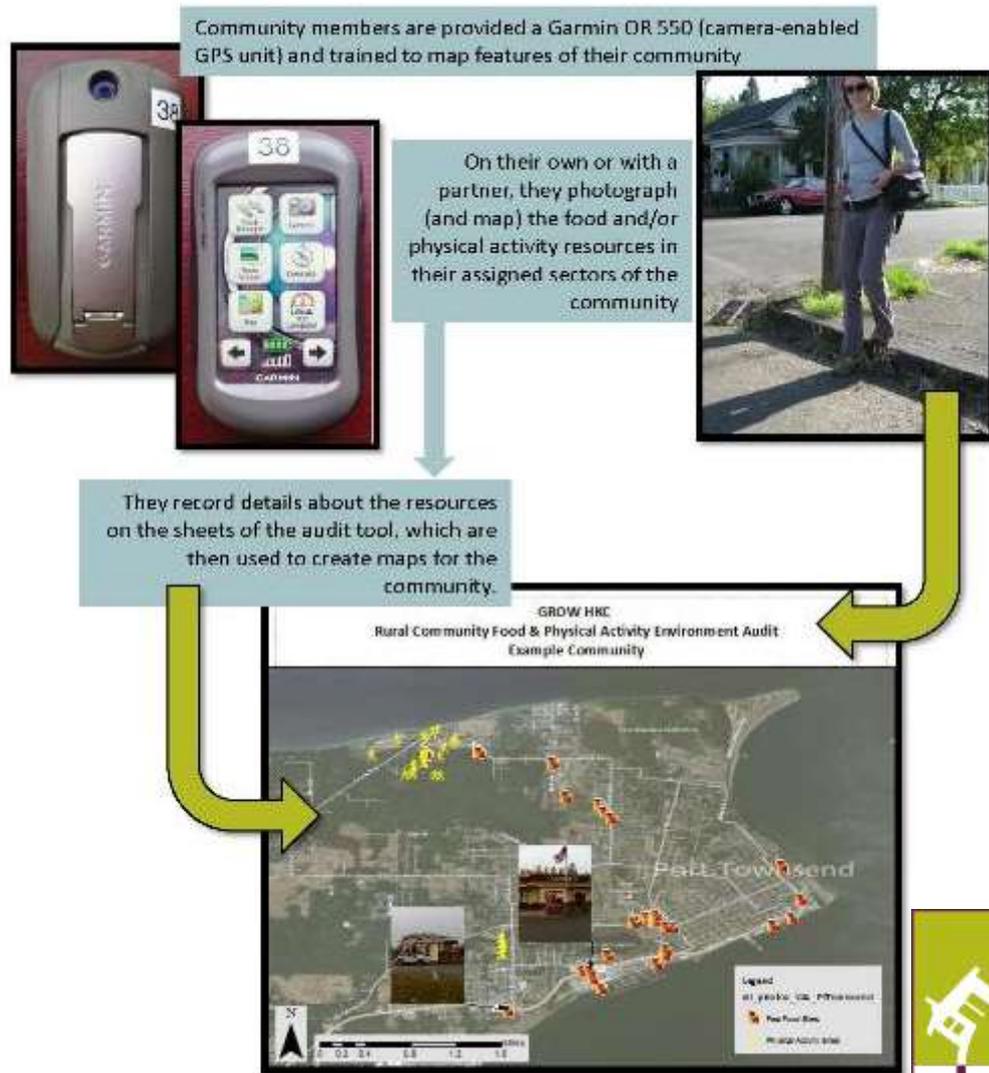


Rural Community Food and Physical Activity Environment

Estacada Audit Results Maps 2013



The information contained in this report can be used to drive decisions about land use and siting for new resources, to secure funding to improve the community food system, parks and recreation resources, and transportation planning. It can also be used by community members to seek out locally available and affordable, healthy food and physical activity options.

GROW Healthy Kids & Communities Background Information

GROW HKC partners with rural people, organizations, and communities to generate local options to support weight healthy lifestyles – healthy eating and physical activity every day - for all children and families.

GROW engages people in the communities we serve in assessing the conditions that most affect them where they live, learn, work and play. We do this to identify what changes will best support weight healthy behaviors for children and families and improve food and physical activity resources in the community.

HEAL MAPPS, one of the GROW programs, helped residents to tell their story of life in the community, their personal experiences or encounters with food and physical activity resources as either supporting or hindering weight healthy choices and habits.

People's lived experiences are very important for understanding how and why healthy habits develop.

In order to have the most complete picture of the food and physical activity environment, we need to know about all of the available resources: who makes food and physical activity available, what types of food and physical activity are available, where are they located, and is there a cost?

The Rural Community Food and Physical Activity Environment Audit is a participatory survey of all of the food and physical activity resources in the community. The auditors use camera-enabled GPS units and photomapping methods to document and survey resource availability and location.

OSU faculty integrate community data with other geographic information systems (GIS) data to provide a visual report of the relationship between the location and types of food and physical activity assets and where most people live in the community.

GPS-Assisted Observational Survey Tool

GROW HKC Community Food Environment Audit

Please use the provided Garmin (GPS) unit, in conjunction with this survey, to map, photograph, and log information about all the food environment and resources in your community. If you do not have access to a Garmin unit, you may use any other GPS mapping device, such as a QStarz or GPS app on your smartphone, along with a camera. For each photograph that you take, please take care not to include people in your photographs.

Specifically, you will map, photograph and log information about all possible food resources in your community. Once you complete the audit of your sector, please check off all of the food resource categories that you encountered in your sector.

- A. Grocery Stores
- B. Convenience Stores
- C. Roadside or Dockside Retailers
- D. Restaurants
- E. Vending Machines (in public spaces)
- F. Food Banks and Food Pantries
 - Food Assistance Programs, including:
 - G. Meals on Wheels
 - H. Gleaners
 - I. Free Meal Sites
 - J. Summer Meal Service Programs
- K. Farm Stands / U-Pick Operations
- L. Farmers Markets
- M. Community Gardens
- N. Hunting, Fishing and Foraging Supports
- O. Home-Based Food Retailers
- P. Other Community Food Resources

A. Grocery Stores

Name of Store: _____

A *grocery store* is a retailer where people buy most of their food for meals and snacks.

Photographs and Logs: Please photograph and log (with the Garmin unit) each grocery store you come across in your sector.

Take a photo of the front of the grocery store. Take a single photo, if you can capture the entire store and the sign with the store's name in a single shot. If you need to take more than one photo to capture the entire store and the sign, take the shot looking straight ahead, and as needed, 1-2 shot(s) looking to the left and to the right. Record your photo code(s), below.

- looking straight ahead DSC _____ .JPG
- looking to the left (as needed) DSC _____ .JPG
- looking to the right (as needed) DSC _____ .JPG

Take additional photographs that describe the access to this store. Examples of photographs to take are listed below. For each feature that is present, please take no more than one photo.

- Bike rack at the store DSC _____ .JPG
- Bus stop adjacent to the store DSC _____ .JPG
- Parking at the store. Also, note the type of parking, below. DSC _____ .JPG
 - Streetside
 - Parking lot
- Handicapped parking spaces at the store DSC _____ .JPG
- Ramps / curb cuts that promote handicap accessibility DSC _____ .JPG
- Evidence of walking access to the store
 - Sidewalk leading to store DSC _____ .JPG
 - Crosswalks DSC _____ .JPG
- Sign or poster that states the store hours DSC _____ .JPG
- Sign or poster that states that the store takes SNAP, EBT or Oregon Trail DSC _____ .JPG
- Sign or poster that states that the retailer is a WIC-authorized vendor DSC _____ .JPG
- Other access feature (Describe: _____) DSC _____ .JPG

Food Retailer Description: Please categorize this food retailer, by answering the questions below to the best of your knowledge.

Is a membership required to shop in this store (e.g., Bi-Mart, Costco, Sam's Club)?
 Yes No I don't know

Can you purchase products in bulk in this store?

Community Audit activities yield rich attribute data that can be associated with resource photos and tracks. Community members collect this information while mapping by using a survey that integrates two research-based measures: the rural active living assessment and the community food security assessment. OSU researchers included additional items known to be influential in the rural food and physical activity systems, such as hunting, fishing, and foraging supports.

Rurality and Weight Health



Many risk factors have been associated with childhood obesity, including rural residency

- Overweight/obesity prevalence is higher among children living in rural (36%) compared to urban (30%) areas
- Weight health and habits carry over into adulthood
- Rural communities face unique environmental challenges that can impact residents' healthy eating and physical activity lifestyle patterns
- Environmental strategies found to prevent obesity have focused on more urban areas

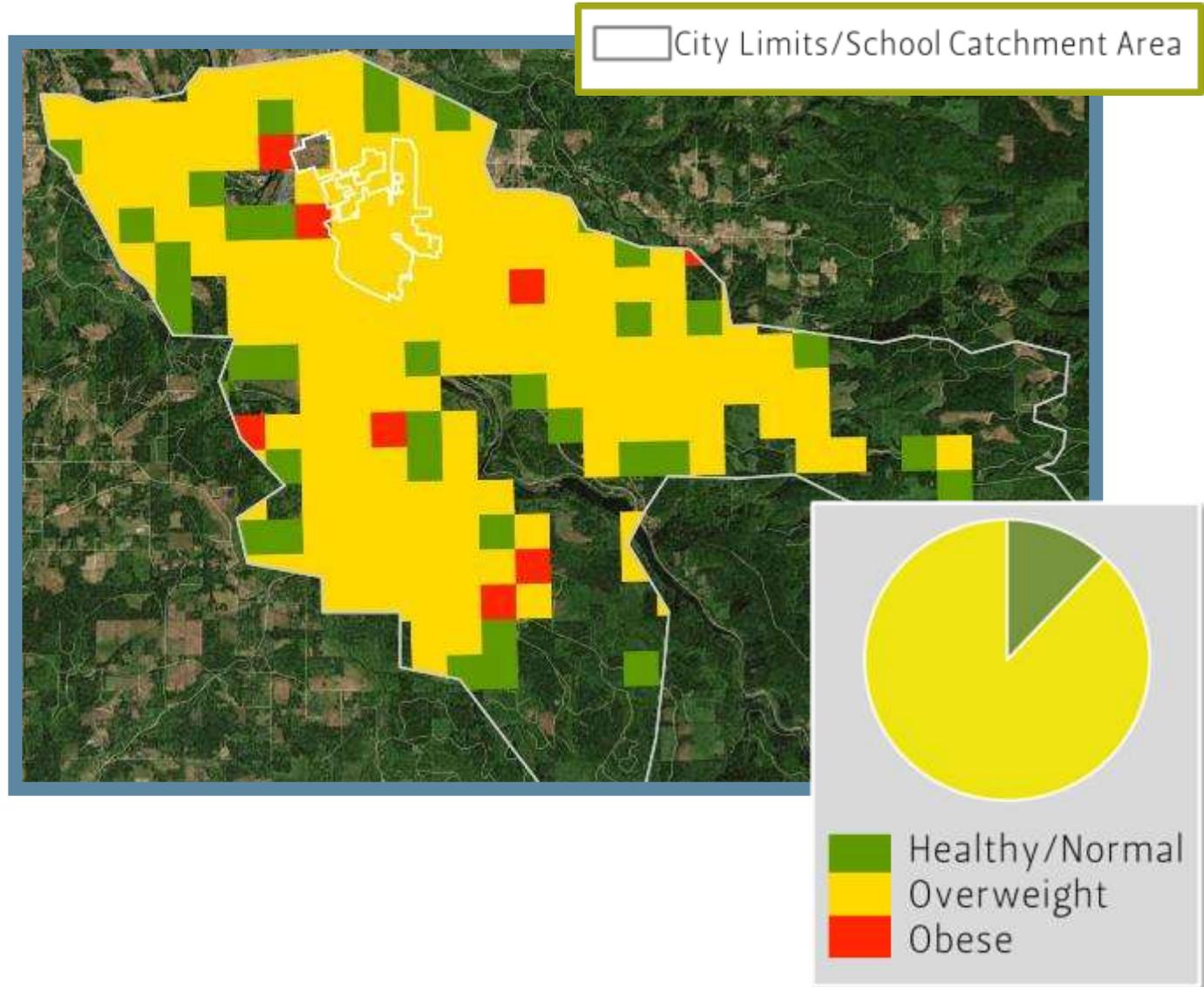
Estacada Community - Adult Weight Health (BMI)

Visualizing weight health in Estacada was enabled by the *Oregon Environmental Public Health Tracking Program

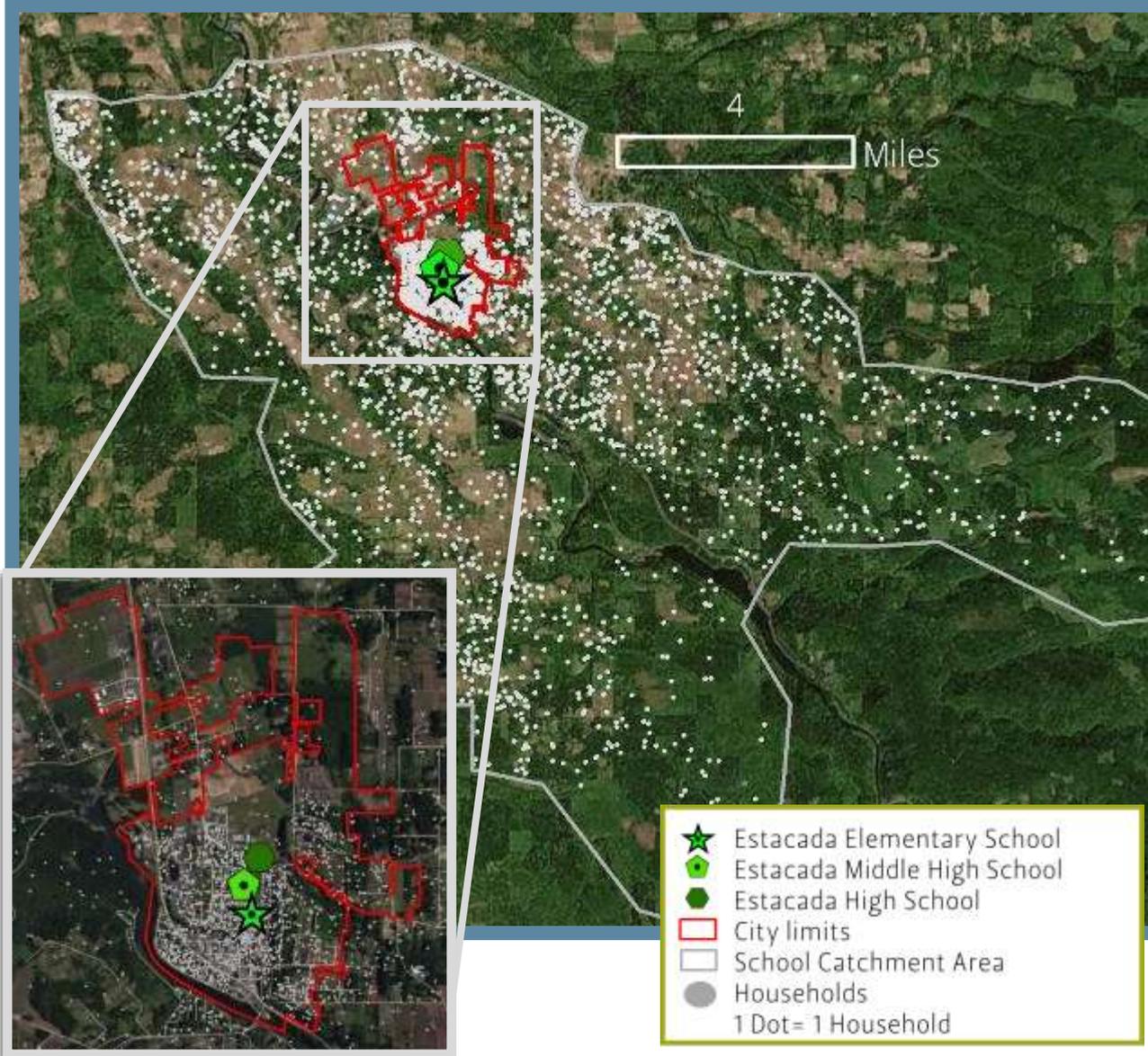
Adult Body Mass Index (BMI)

- 12% Healthy (BMI 18-24.9)
- 88% Overweight (BMI 25-29.9)
- <1% Obese (BMI >30)

*DMV records used to calculate BMI reliably illustrate the BMI distribution despite underestimation



Where people live matters for easy access to resources



Community boundaries include the School District catchment for 3 schools and city limits.

Estacada has 10516 people living in 4246 households (2010 census) spatially dispersed in an area of about 70 sq. mi.

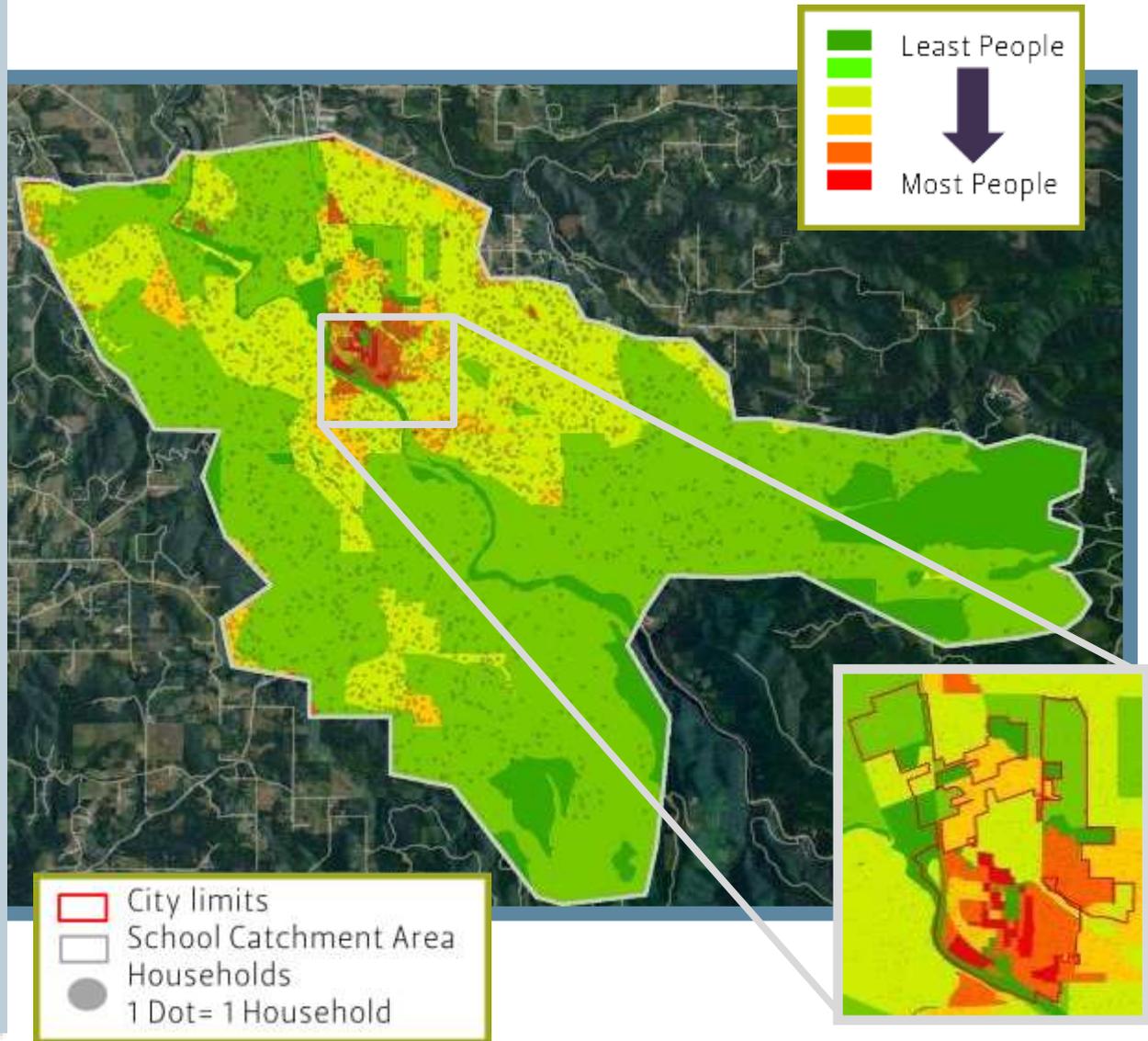
Easy access to locally available resources is determined by proximity, transportation mode, ability to drive, cost & household income, etc. which will vary among families

Using Maps to Show Where Most People Live...

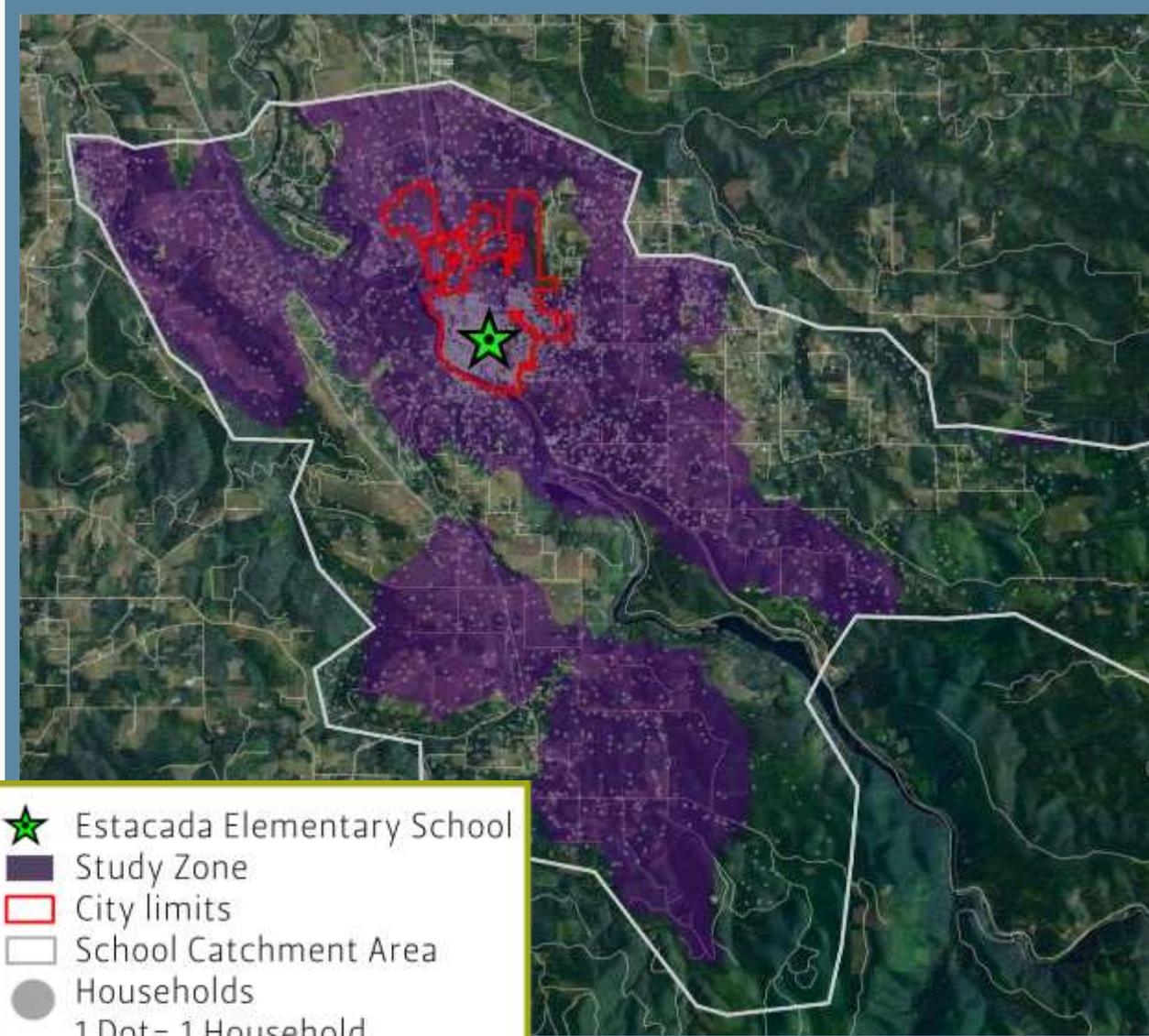
Within audit boundaries, we calculated statistically significant clusters of population based on population density

The geographic centers of these clusters were used to create network buffers, ranging in size from 2 to 5 miles, that captured 85% or more of the community population

The yellow to red areas are the most highly populated; Estacada is sparsely populated (greens) throughout much of the boundary area.



Using Maps to Show Where Most People Live: Study Zone



The most populated areas were used to define the “study zone” to determine the Food and Physical Activity resources relevant to where most people live

The study zone (purple) captures 95% of Estacada’s population

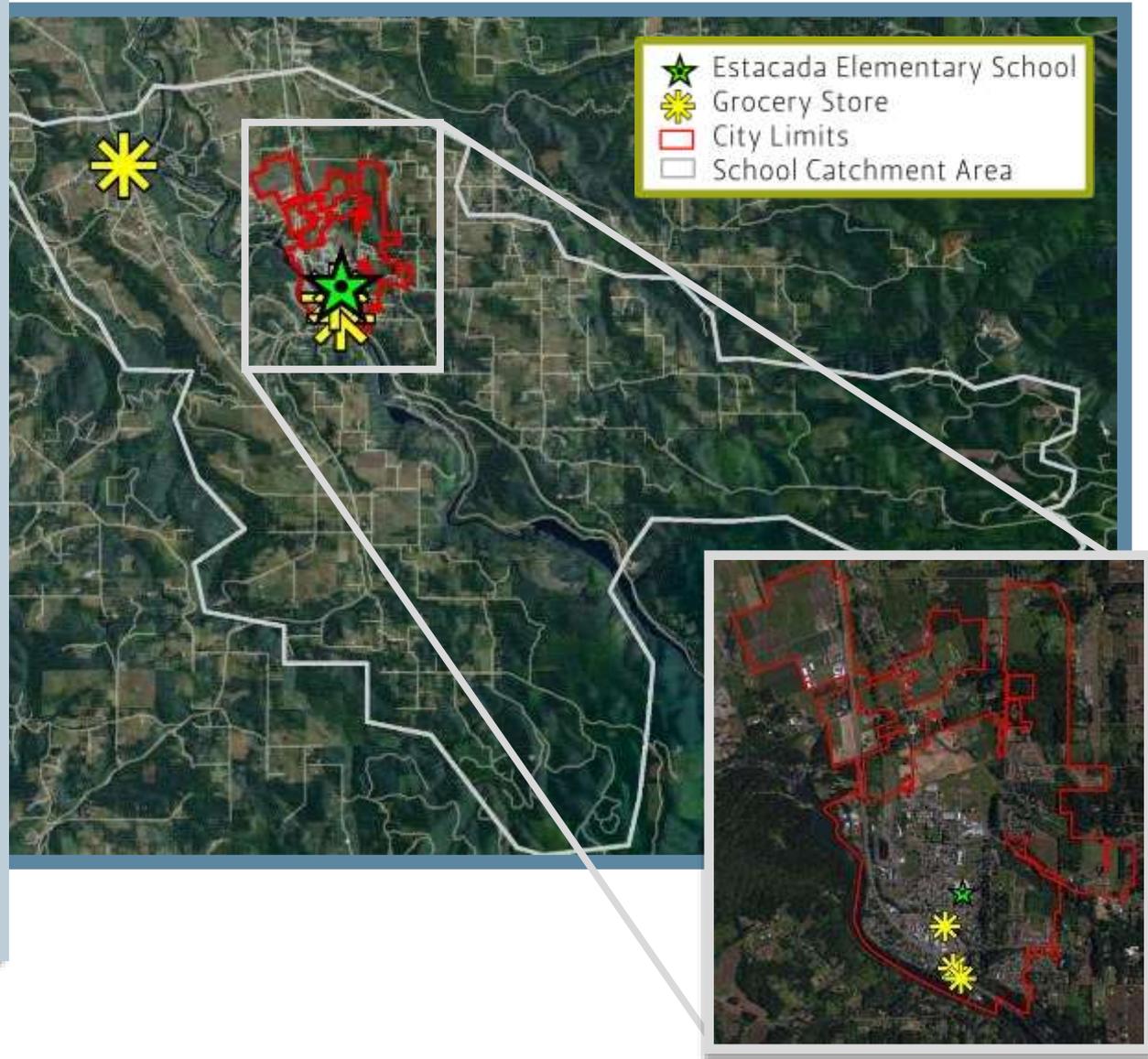
Defining the study zone helped limit time and travel distance for Estacada community members who mapped resources and collected survey data, while not limiting the ability to capture data that is important to the community.

Grocery Store Locations

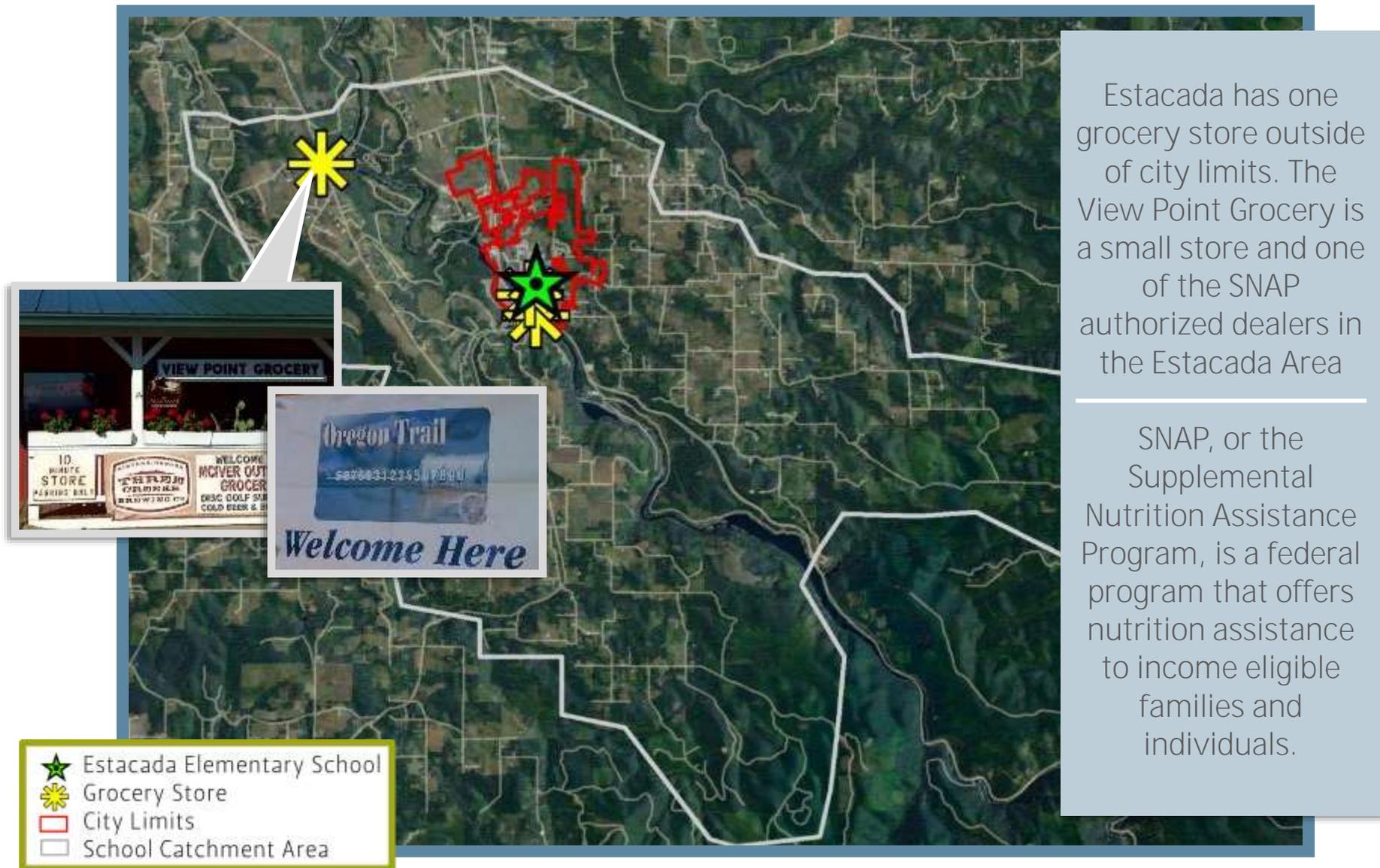
According to the Healthy Food Financing Initiative, a food desert is an area where a larger proportion of people have low or no access to a supermarket or grocery store

Estacada has four grocery stores, three within city limits and one outside. However, Estacada is still considered a partial food desert.

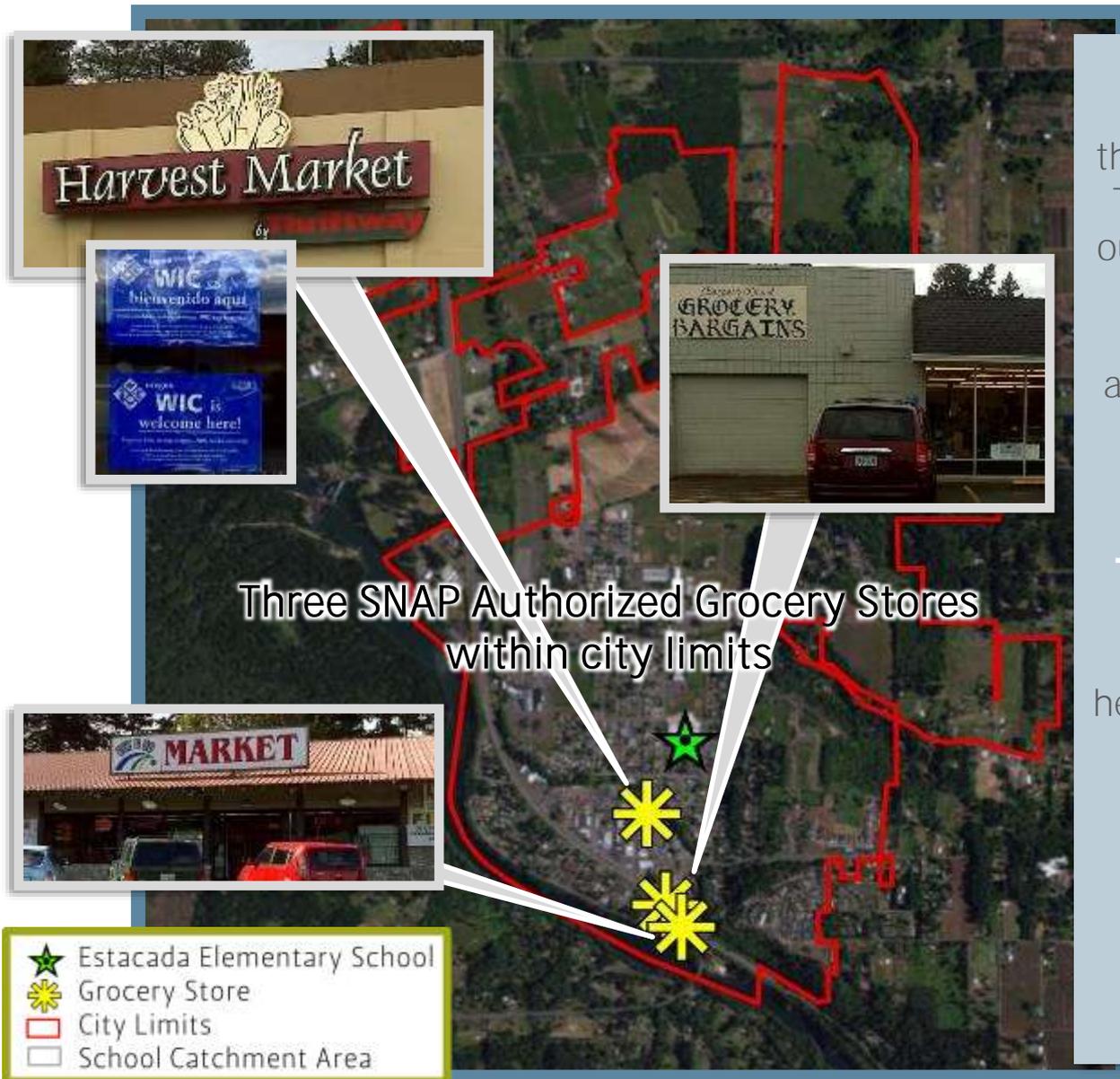
Based on a measure of availability of healthy food options, the “Modified Retail Food Environmental Index,” Estacada scored “12.5” on scale ranging from 0 (no access to healthy food) to 100 (only access to healthy food)



Resources for Groceries Shown by Location



Resources for Groceries Shown by Location



Within city limits Estacada has three grocery stores: a full service Thriftway, a discount or bargain outlet store, and a smaller market style grocery.

All of these grocers are SNAP authorized retailers. Additionally, the Thriftway is also a WIC (Woman Infants and Children) authorized retailers

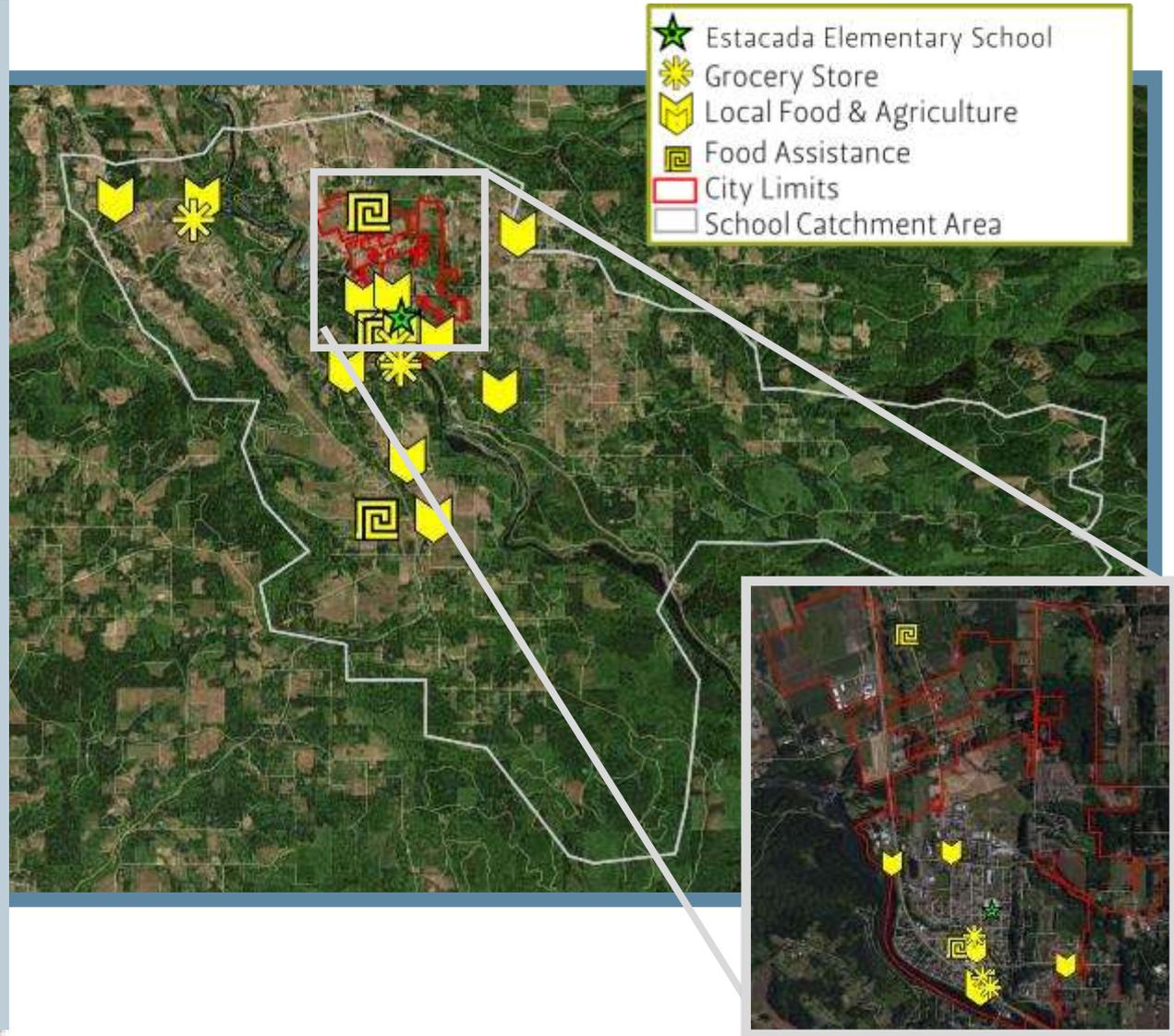
WIC is a SNAP program that provides supplemental foods, health care referrals, and nutrition education for low income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk

Local Food, Agriculture, & Food Assistance

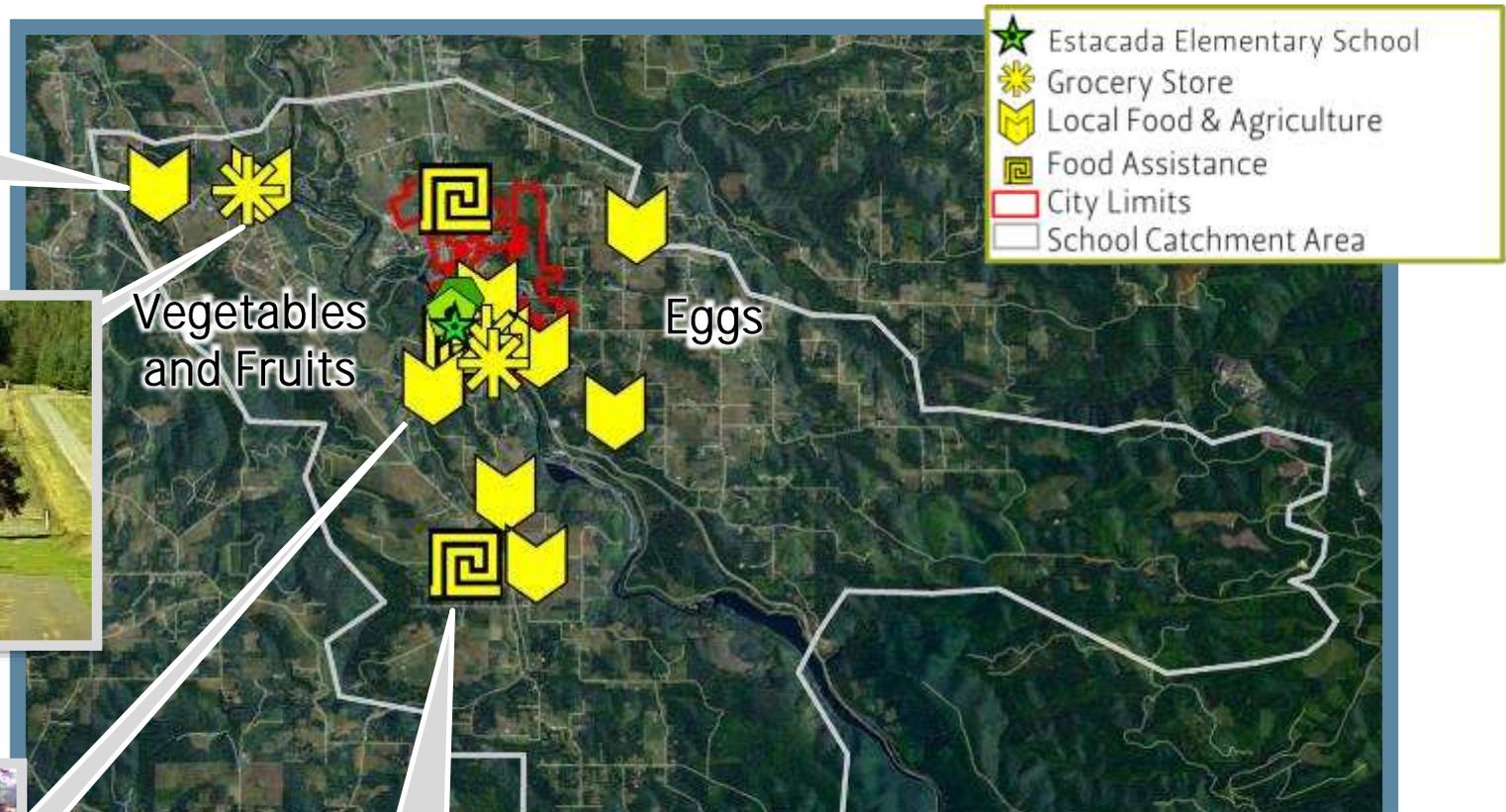
Estacada has a number of “Local Food, Agriculture, and Food Assistance” resources

Local Food and Agriculture includes farm stands, u-picks, home-based food retailers, farmer’s markets, and hunting/fishing/gleaning supports

Food Assistance includes food banks, summer lunch programs, community meals and other supplemental food support programs

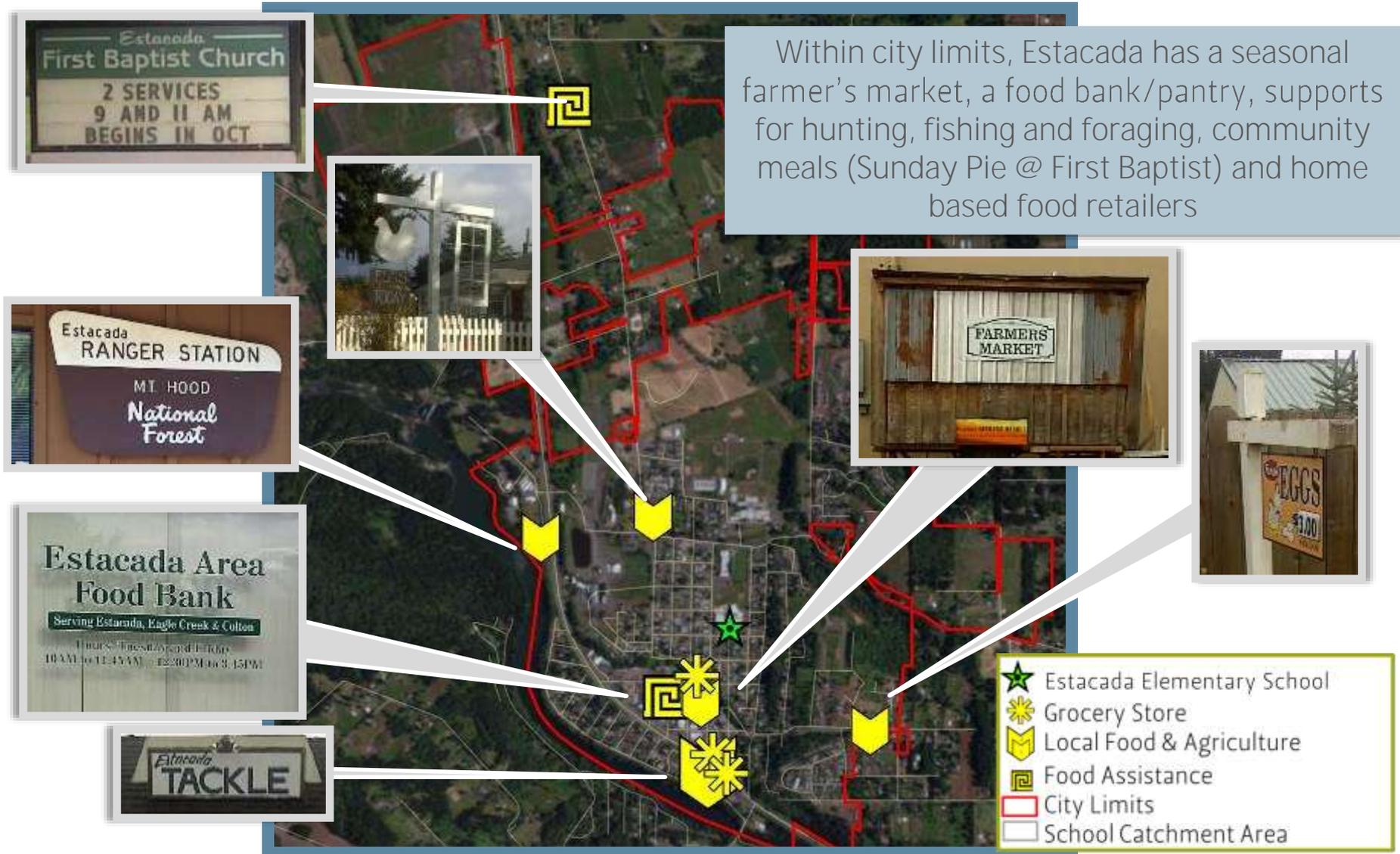


Resources for Local Food, Agriculture & Food Assistance Shown by Location

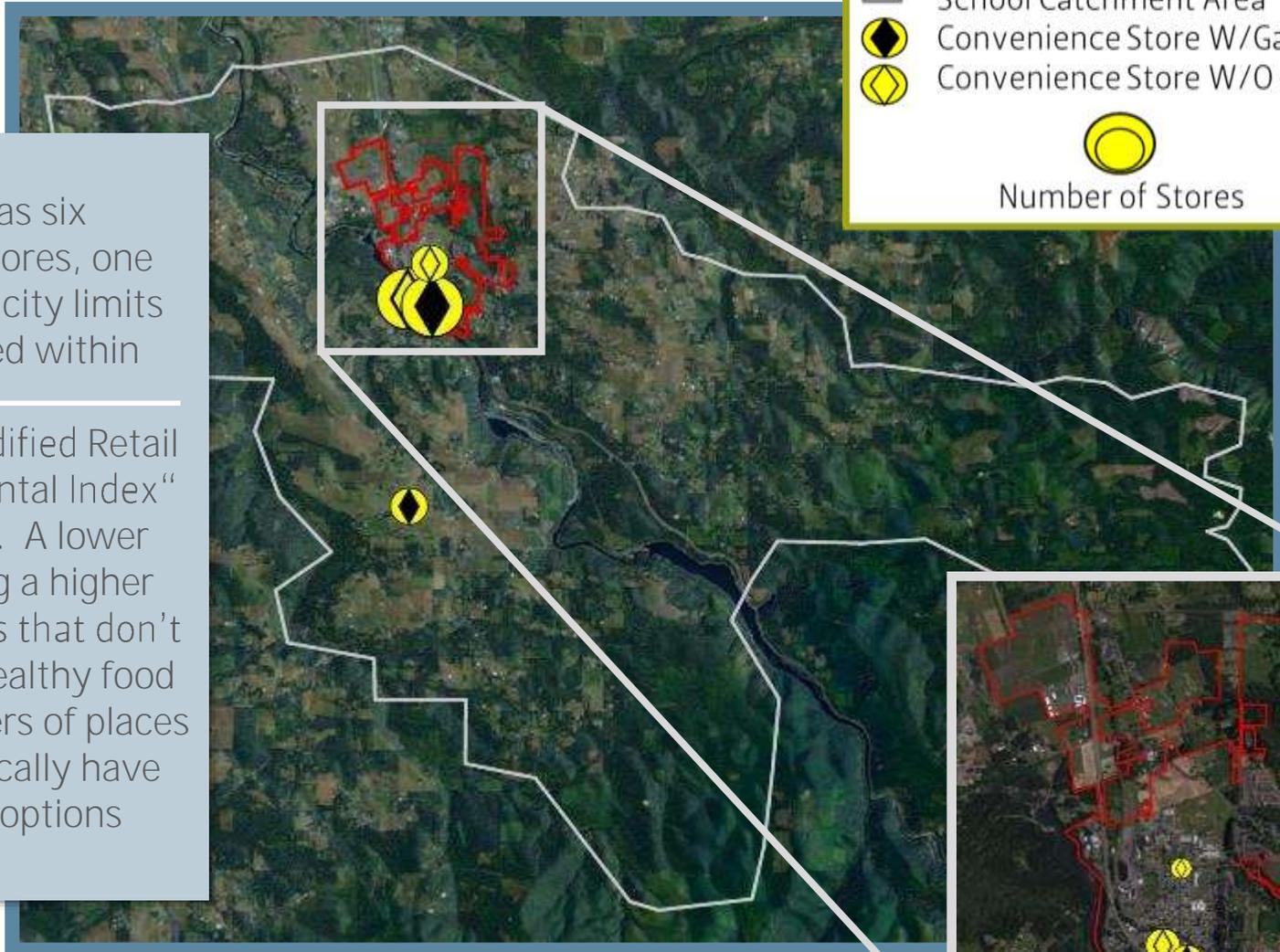


Estacada has eight local food/agriculture and food assistance options that lie outside of city limits including a farm stand/u-pick type operation, as well as a number of home based retailers that offer things like eggs and vegetables for sale. The lone food assistance resource are the community meals (monthly breakfasts) offered at the Springwater Grange.

Resources for Local Food, Agriculture & Food Assistance Shown by Location



Convenience Stores



Estacada has six convenience stores, one located outside city limits and five located within

Estacada's "Modified Retail Food Environmental Index" score was 12.5. A lower score indicating a higher number of places that don't typically have healthy food and lower numbers of places that would typically have healthy food options



Resources for Convenience Stores Shown by Location

- ★ Estacada Elementary
- ▭ City Limits
- ▭ School Catchment Area
- ◊ Convenience Store W/Gas
- ◊ Convenience Store W/O Gas

○
Number of Stores

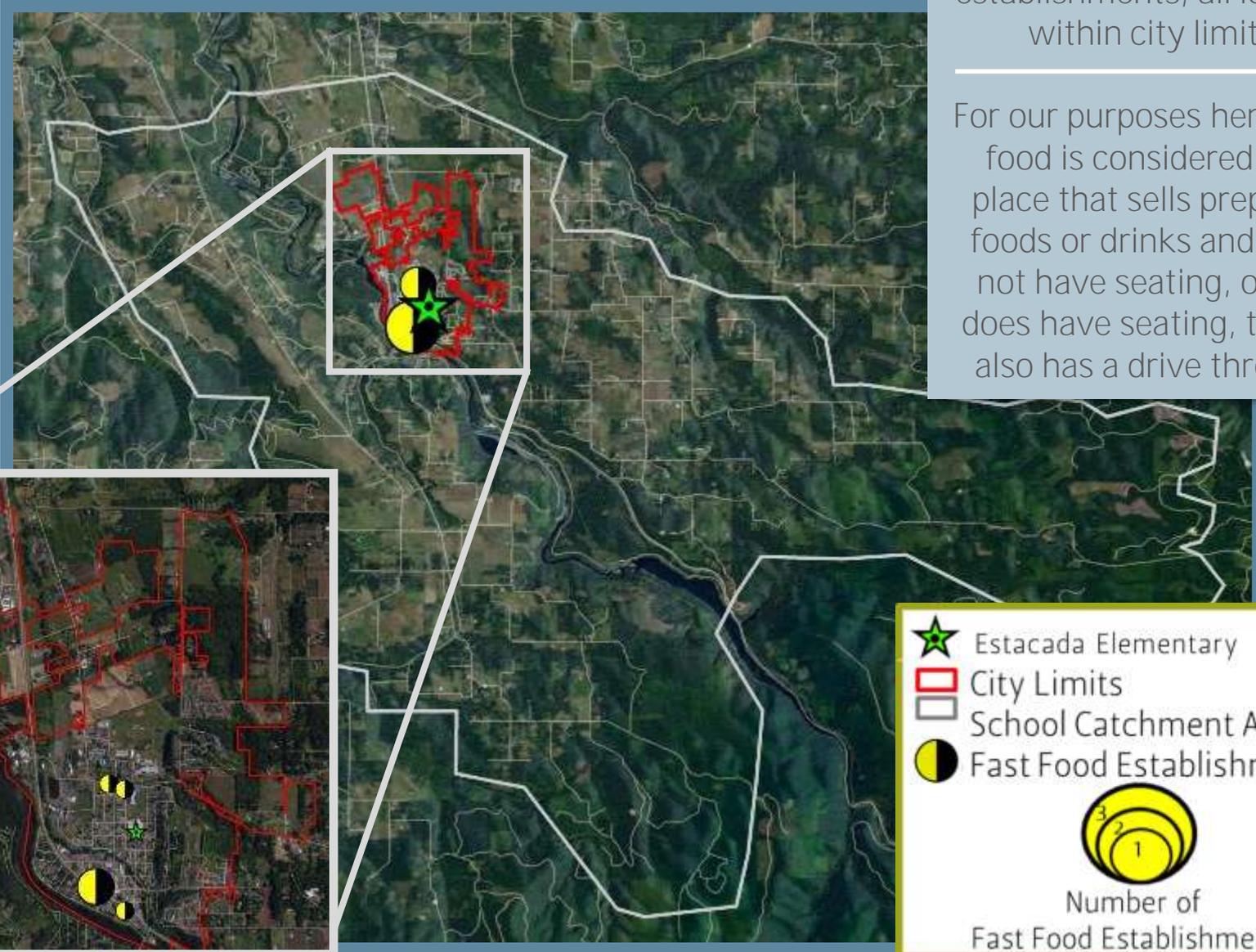


Not shown: Springwater Store located outside city limits

Fast Food

Estacada has six fast food establishments, all located within city limits

For our purposes here, fast food is considered any place that sells prepared foods or drinks and does not have seating, or if it does have seating, then it also has a drive through

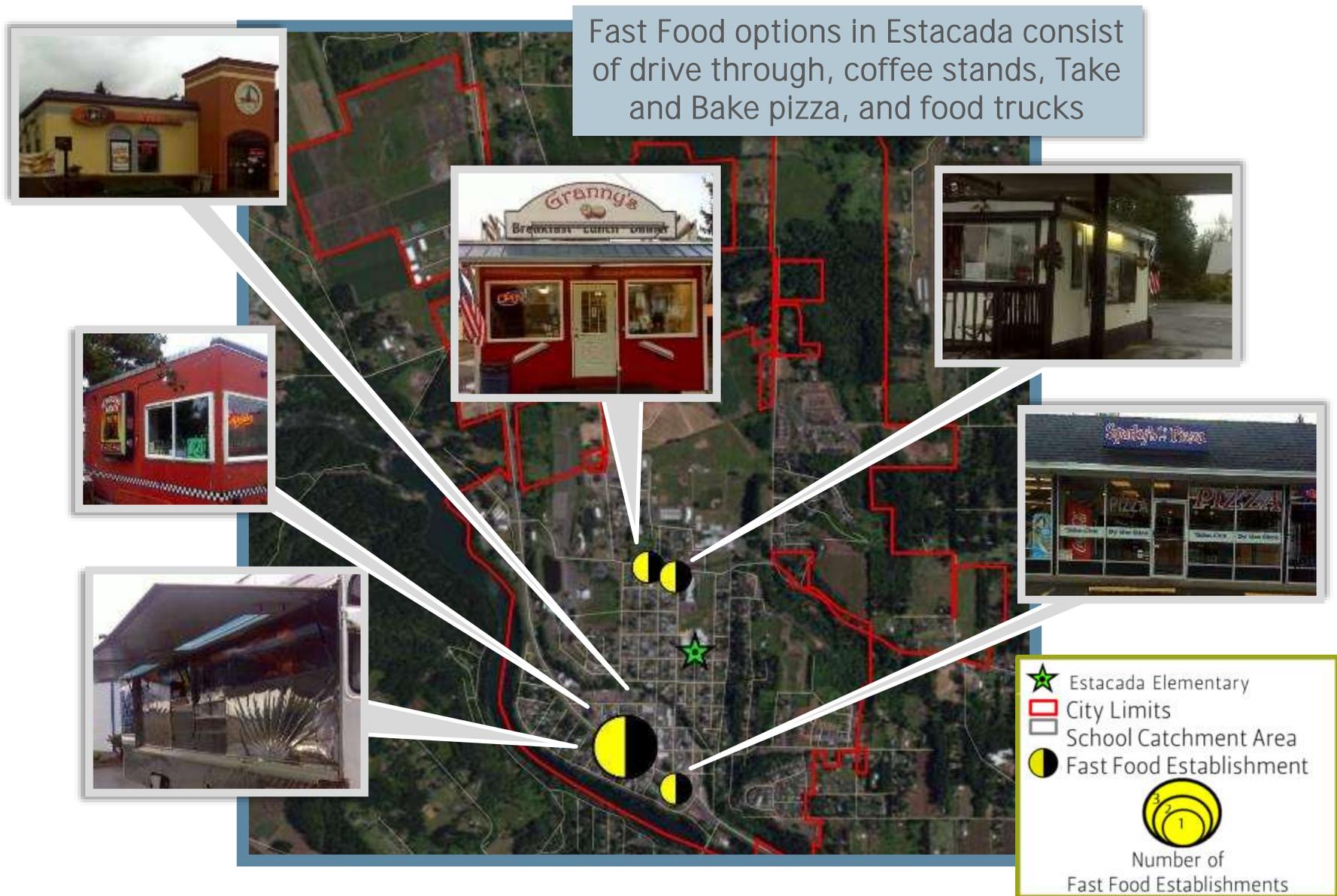


- ★ Estacada Elementary
- ▭ City Limits
- ▭ School Catchment Area
- Fast Food Establishment

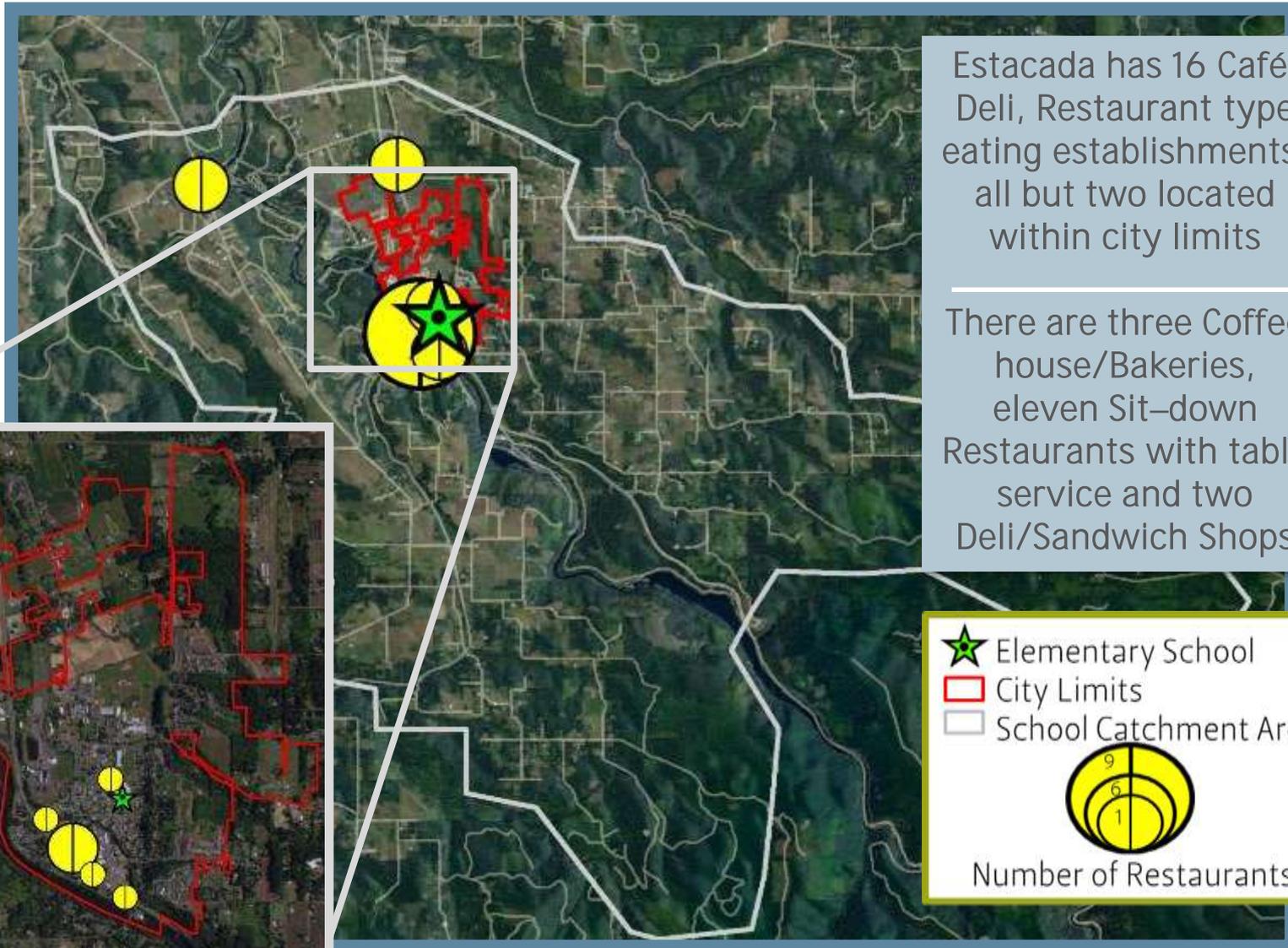


Number of
Fast Food Establishments

Resources for Fast Food Shown by Location



Cafés, Delis, and Restaurants



Resources for Cafés, Delis, & Restaurants Shown by Location

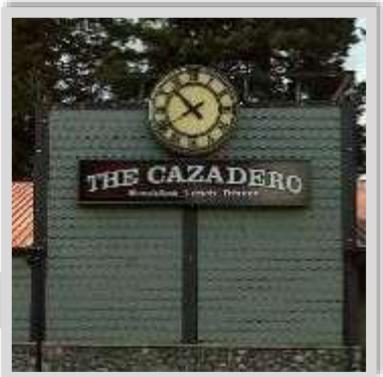


Outside of city limits there are two dining options: a deli/sandwich shop or a sit-down restaurant with wait staff

- ★ Elementary School
- City Limits
- School Catchment Area

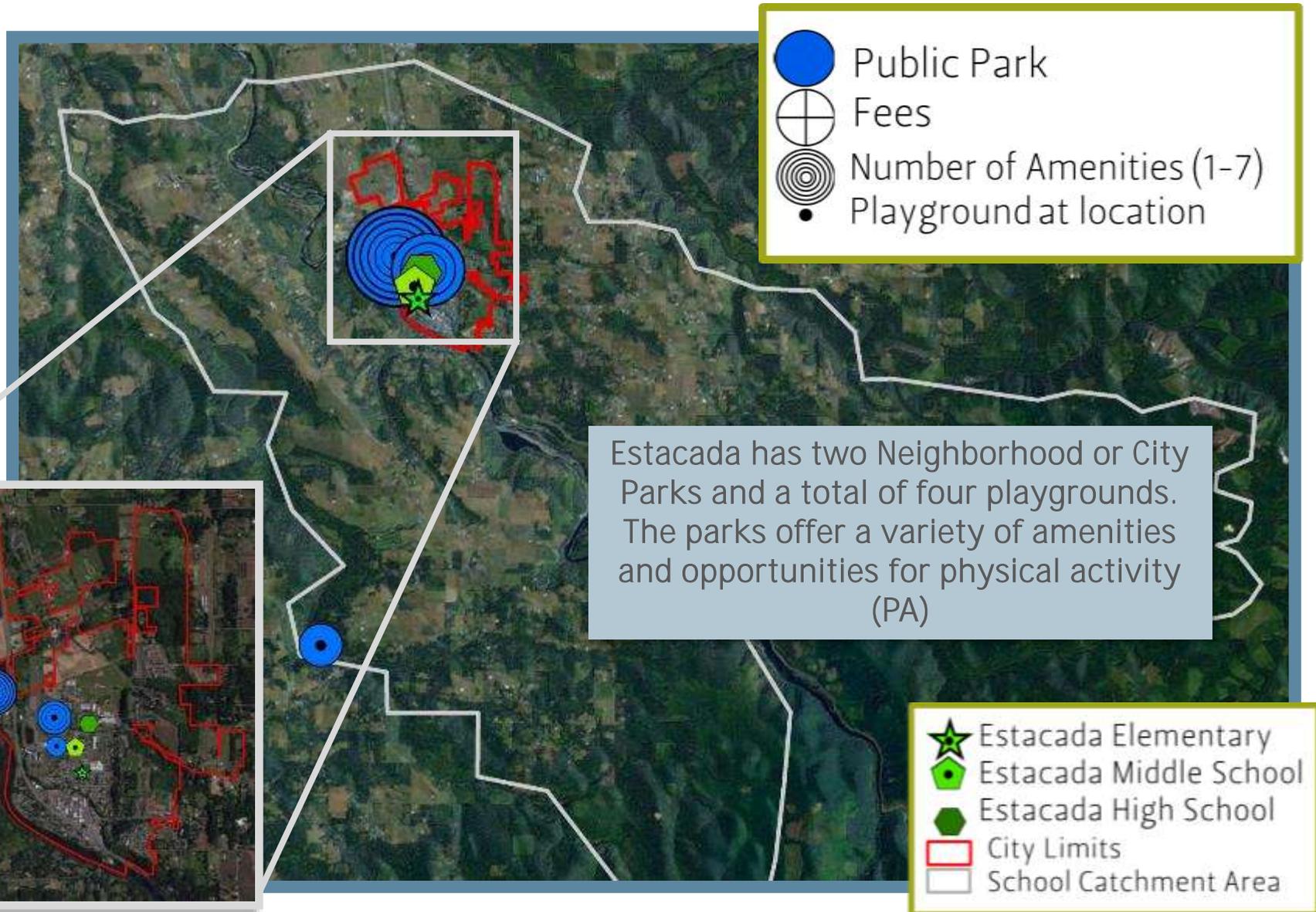
Number of Restaurants

Resources for Cafés, Delis, & Restaurants Shown by Location



Within city limits there are a variety of dining establishments from Cafés to full service Sit-Down restaurants

City/Neighborhood Parks and Playgrounds



Resources and Amenities for Public Parks and Playgrounds Shown by Location

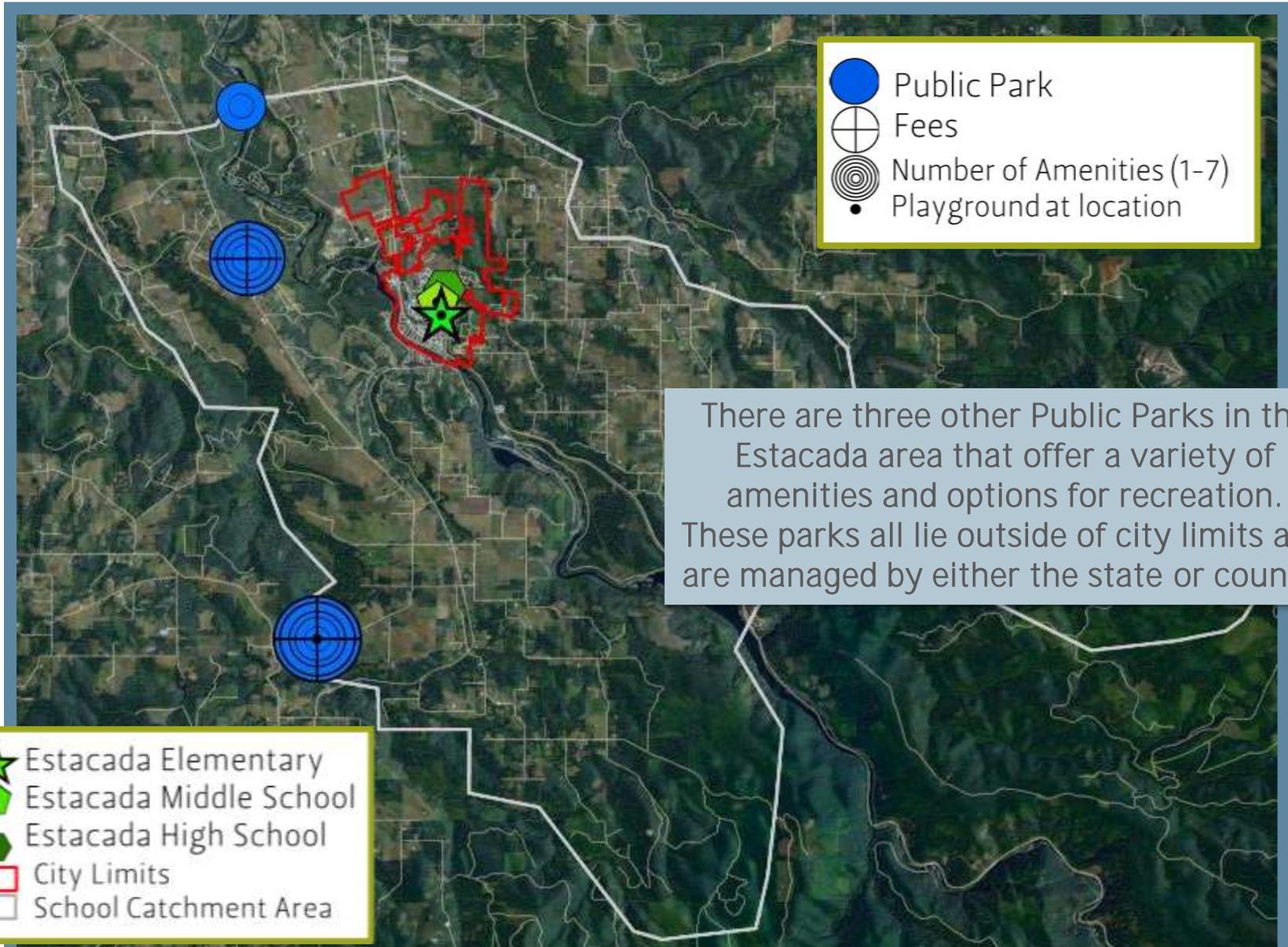


- Public Park
- Fees
- Number of Amenities (1-7)
- Playground at location

There are two City/Neighborhood parks and three playgrounds (not including those at the schools) within Estacada city limits

The parks offer amenities like volleyball courts, baseball and disc golf fields, and beaches/waterways for swimming and fishing

Other Public Parks

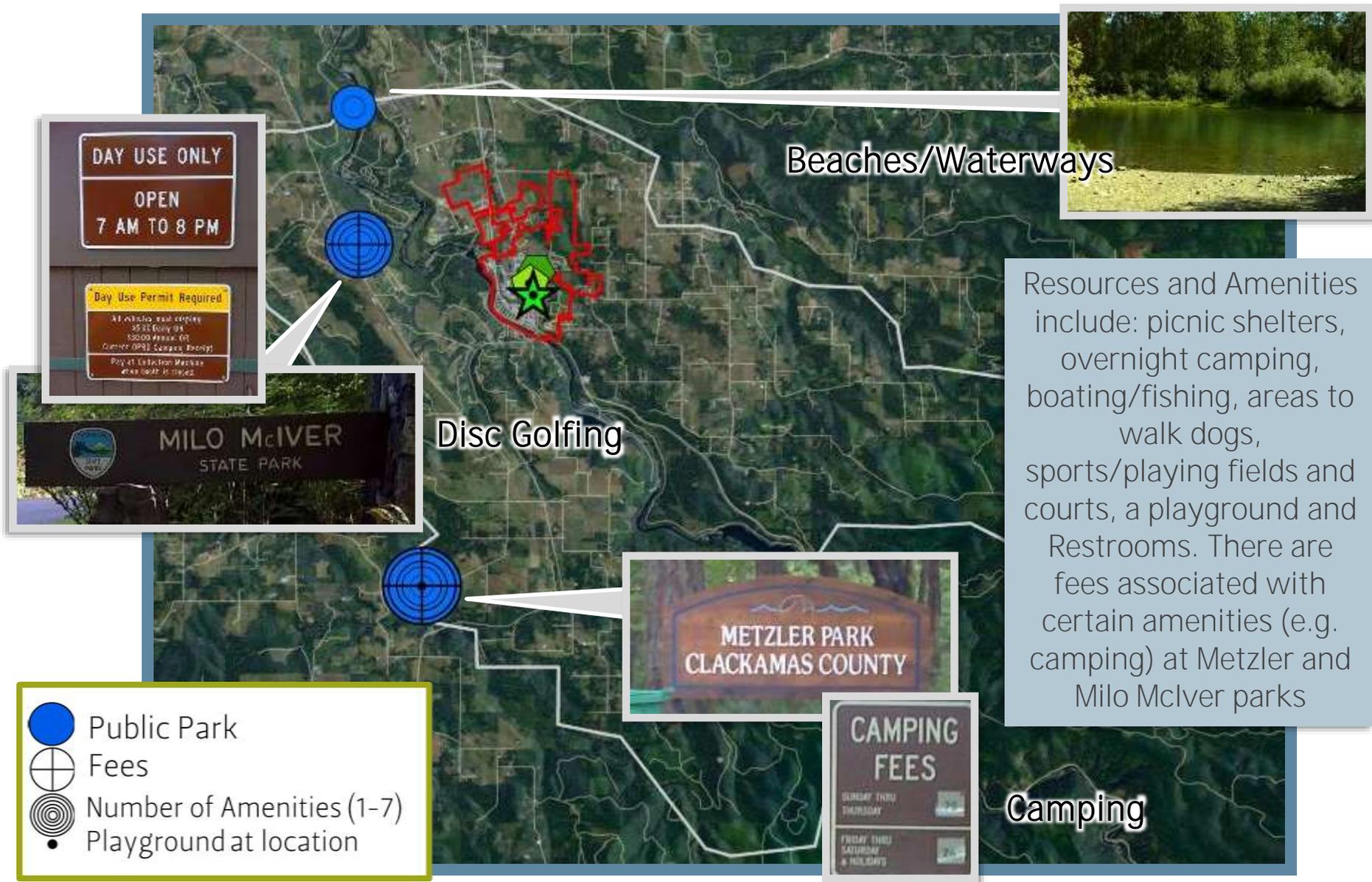


- Public Park
- Fees
- Number of Amenities (1-7)
- Playground at location

There are three other Public Parks in the Estacada area that offer a variety of amenities and options for recreation. These parks all lie outside of city limits and are managed by either the state or county.

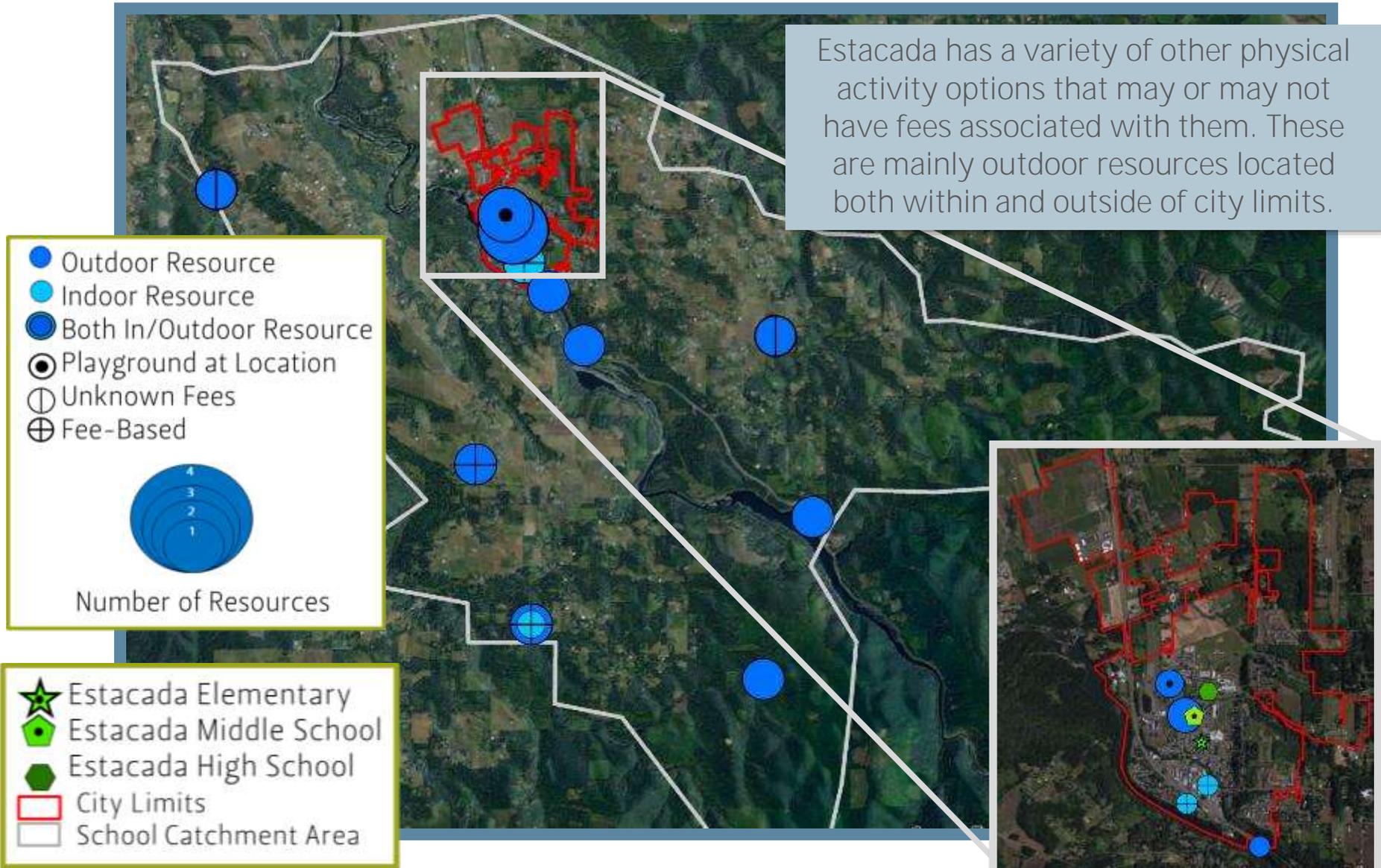
- Estacada Elementary
- Estacada Middle School
- Estacada High School
- City Limits
- School Catchment Area

Resources and Amenities for Other Public Parks and Playgrounds Shown by Location



Other physical Activity Resources

Estacada has a variety of other physical activity options that may or may not have fees associated with them. These are mainly outdoor resources located both within and outside of city limits.



Resources for Other PA Shown by Location

Resources consist of a golf course, beaches/waterways, equestrian centers and trails or logging roads on private timber land

PA options include swimming, hiking, boating, fishing, and horseback riding.

*PA=Physical Activity

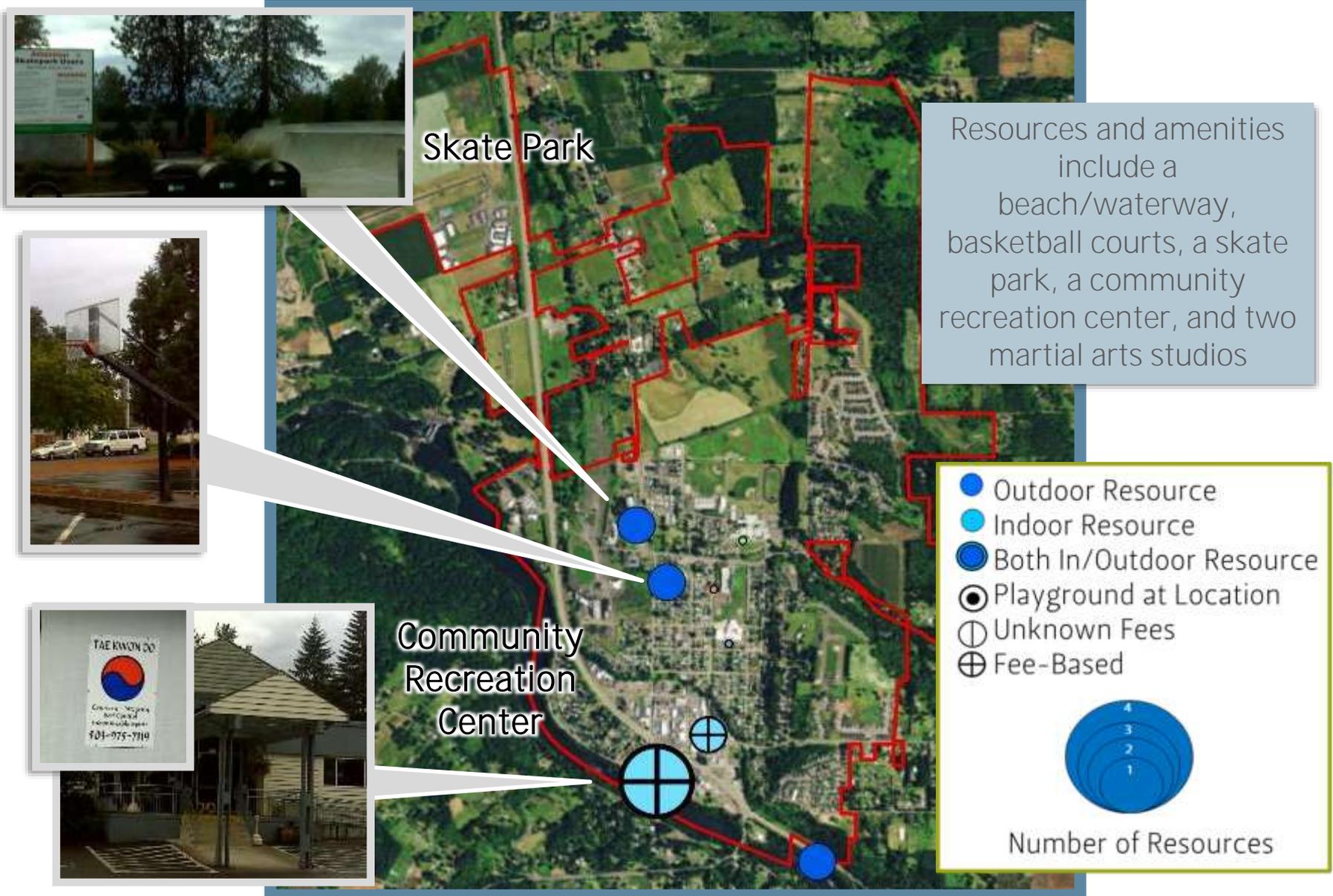
- Outdoor Resource
- Indoor Resource
- Both In/Outdoor Resource
- ⊙ Playground at Location
- ⊖ Unknown Fees
- ⊕ Fee-Based



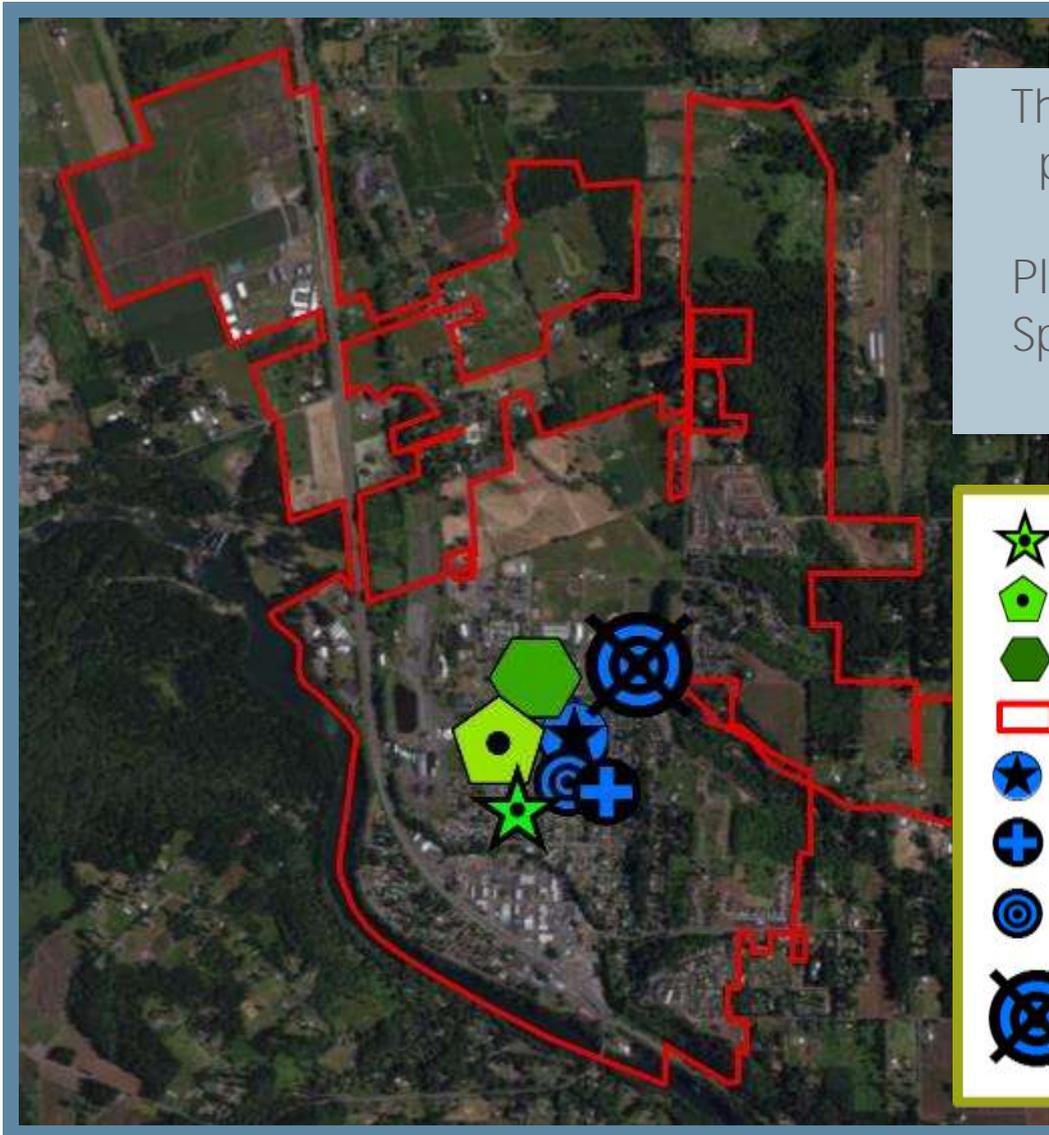
Number of Resources



Resources for Other PA Shown by Location



School Physical Activity Resources



The School District allows public access to Gyms, Garden, the Track, Playgrounds, and various Sports/Playing Fields and Courts

- ★ Estacada Elementary
- ⬠ Estacada Middle School
- ⬡ Estacada High School
- City Limits
- ★ School Garden
- + School Gymnasium
- ⊙ School Fields/Courts
- ⊙ School Gym, Fields/Courts, and Track

School Physical Activity Resources Shown by Location



- ★ Estacada Elementary
- ⬠ Estacada Middle School
- ⬡ Estacada High School
- City Limits
- ★ School Garden
- + School Gymnasium
- ⊙ School Fields/Courts
- ⊙/ School Gym, Fields/Courts, and Track

Ease of Access to Resources

- Spatial accessibility is relative: if you have a car and gas money, your spatial access to resources is potentially only limited by how much time you want to spend in the car. As our goal is to include all potential community members, not just those with a means of transportation, we analyzed the proportion of community members who have “Easy Access” to resources.
- We described Easy Access as being located within a ¼ mile distance to a resource category.
- While Estacada does have some food and physical activity (PA) resources located close-in, the bulk of the PA and Local Food resources are located outside of city limits.
- Resources have been aggregated into 6 categories: ○ Low/No Cost Outdoor PA, ○ Low/No Cost Indoor PA, ○ Fee-Based Outdoor PA, ○ Fee-Based Indoor PA, ○ Local Agriculture, Grocery and Food Assistance, ○ Fast Food/Convenience Store and Restaurant

Low/No Cost PA Resources

Community Centers
Public lands/Parks & Playgrounds
Sports Fields/Courts

Fee-Based PA Resources

Golf Courses
Equestrian centers
Exercise/Fitness centers

Local Agriculture

Farm stands/U-picks
Farmer’s markets
Home-based sales (Eggs, Milk, Veggies)
Hunting/Fishing/Gleaning Supports

Ease of Access to Resources

Analyzed via a ¼ mile network buffer: approximately a 5 to 10 minute walk

Low/No Cost PA Resources

Community Centers
Public lands/Parks & Playgrounds
Sports Fields/Courts

Fee-Based PA Resources

Golf Courses
Equestrian centers
Exercise/Fitness centers

Local Agriculture

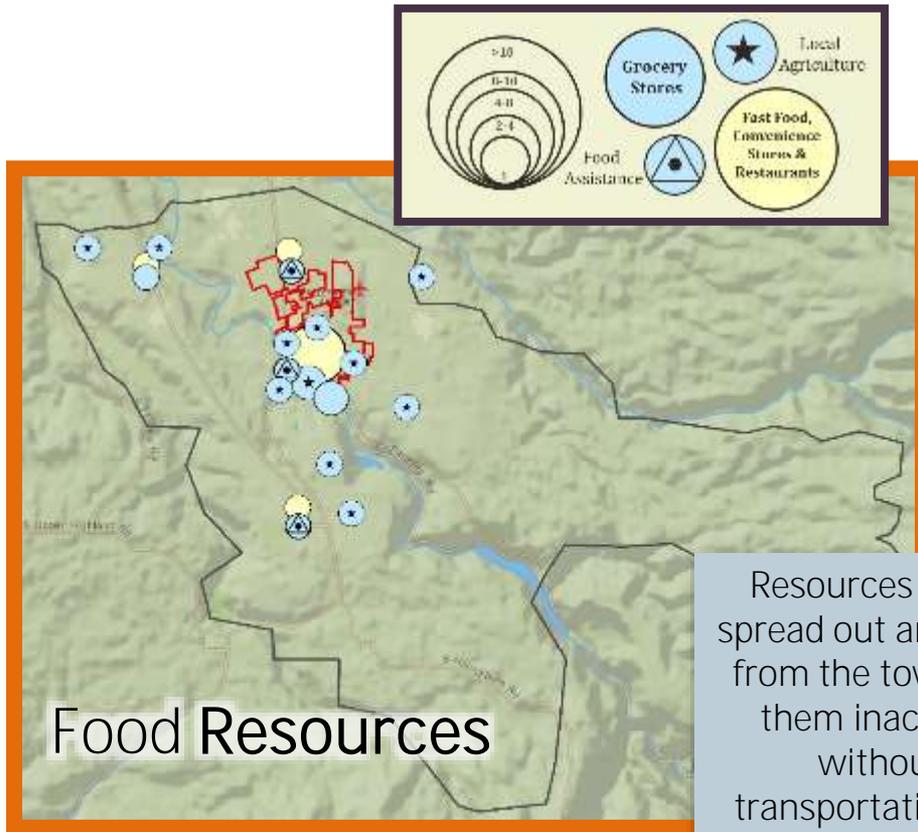
Farm stands/U-picks
Farmer's markets
Home-based sales (Eggs, Milk, Veggies)
Hunting/Fishing/Gleaning Supports

Proportion of Estacada Population within 1/4 mile of Food and Physical Activity Resources



Conclusions

In rural communities, a lack of available resources and accessibility to existing resources may make developing and maintaining healthy dietary and activity habits difficult.



Resources are available, but spread out and often located far from the town center, making them inaccessible to those without a means of transportation. Supports need to be affordable and accessible from where people live and work.

- City Limits
- School Catchment Area

