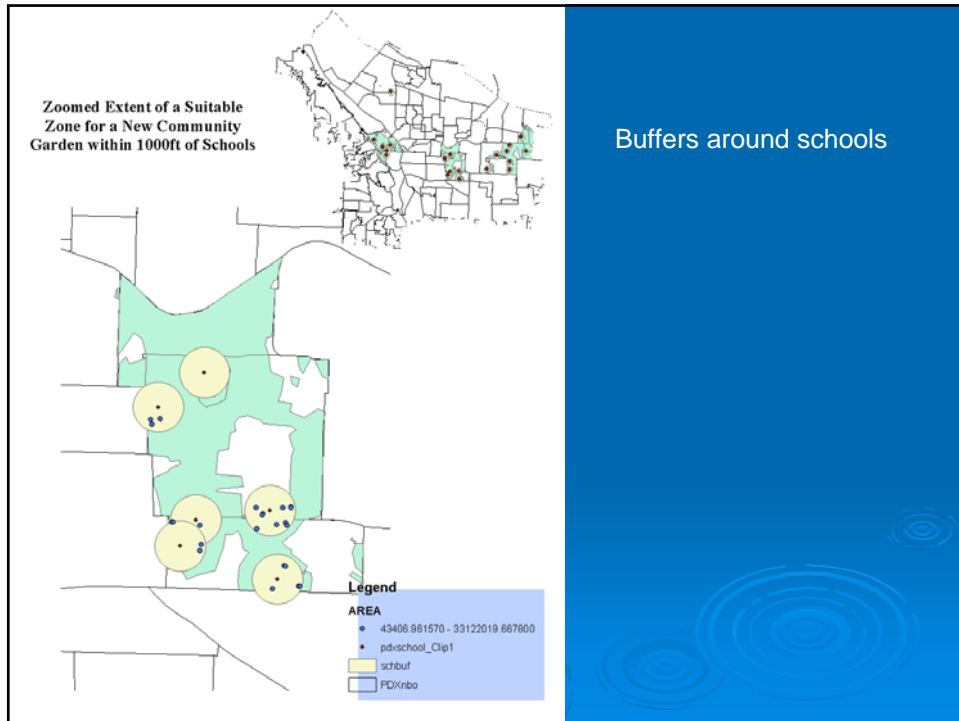


Zones considered high to very high suitability according to analysis procedure

Zones identified with neighborhoods







Results

56 potential vacant property lots within suitability zones

~ 30 neighborhoods identified as containing suitability zones

Conclusions

Analysis procedure limited by subjective nature of the question

Also limited by accuracy of census and tax lot data

Producing a more accurate and reliable analysis would require
Refined methods, more rigorous indexes, and ground truthing
Of tax lots