



Photo: Martha Works

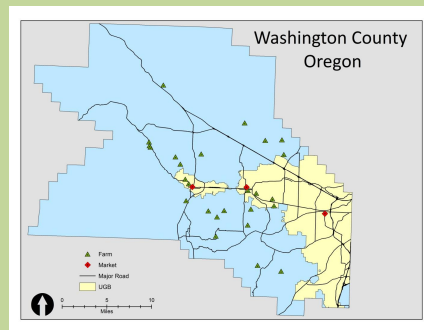
### **Locating a Farmers Market in Washington County**

Joshua Cousins, Josh Mohr, and Tim Houchen  
March 11, 2010

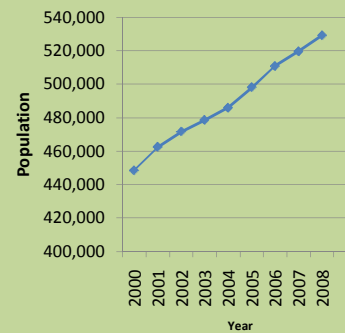
## **Research Question**

- What is the best site for a new farmers market in Washington County?

## Study Area



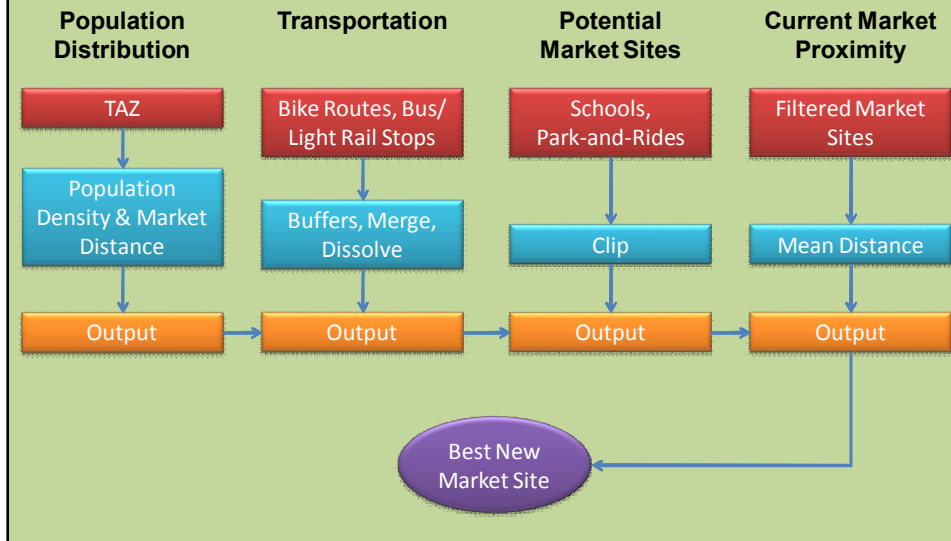
**Washington County Population**



## Information Needed

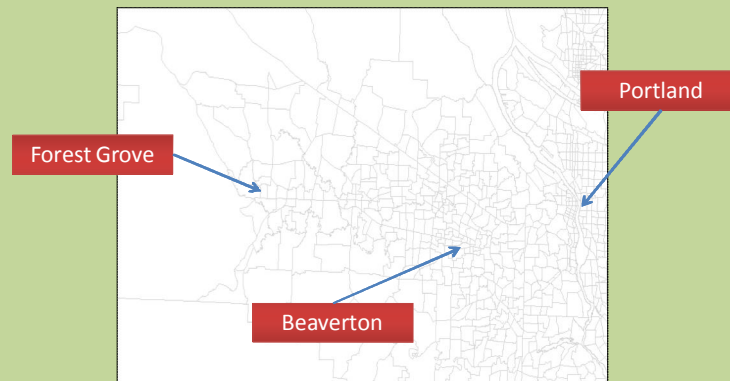
Population Numbers	TAZ
Farms	Portland CSA Coalitions, Farmers Market Websites
Farmers Markets	Market Websites
Accessibility	RLIS
Candidate Sites	RLIS

## Methods



## Population Distribution

- Transportation Analysis Zones (TAZ)
- Why TAZ?



## Population Distribution Issue

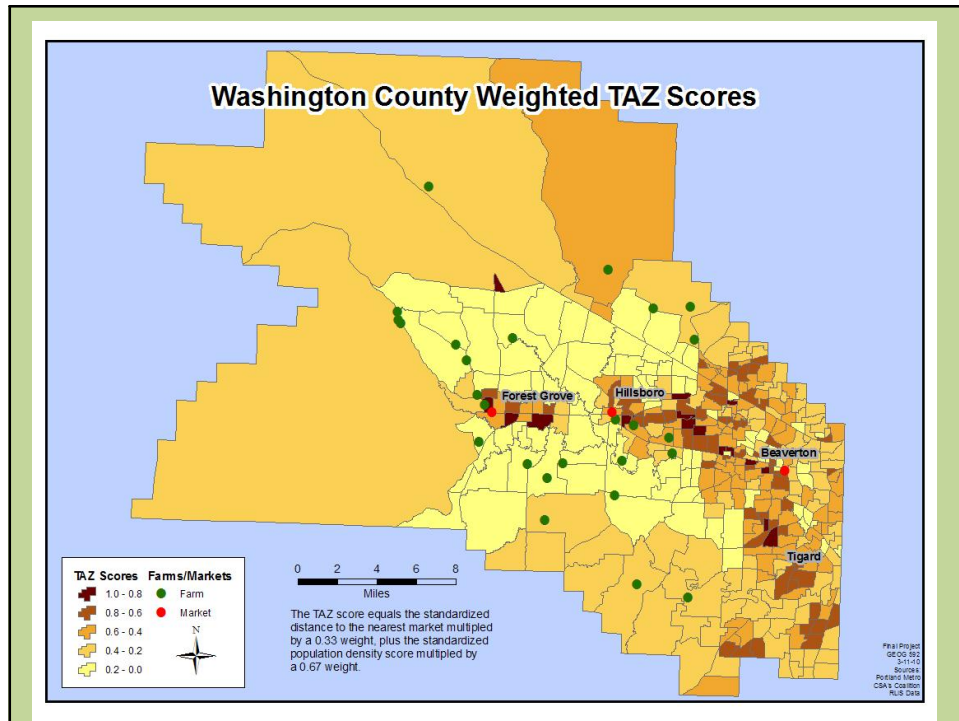
- TAZ Would NOT Rasterize  
AAAGGGHHHHH!!!!!!



## Population Distribution Issue Plan “B”

- Step 1
  - Centroids
- Step 2
  - Near
  - Split 3 Sections
- Step 3
  - Formula (Each Section Separate)

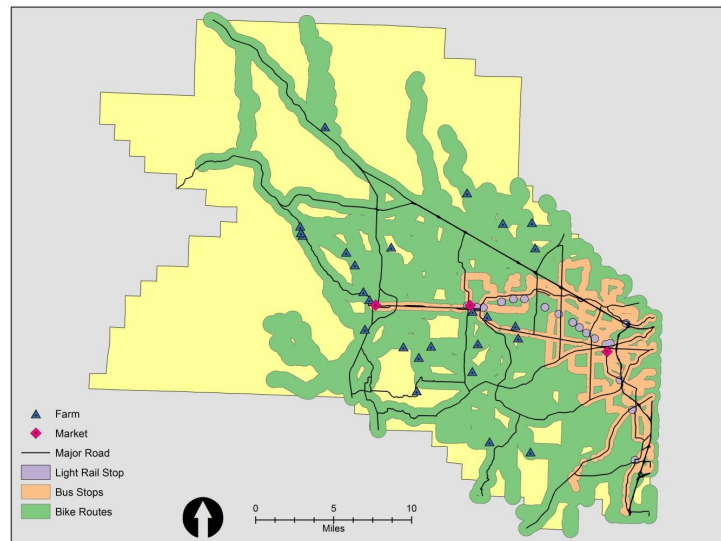
$$\text{TAZ Score} = (\text{Each TAZ Population Density/Overall Density}) * 0.67 + (\text{Each TAZ Distance/Overall Distance}) * 0.33$$



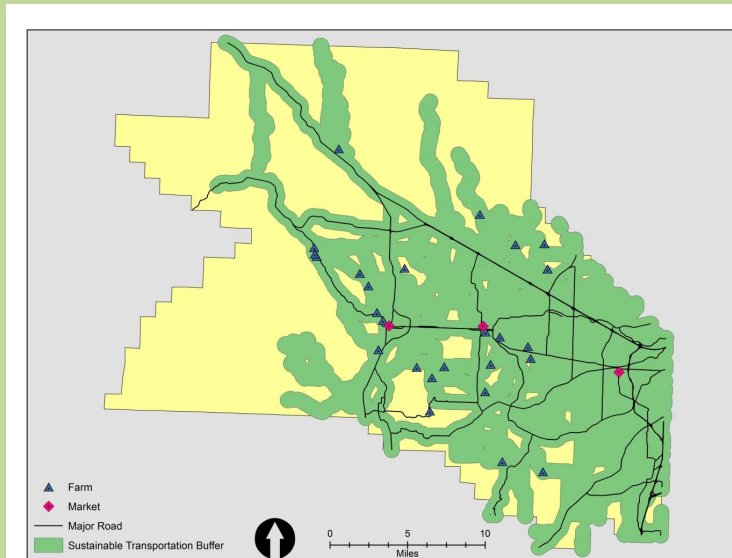
## Transportation: Why sustainable transportation?

- Equal access: Not everyone owns a vehicle and many depend on alternative forms of transportation such as bike and bus.
- Helps increase the sustainability of local food by reducing the amount of car traffic to and from the market.

## Transportation Buffers



## Transportation Merged

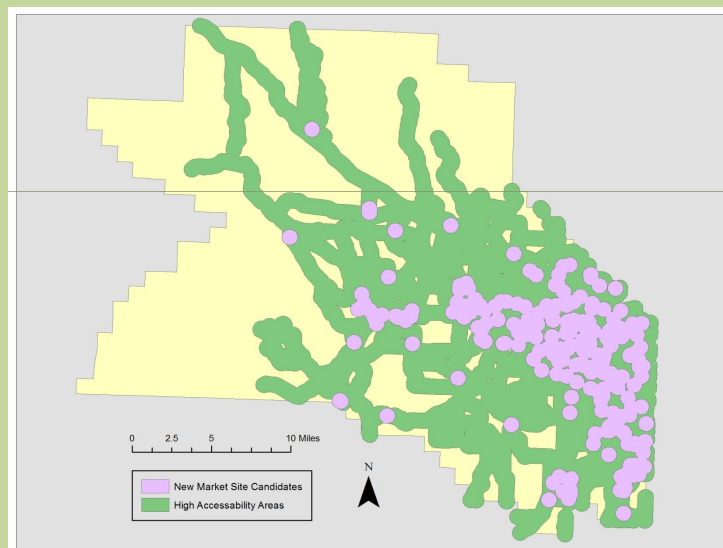


## Candidate Market Sites

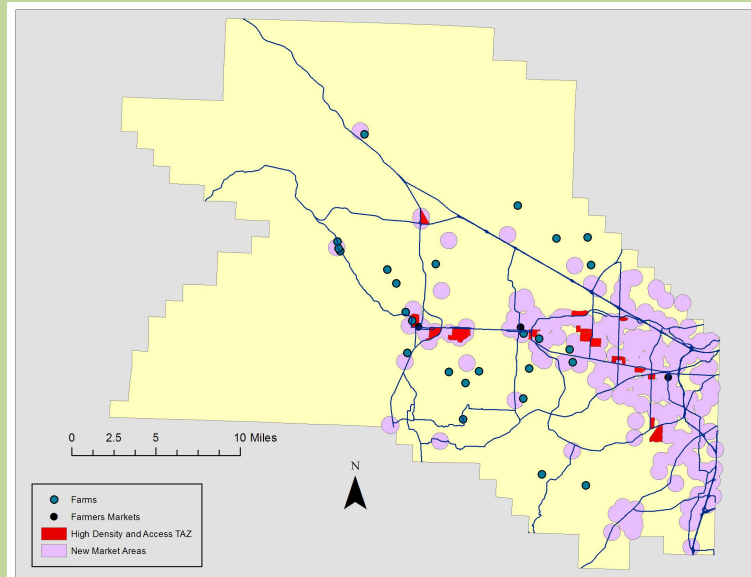
Criteria: Unserved populations; broadly accessible; adequate market space; not conflict with current markets

- Schools and Park and Rides
- Parks? No, inadequate data
- Outside 3 mile radius of current markets
- Near bike route corridors and transit stops

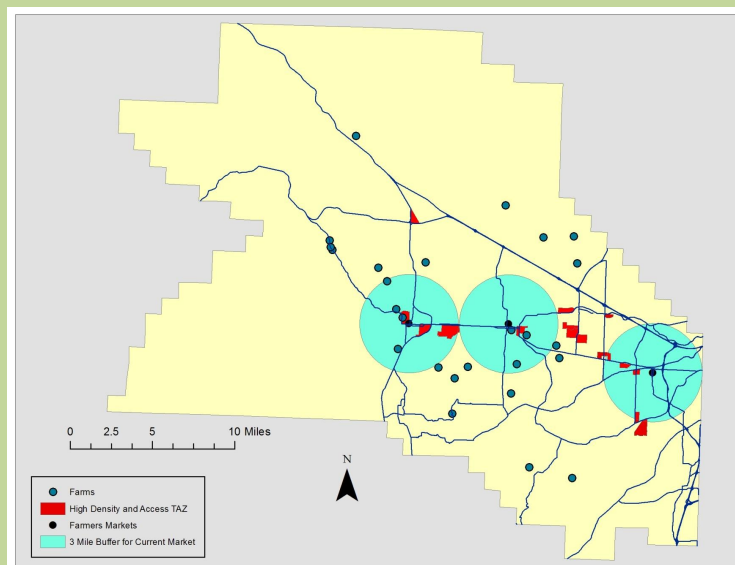
## Buffered Candidate Sites With Transportation Access Corridors



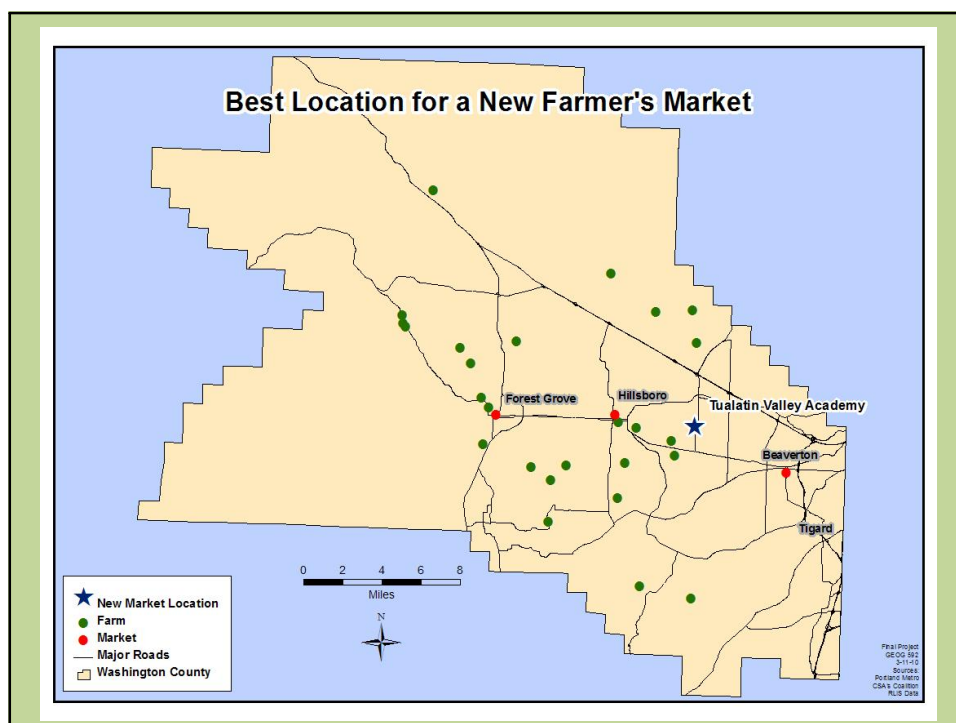
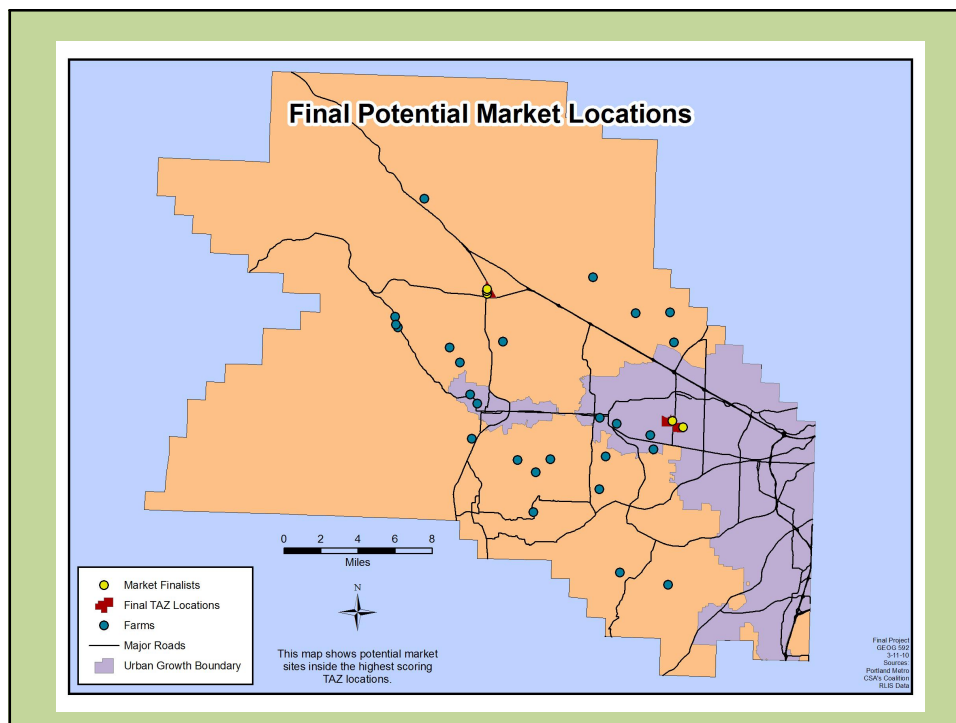
## Highest Scoring TAZ with Potential Market Buffers



## Highest Scoring TAZ with Existing Market Buffers







## Final Thoughts

- Raster Conversion Issues
- TAZ Density and Distance Weighting
  - 0.67 and 0.33, Other Options?
- Other market sites (Parks, Shopping Malls, Non-Paved Areas?)

## Sources

- Portland Metro  
<http://www.oregonmetro.gov/index.cfm/go/by.web/id=24876/level=1>
- RLIS Data at Portland State University
- Beaverton, Hillsboro, and Forest Grove Farmers' Markets
- Portland CSA Coalition



Questions?