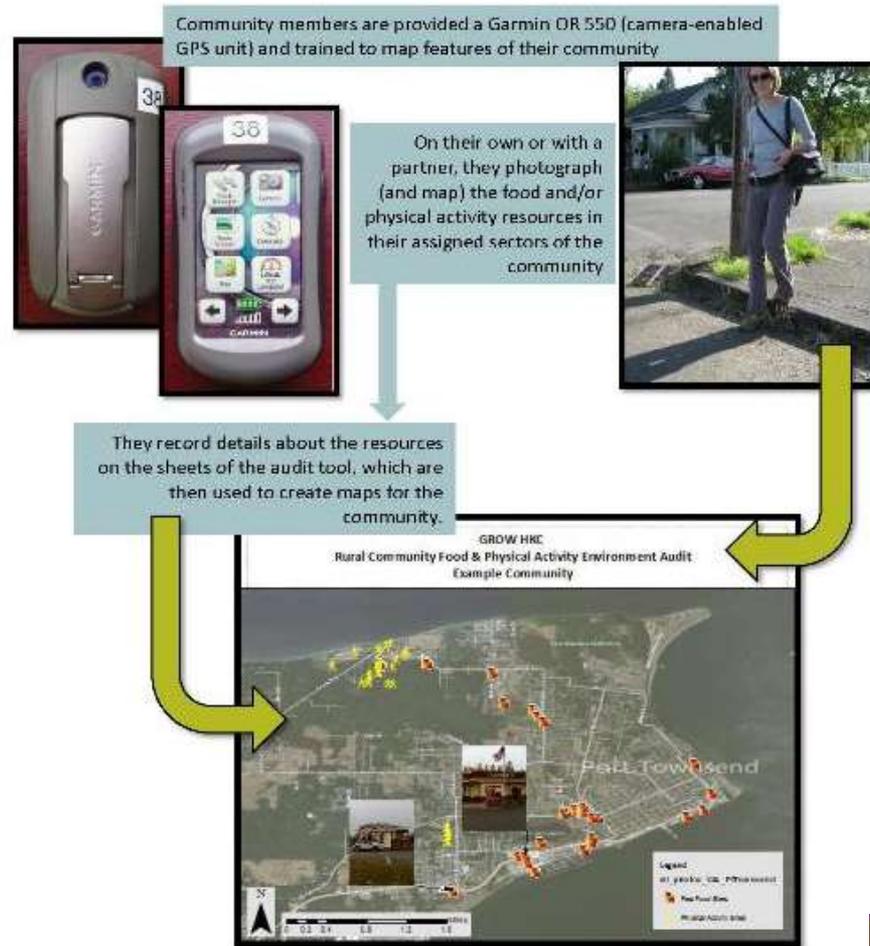


# Rural Community Food and Physical Activity Environment

## Clatskanie Audit Results Maps 2013-2016



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.

This report was generated by Liana Harden and Jenny Rudolph, (Columbia County Extension Family and Community Health), in partnership with the GROW HKC project campus team: Winfield, T., John, D., and Gunter, K.

## 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. These surveys were done twice: first in 2013 and then again in 2016.

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

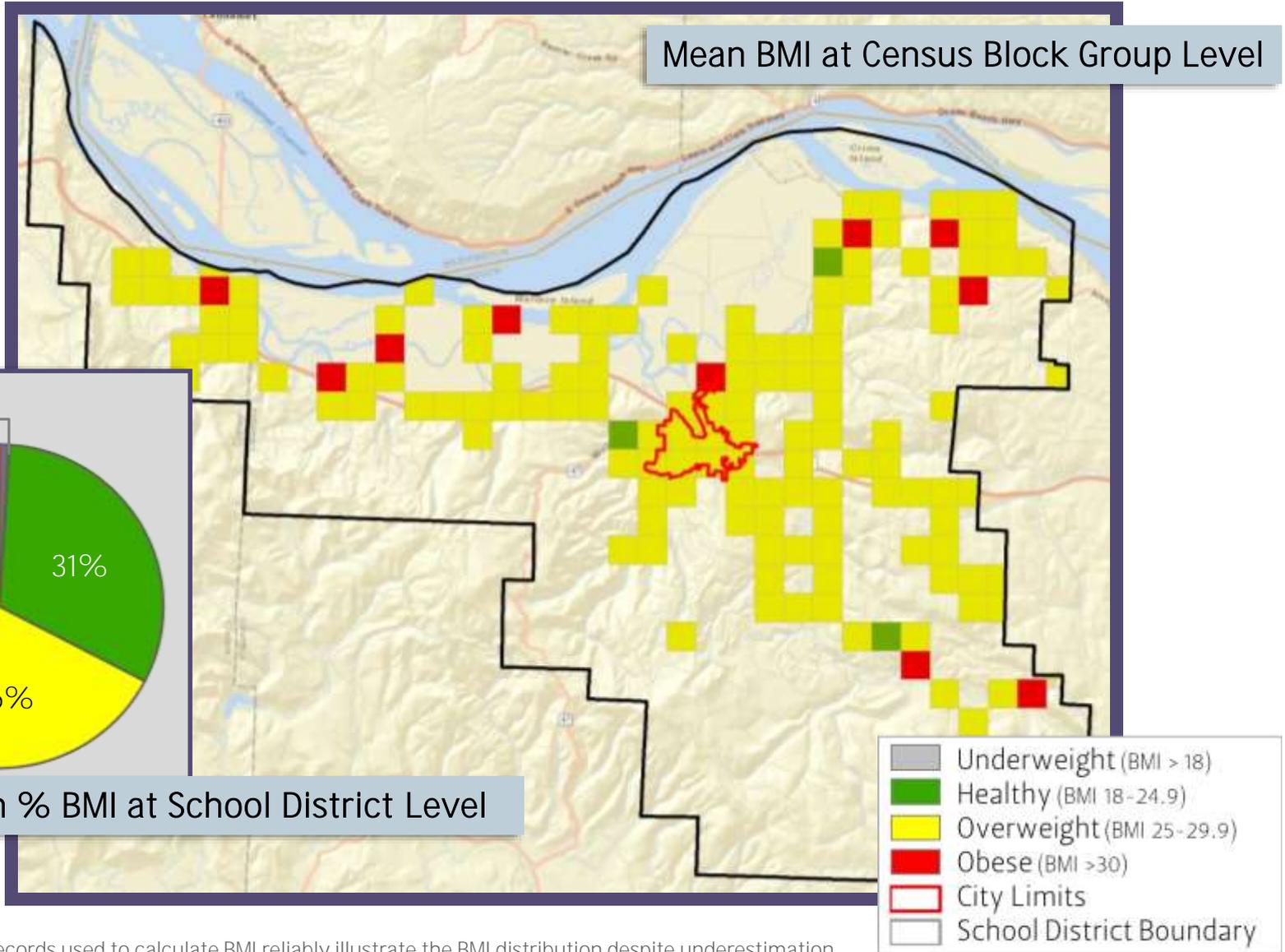


Many risk factors have been associated with childhood obesity, including rural residency

- 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

# Clatskanie Community - Adult Weight Health (BMI)

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



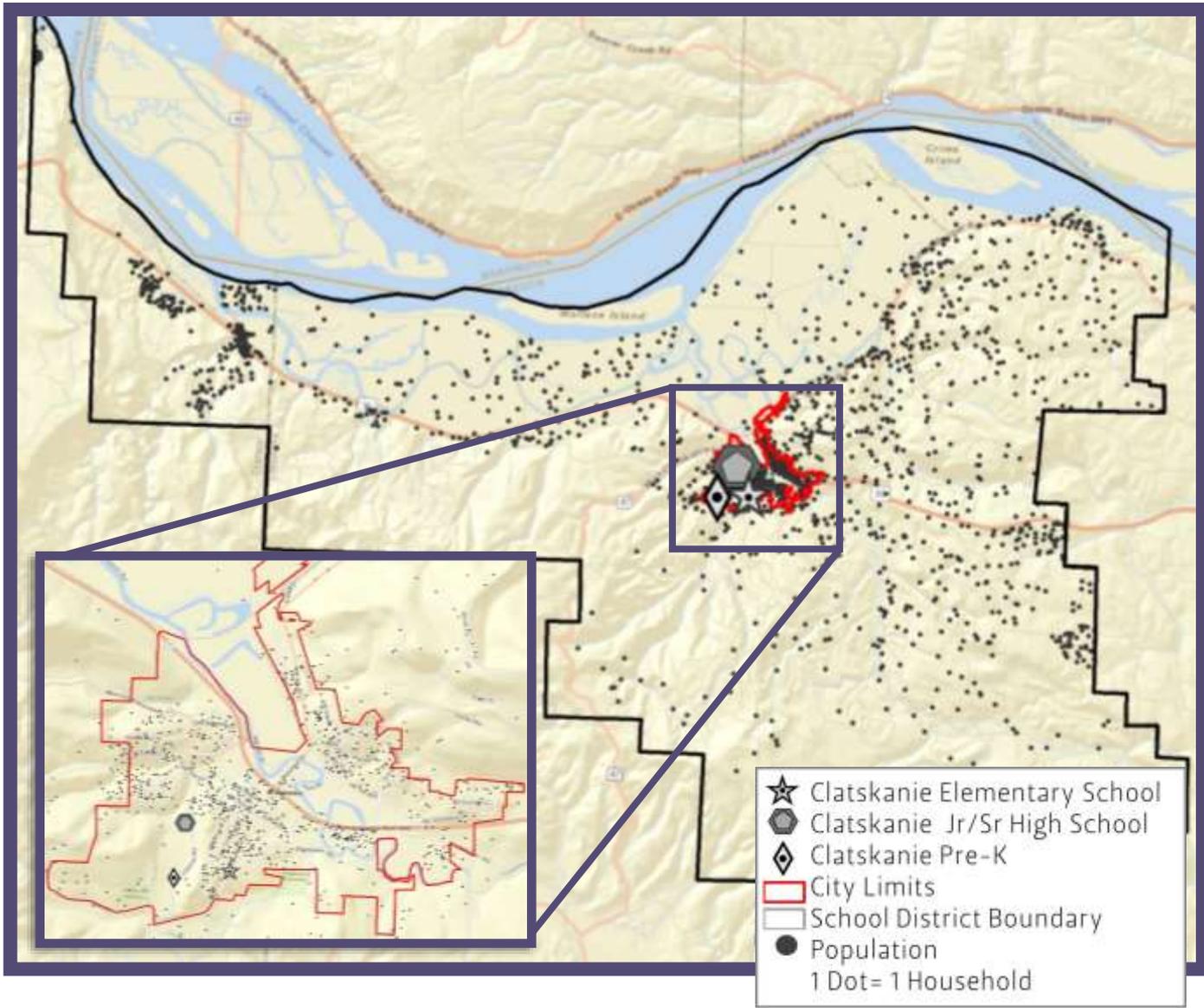
\*2014 DMV records used to calculate BMI reliably illustrate the BMI distribution despite underestimation

# Where People Live Matters for Easy Access to Resources

Community Boundaries Include the Approximate School District Catchment Area ("School District Boundary") for Three Schools and Clatskanie City Limits

Within the School District Boundary, Clatskanie has 5508 people living in 2466 households (2010 census) spatially dispersed in an area of about 124 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.

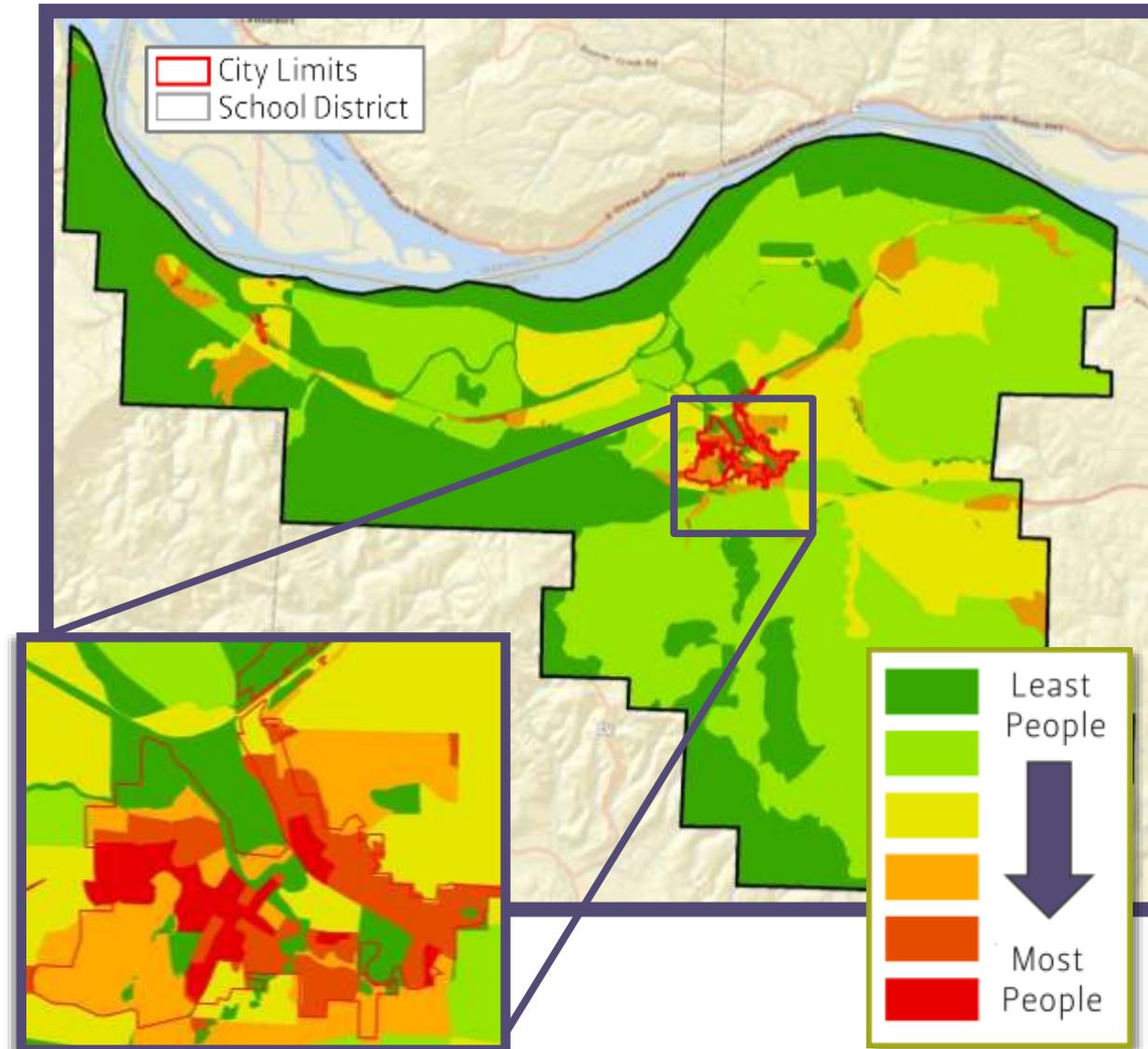


# Using Maps to Show Where Most People Live...

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

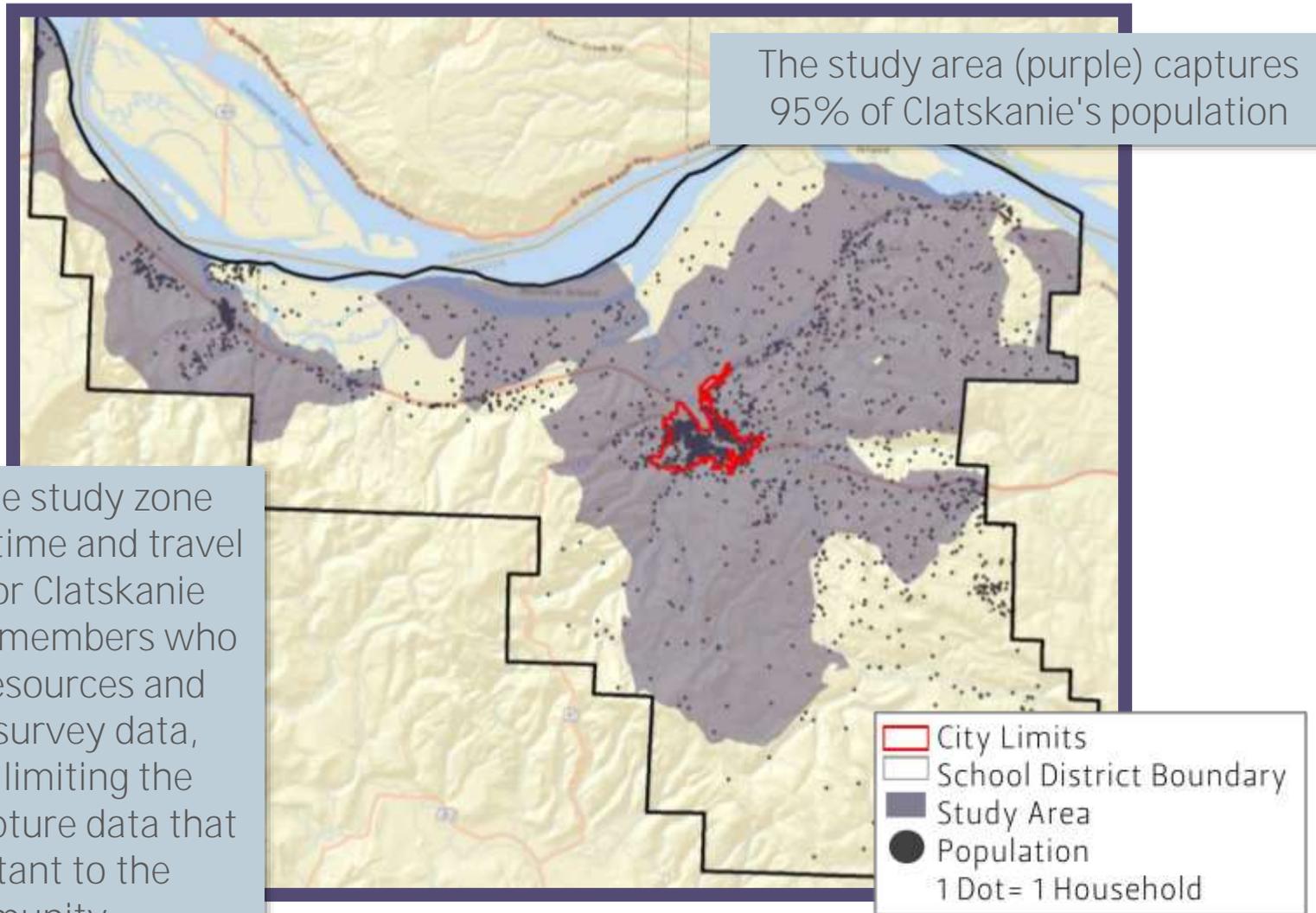
The geographic centers of these clusters were used to create network buffers, ranging in size from 2 to 5 miles, that captured 85% or more of the community population.

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



# Using Maps to Show Where Most People Live: Study Area

A “study area” was defined using the areas most densely populated, in order to determine the food and physical activity resources relevant to where most people live.

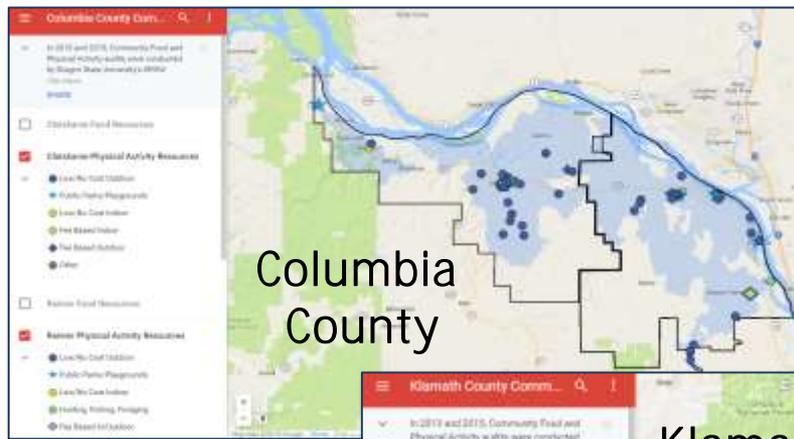


# Resource Maps

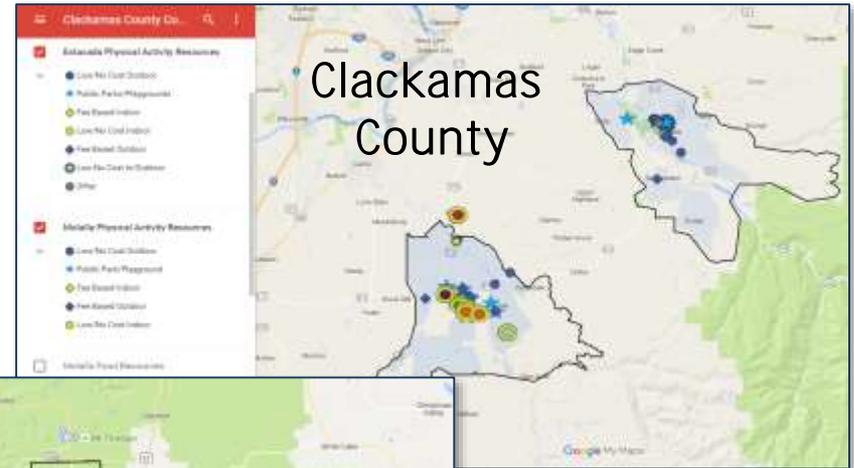
We collected information on resources in each community in 2014 and again in 2016 to assess any changes in resource availability and accessibility in our communities.

We created publicly available resource maps for each community and offer them in this report as well as online via google maps. These can be found by visiting the community maps section of the GROW HKC project website:

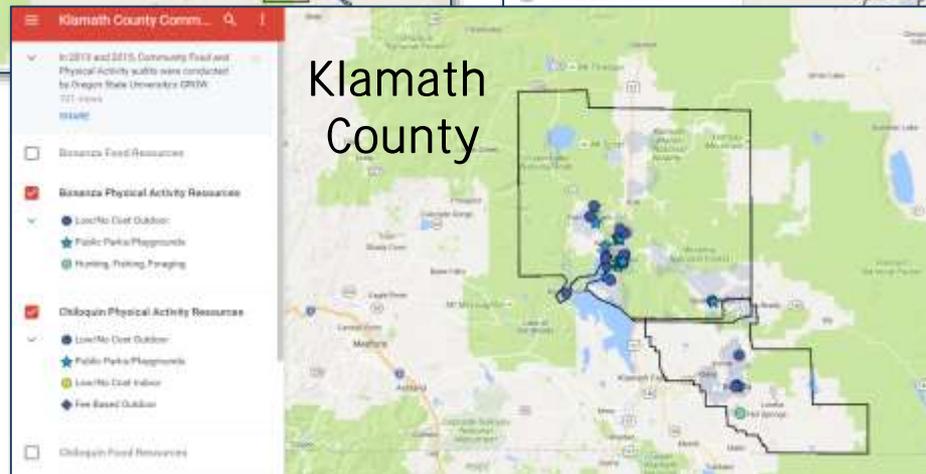
<http://extension.oregonstate.edu/growthkc/outputs/maps>



Columbia County



Clackamas County



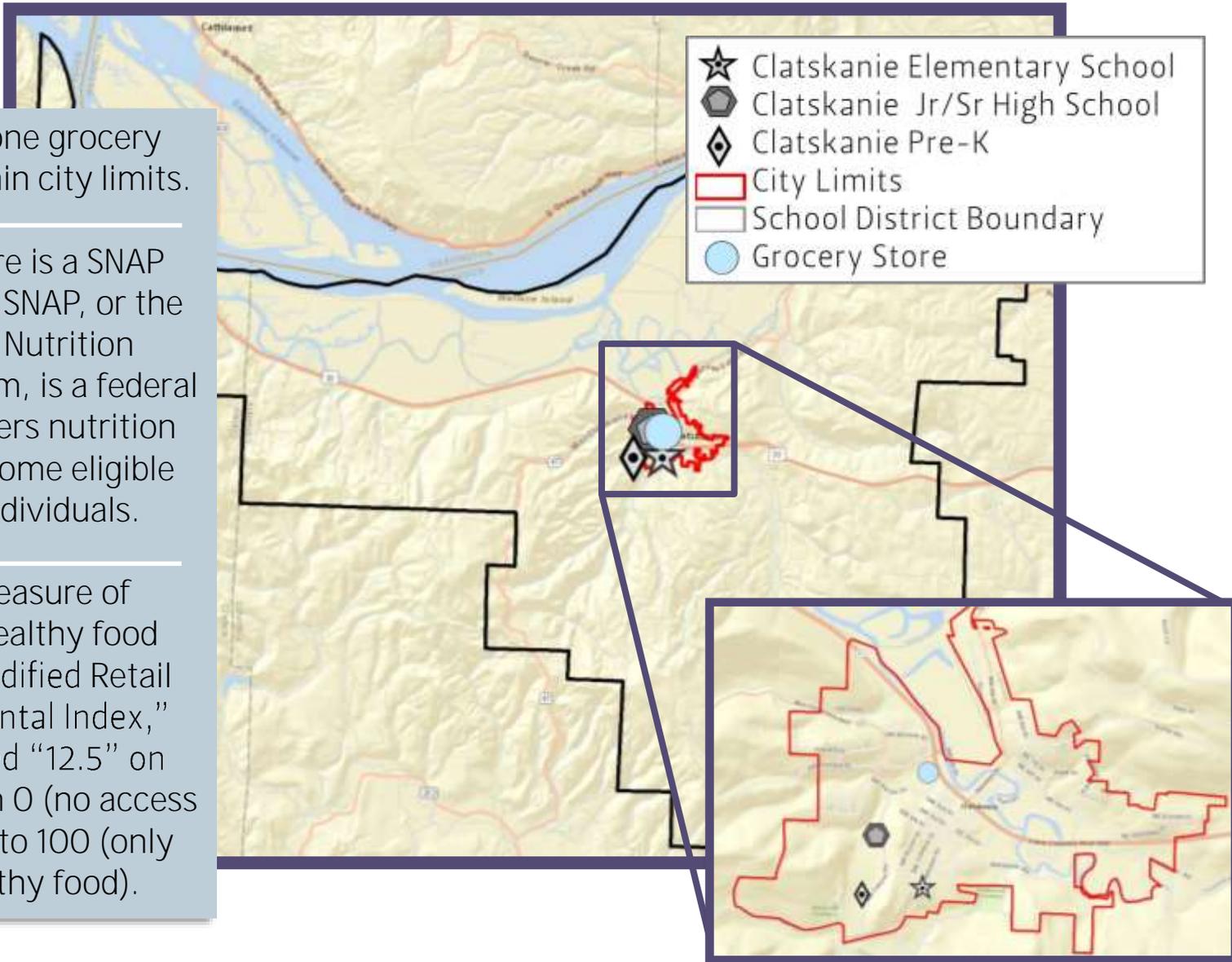
Klamath County

# Grocery Store Locations

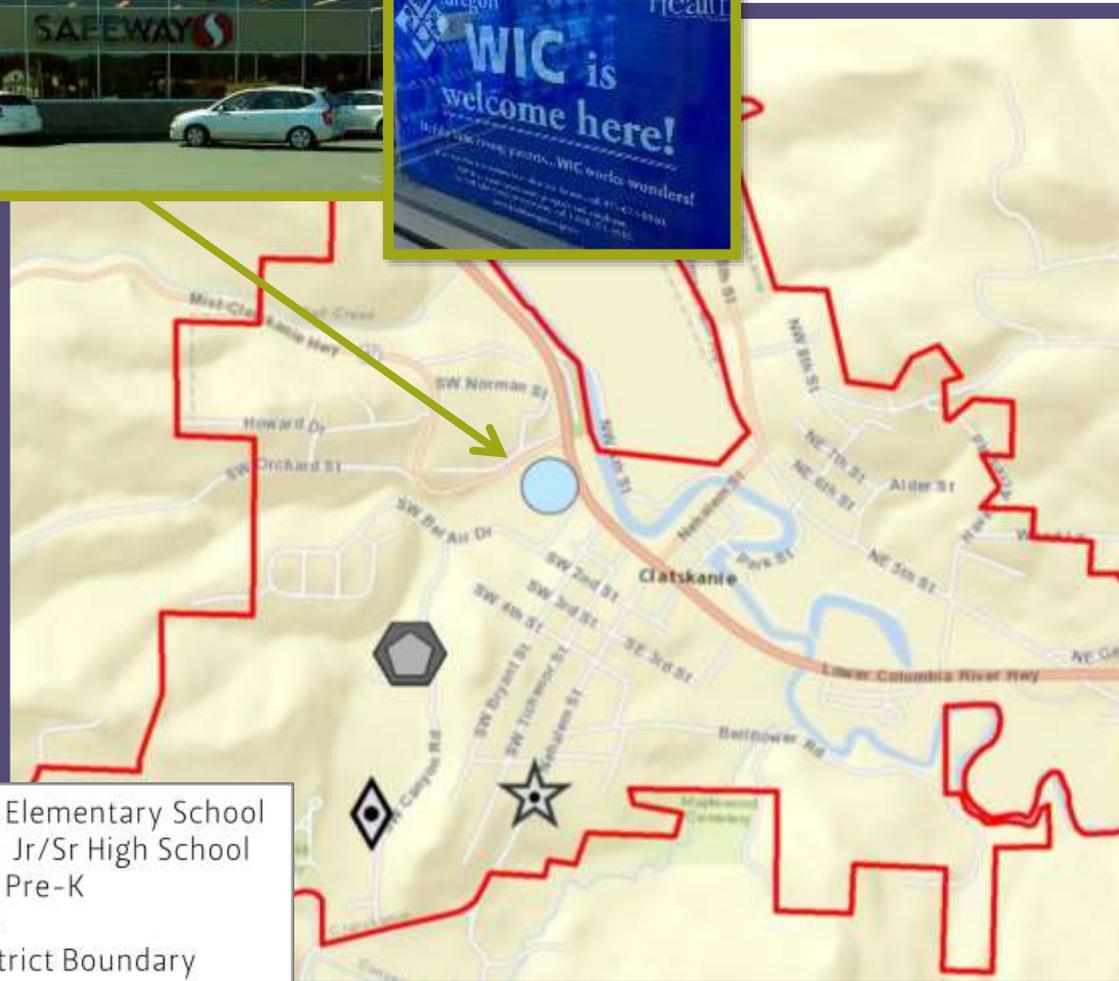
Clatskanie has one grocery store located within city limits.

The grocery store is a SNAP authorized store. SNAP, or the Supplemental Nutrition Assistance Program, is a federal program that offers nutrition assistance to income eligible families and individuals.

Based on a measure of availability of healthy food options, the “Modified Retail Food Environmental Index,” Clatskanie 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



- ★ Clatskanie Elementary School
- ⬡ Clatskanie Jr/Sr High School
- ◆ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- Grocery Store

The Safeway in Clatskanie is a full service supermarket, and is one of the SNAP retailers in town as well as a WIC (Women, Infants, and Children) authorized vendor.

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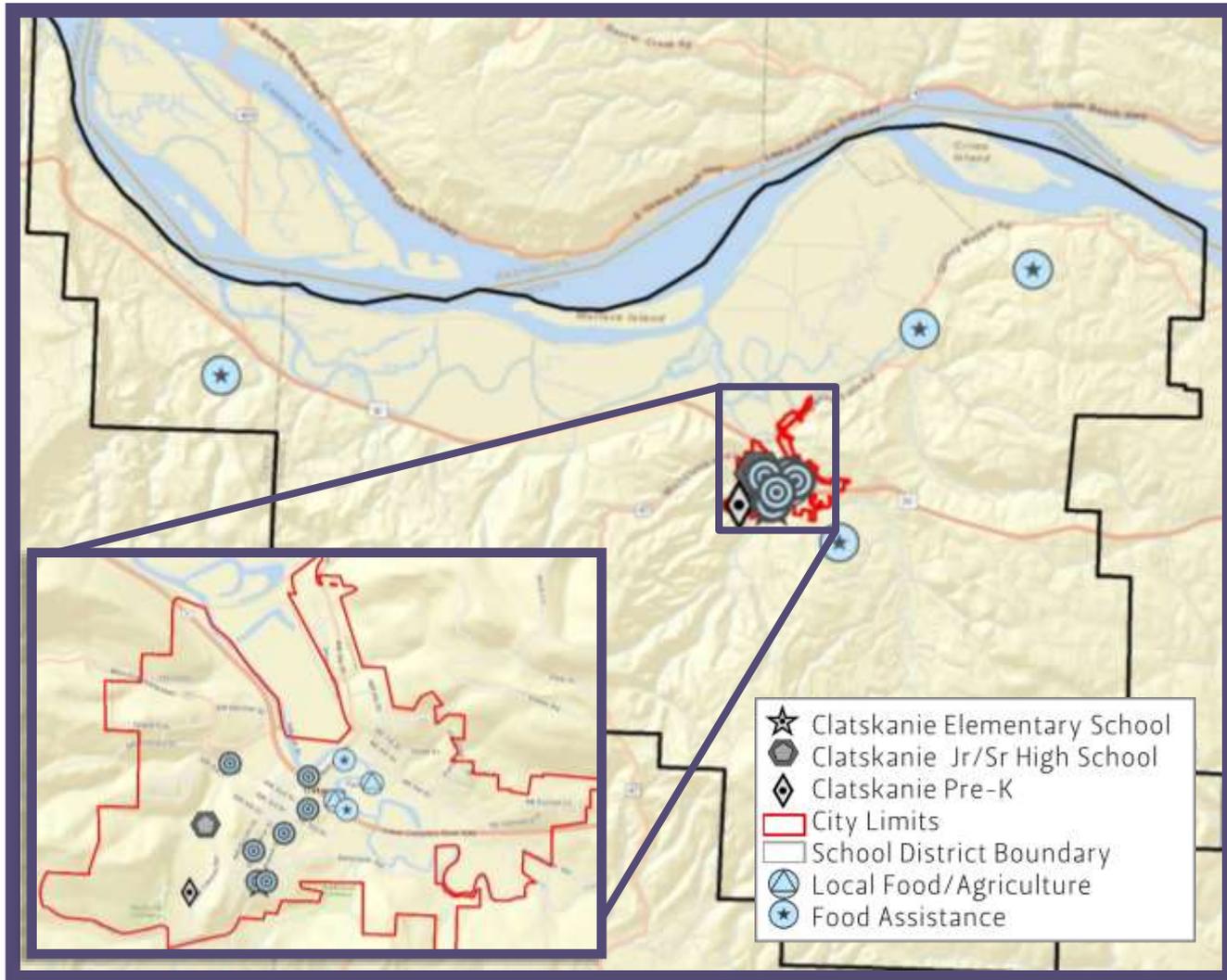
WIC is a SNAP program that provides supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding, and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.

# Change in Resources for Local Food, Agriculture & Food Assistance

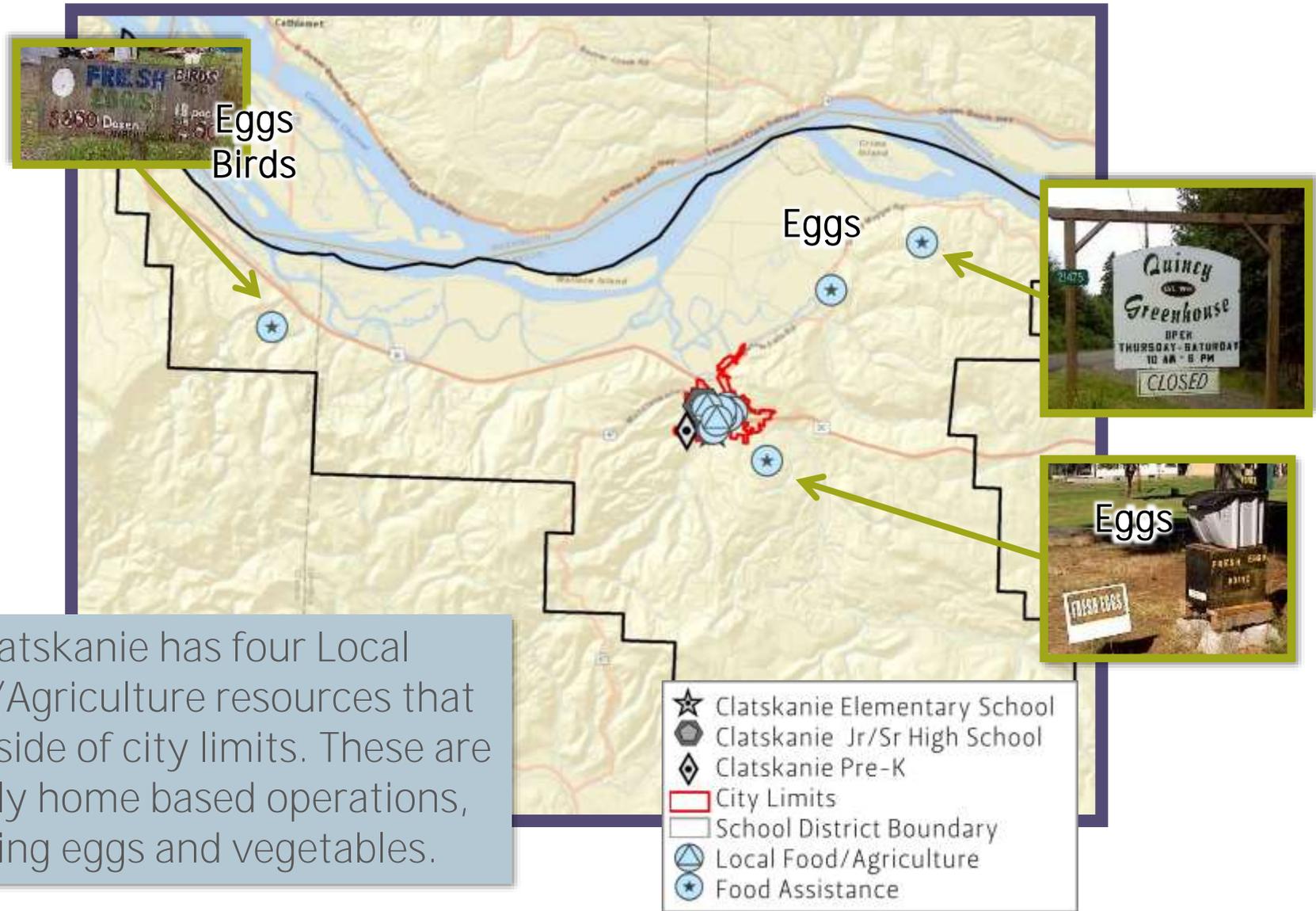
Clatskanie has a variety of local food/agriculture and food assistance resources available, located mainly within city limits.

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

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

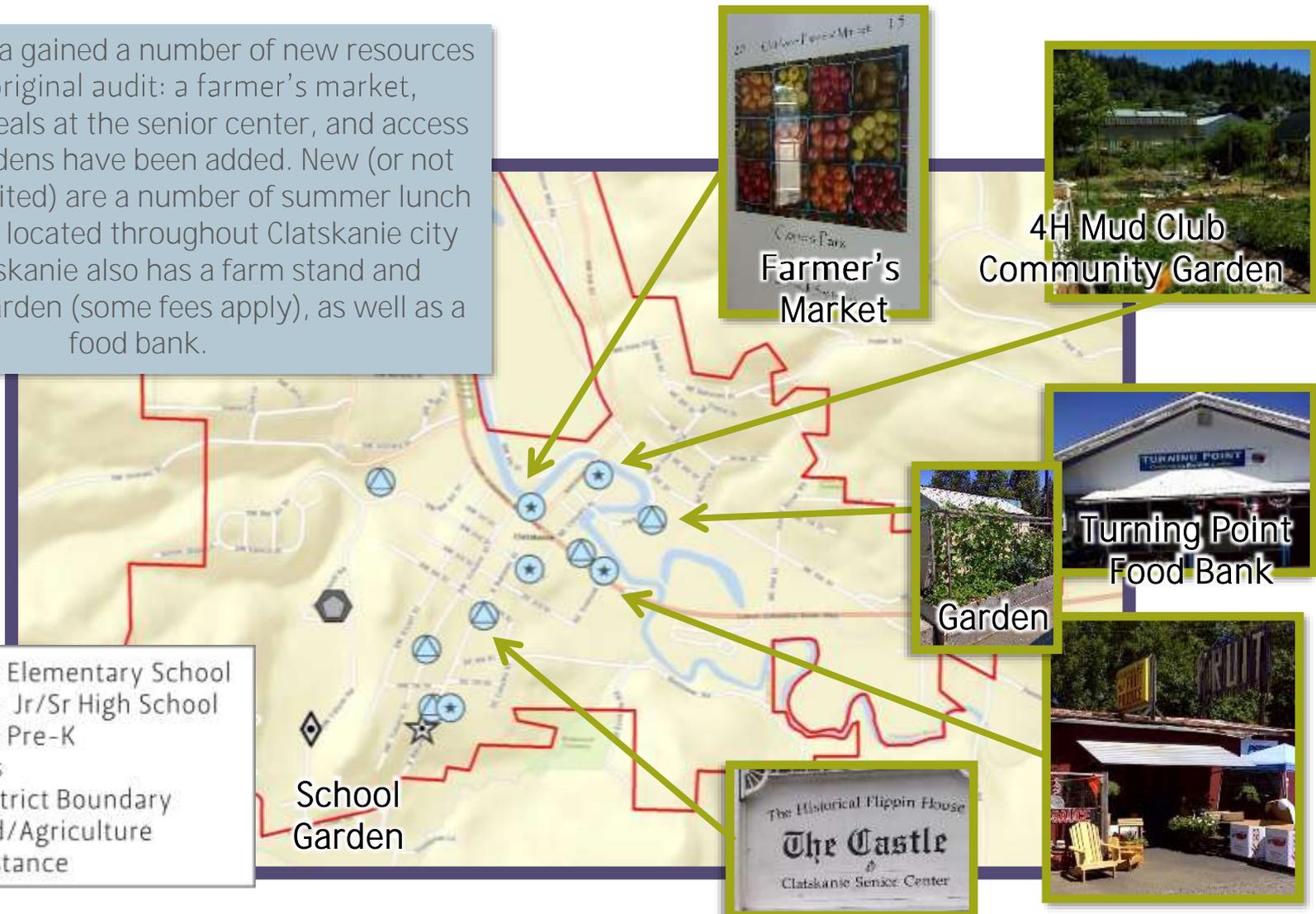


# Resources for Local Food, Agriculture & Food Assistance Shown by Location



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

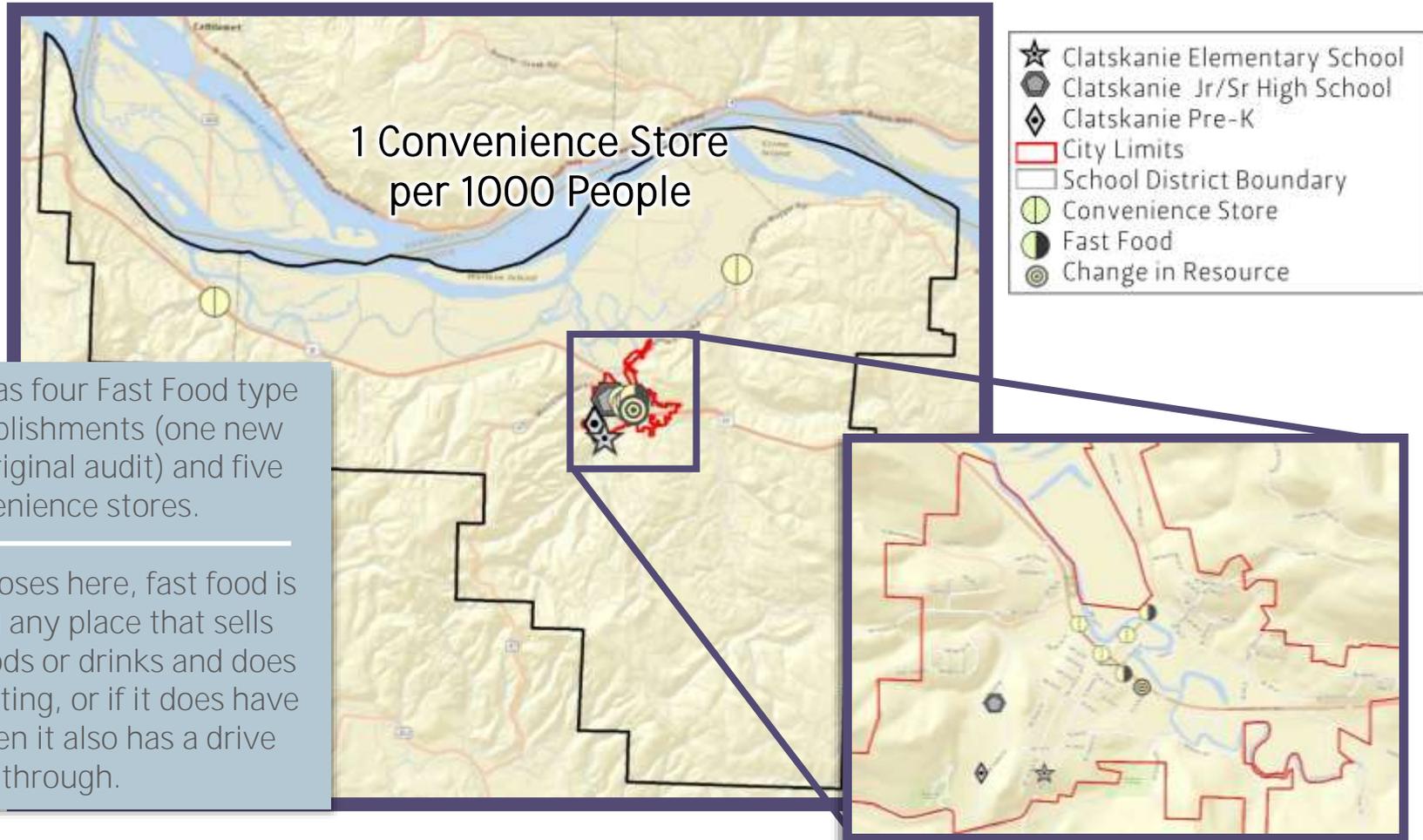
Clatskanie has gained a number of new resources since the original audit: a farmer's market, community meals at the senior center, and access to school gardens have been added. New (or not previously audited) are a number of summer lunch program sites located throughout Clatskanie city limits. Clatskanie also has a farm stand and community garden (some fees apply), as well as a food bank.



- ★ Clatskanie Elementary School
- ⬡ Clatskanie Jr/Sr High School
- ◇ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- △ Local Food/Agriculture
- ★ Food Assistance



# Change in Resources for Fast Food and Convenience Stores

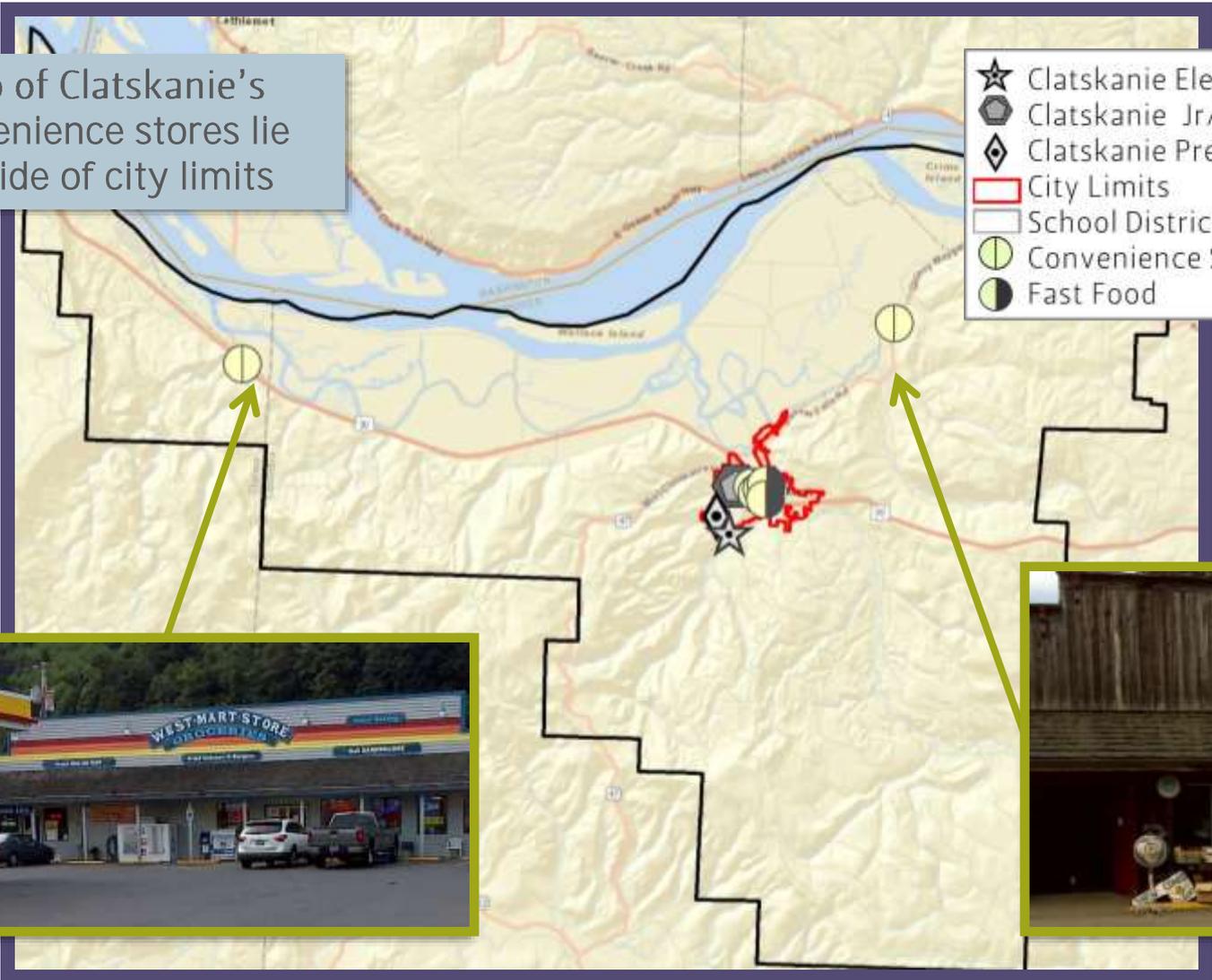


Clatskanie's "Modified Retail Food Environmental Index" score was 12.5 (out of 100). A lower score indicating a higher number of places that don't typically have healthy food and lower numbers of places that would typically have healthy food options

# Resources for Fast Food and Convenience Stores Shown by Location

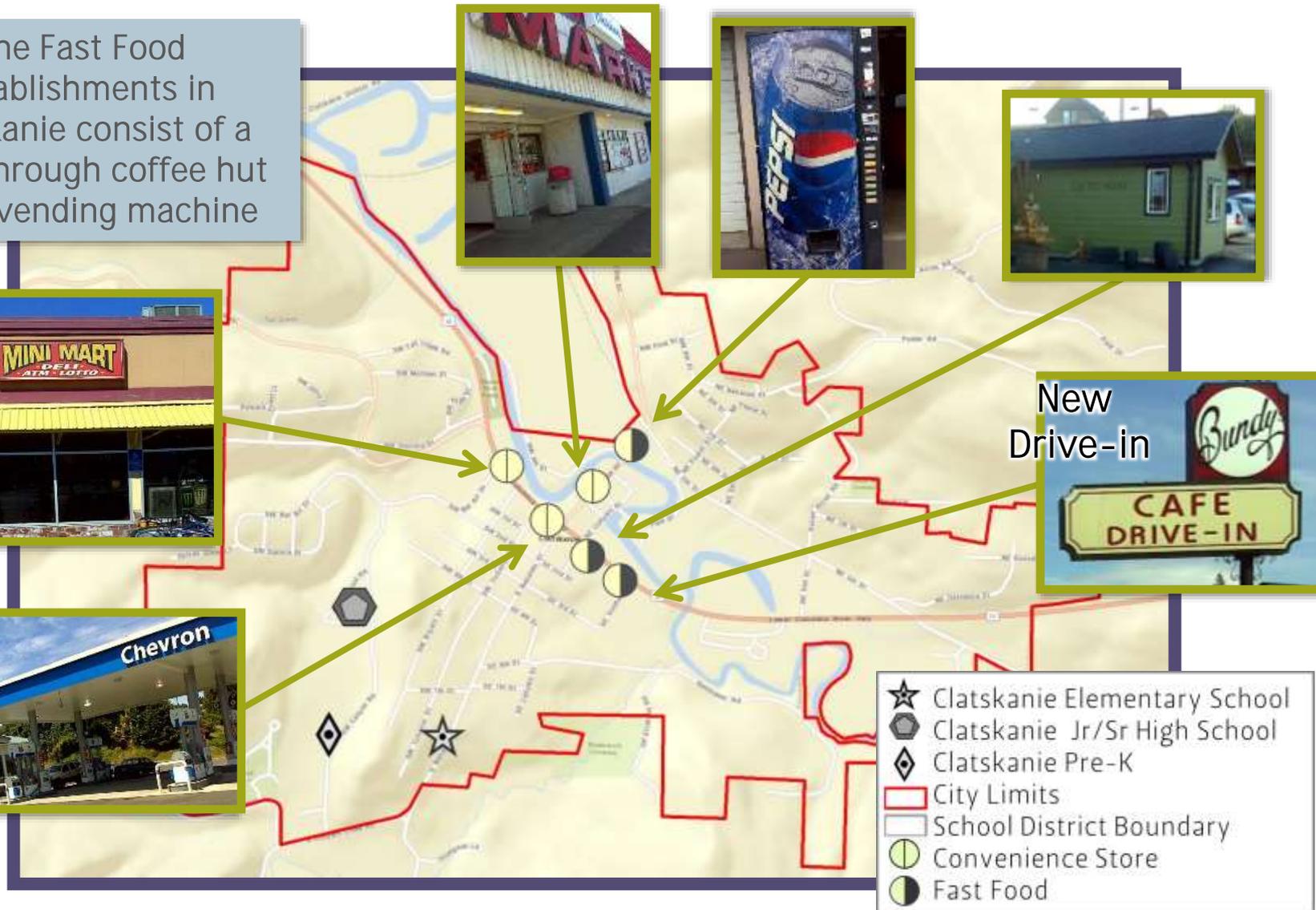
Two of Clatskanie's convenience stores lie outside of city limits

- ★ Clatskanie Elementary School
- ⬡ Clatskanie Jr/Sr High School
- ◊ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- Convenience Store
- ◐ Fast Food



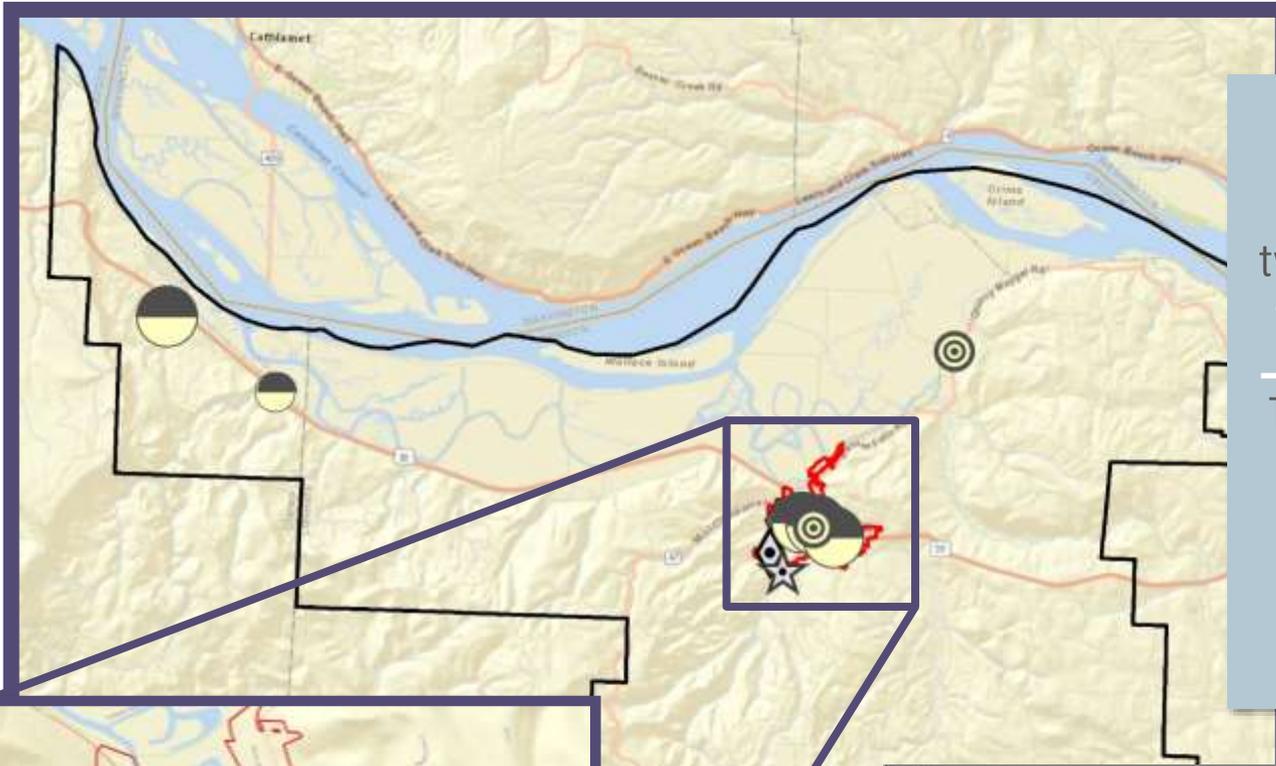
# Resources for Fast Food and Convenience Stores Shown by Location

The Fast Food establishments in Clatskanie consist of a drive through coffee hut and a vending machine



- ★ Clatskanie Elementary School
- ⬡ Clatskanie Jr/Sr High School
- ◇ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- ⊖ Convenience Store
- ⊖ Fast Food

# Change in Resources for Café, Delis, & Restaurants

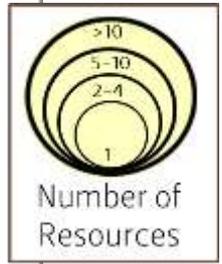


Clatskanie has 14 Café, Deli, Restaurant type eating establishments, two of which were added since the original audit.

There are nine Sit-down Restaurants with table service, three Coffeehouse/Bakeries, and two Deli/Sandwich Shops.



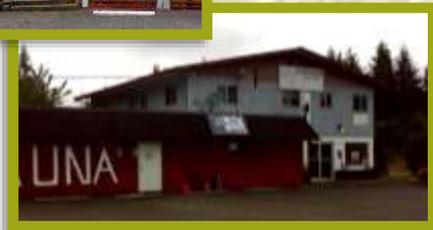
- ★ Clatskanie Elementary School
- ⬡ Clatskanie Jr/Sr High School
- ◆ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- Café, Deli, Restaurant
- ⊙ Change in Resources



# Resources for Café, Delis & Restaurants Shown by Location

Outside of city limits community members can dine at three Sit-down Restaurants with wait staff and one New Deli/Sandwich shop.

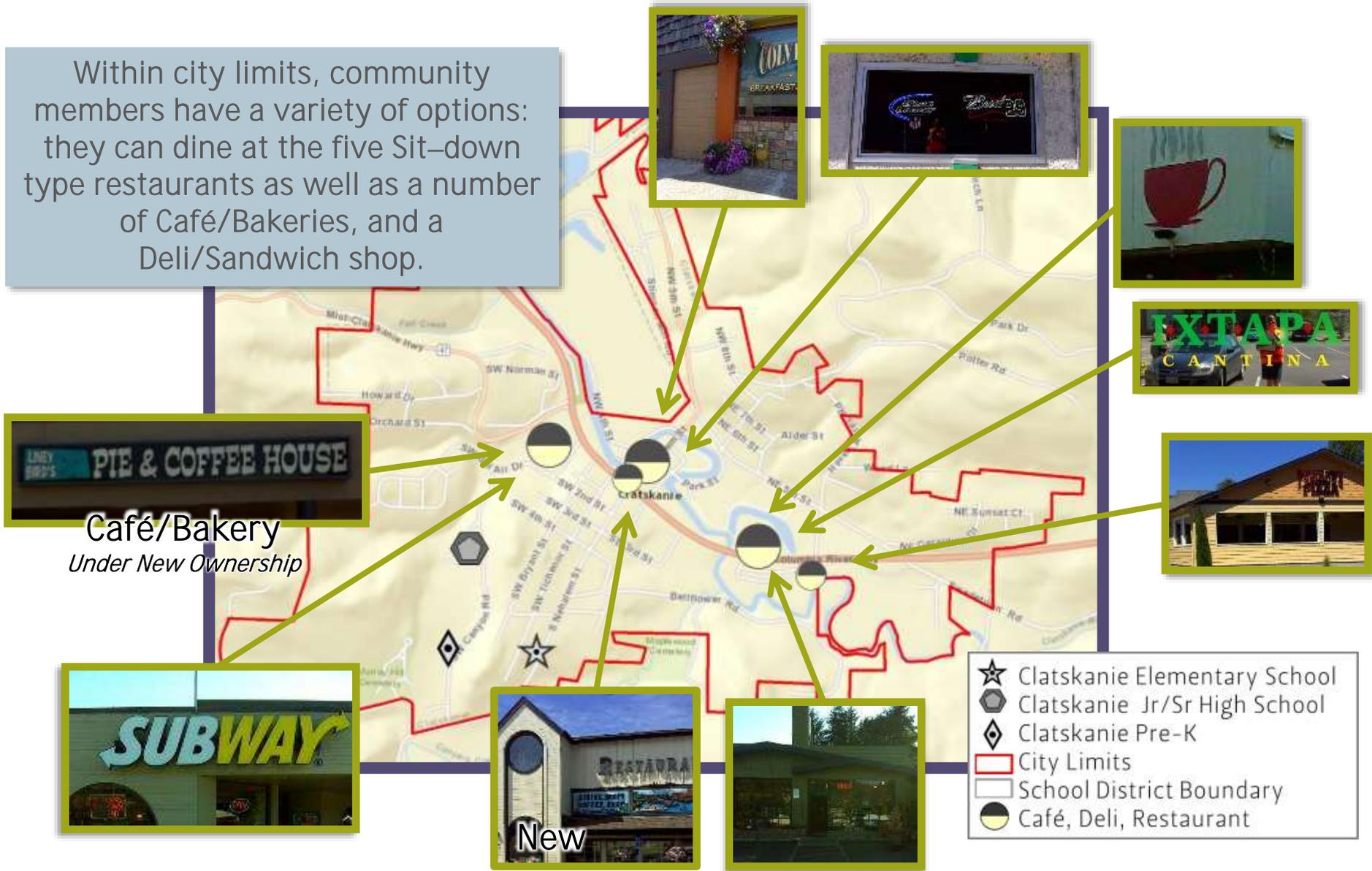
New  
Deli/Sandwich Shop



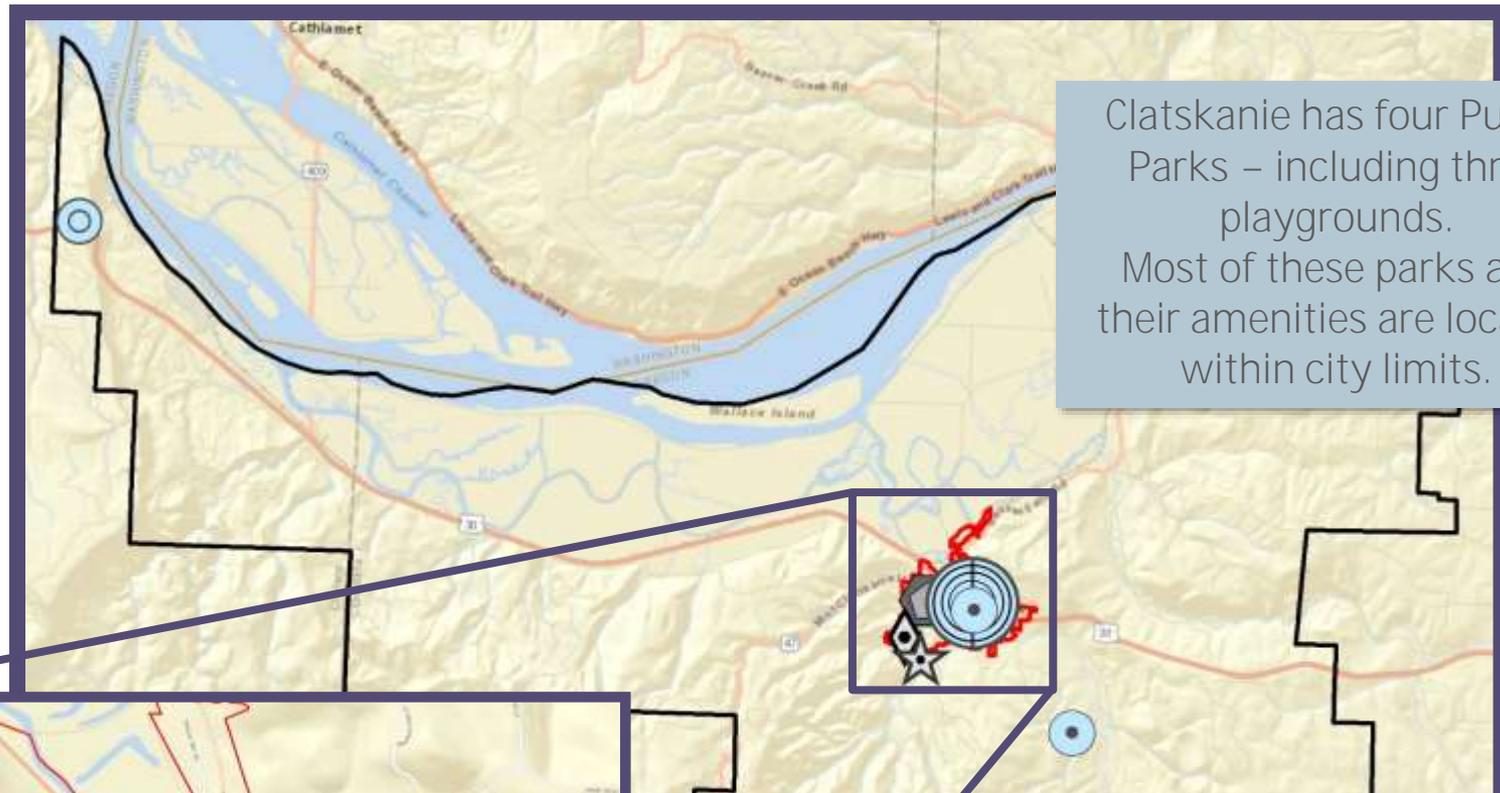
- ★ Clatskanie Elementary School
- ⬠ Clatskanie Jr/Sr High School
- ◆ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- Café, Deli, Restaurant

# Resources for Café, Delis & Restaurants Shown by Location

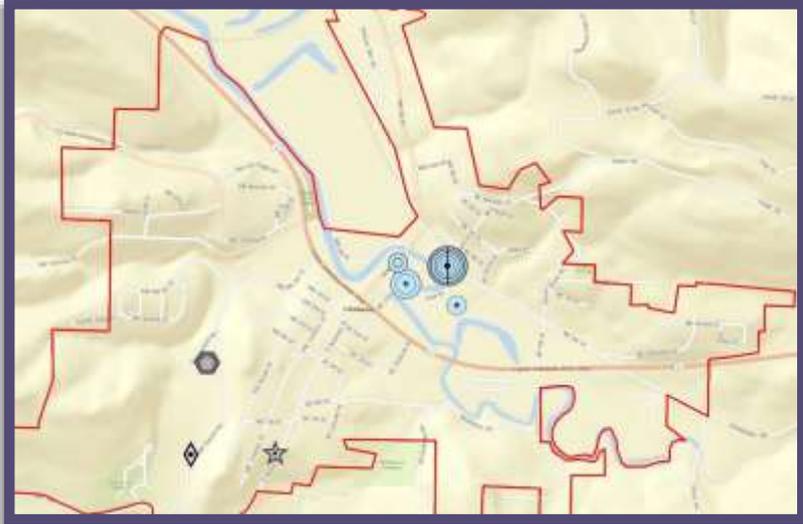
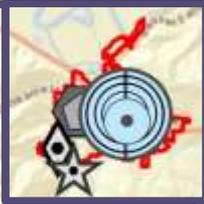
Within city limits, community members have a variety of options: they can dine at the five Sit-down type restaurants as well as a number of Café/Bakeries, and a Deli/Sandwich shop.



# Public Parks and Playgrounds

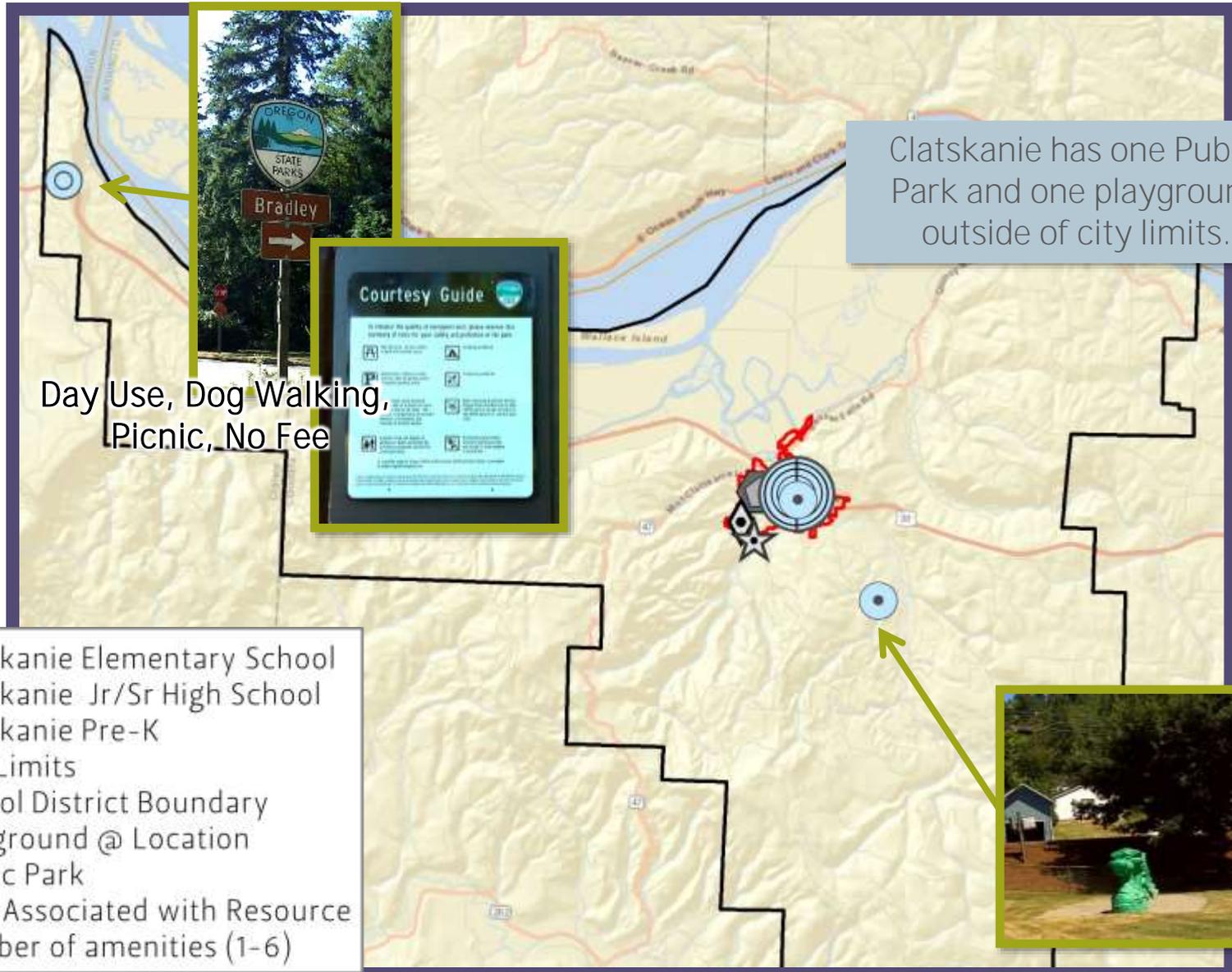


Clatskanie has four Public Parks – including three playgrounds. Most of these parks and their amenities are located within city limits.

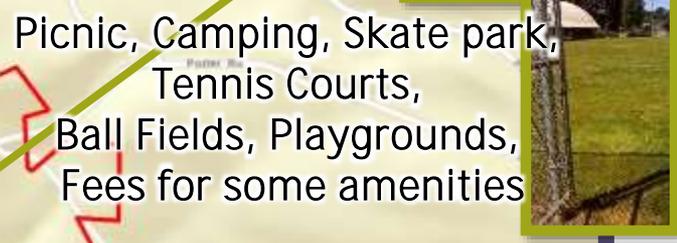


- ★ Clatskanie Elementary School
- ⬡ Clatskanie Jr/Sr High School
- ◆ Clatskanie Pre-K
- ▭ City Limits
- ▭ School District Boundary
- Playground @ Location
- Public Park
- Fees Associated with Resource
- Number of amenities (1-6)

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



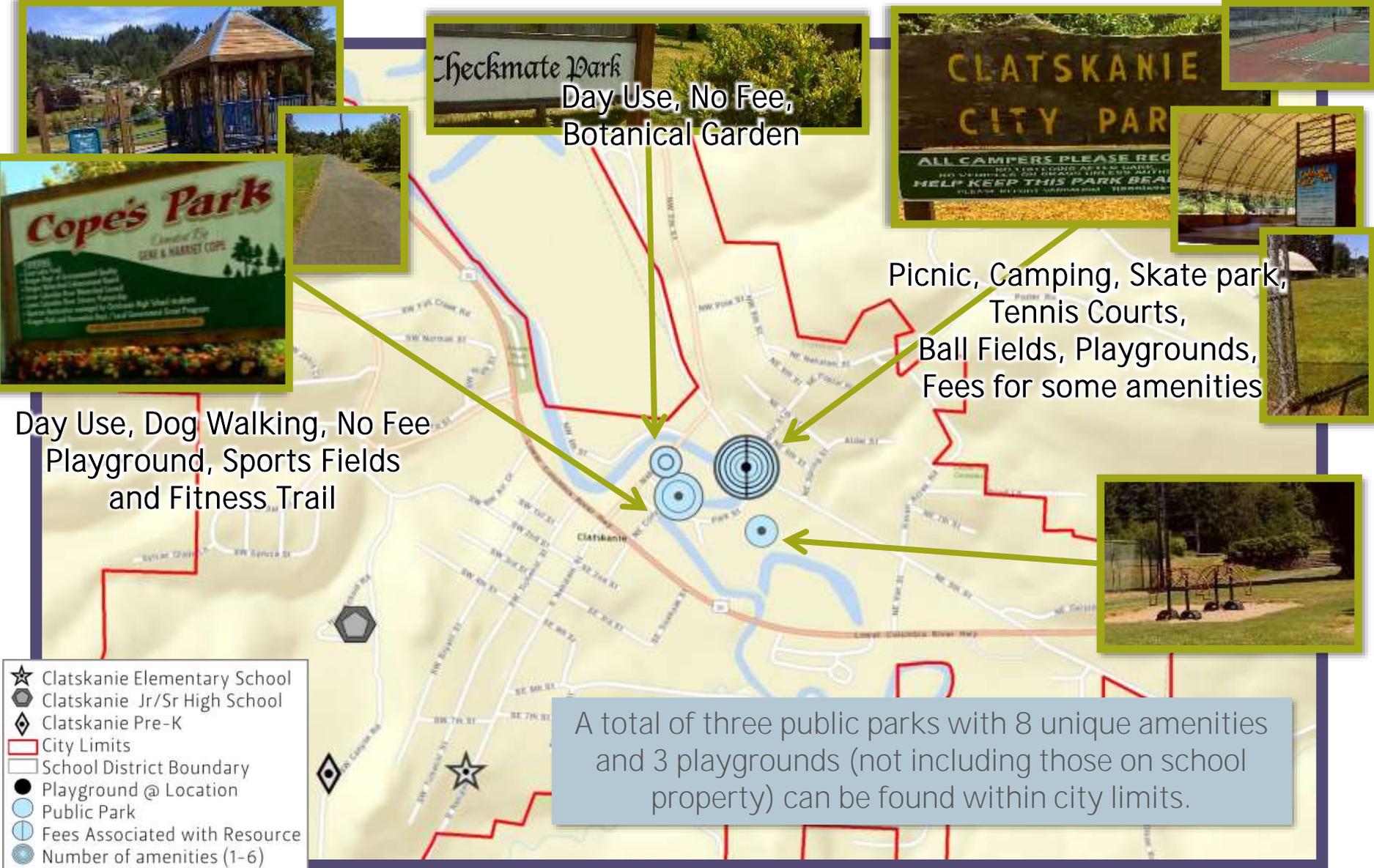
# Resources and Amenities Shown by Location for Public Parks and Playgrounds



Day Use, Dog Walking, No Fee  
Playground, Sports Fields  
and Fitness Trail

Day Use, No Fee,  
Botanical Garden

Picnic, Camping, Skate park,  
Tennis Courts,  
Ball Fields, Playgrounds,  
Fees for some amenities

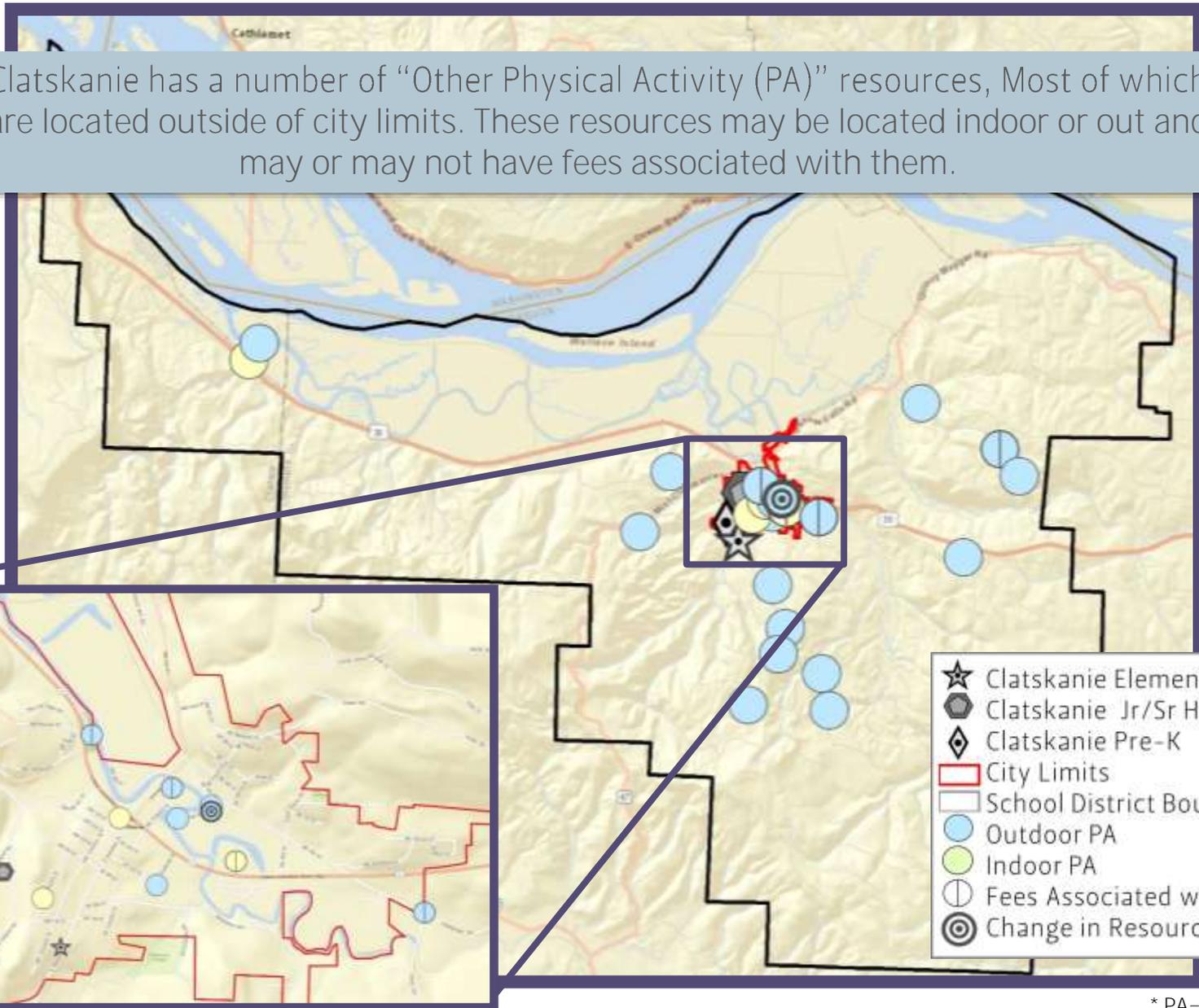


- ★ Clatskanie Elementary School
- ◆ Clatskanie Jr/Sr High School
- ◇ Clatskanie Pre-K-K
- ▭ City Limits
- ▭ School District Boundary
- Playground @ Location
- Public Park
- Fees Associated with Resource
- Number of amenities (1-6)

A total of three public parks with 8 unique amenities and 3 playgrounds (not including those on school property) can be found within city limits.

# Change in Resources for Other Physical Activity

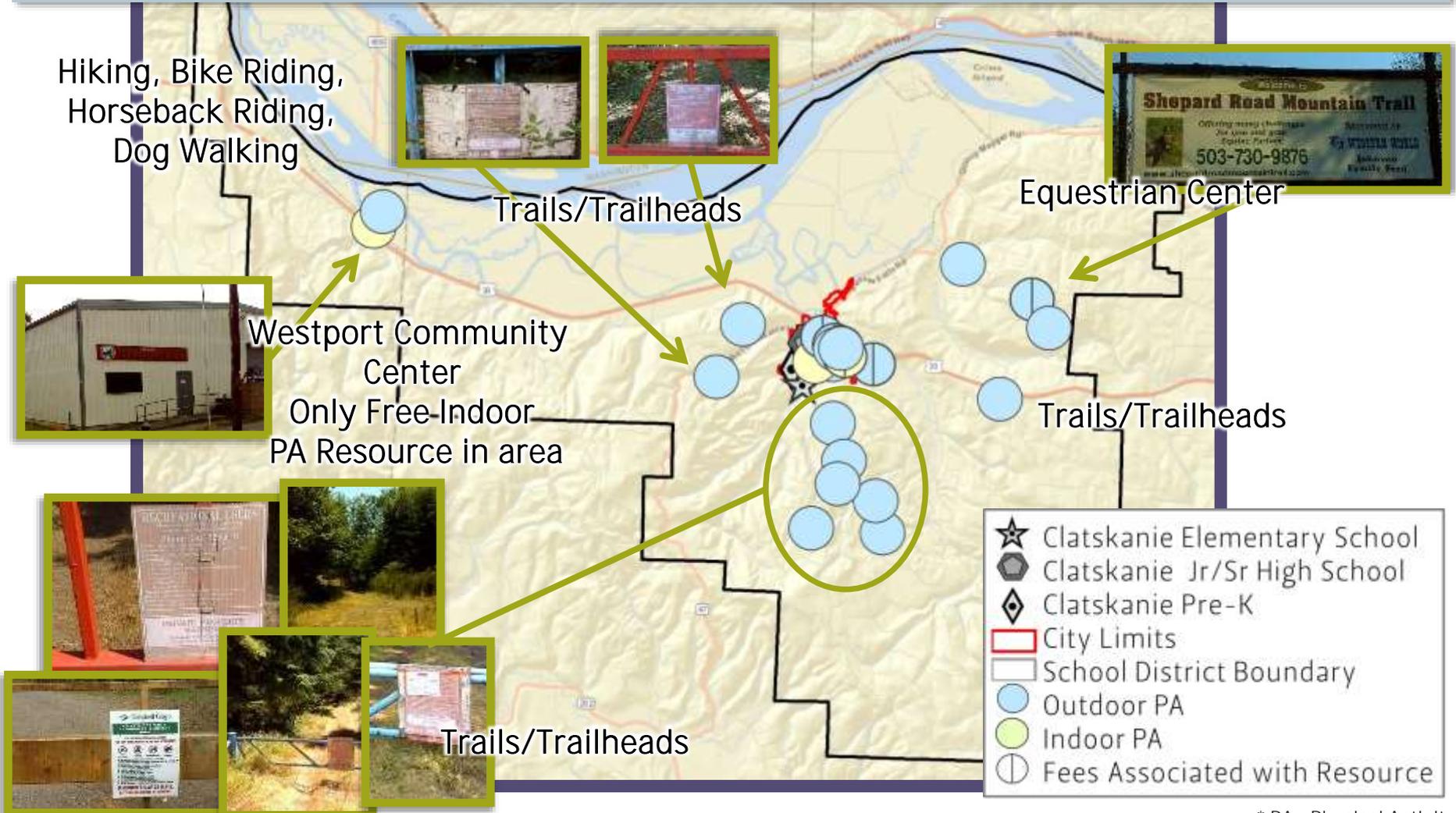
Clatskanie has a number of “Other Physical Activity (PA)” resources, Most of which are located outside of city limits. These resources may be located indoor or out and may or may not have fees associated with them.



\* PA= Physical Activity

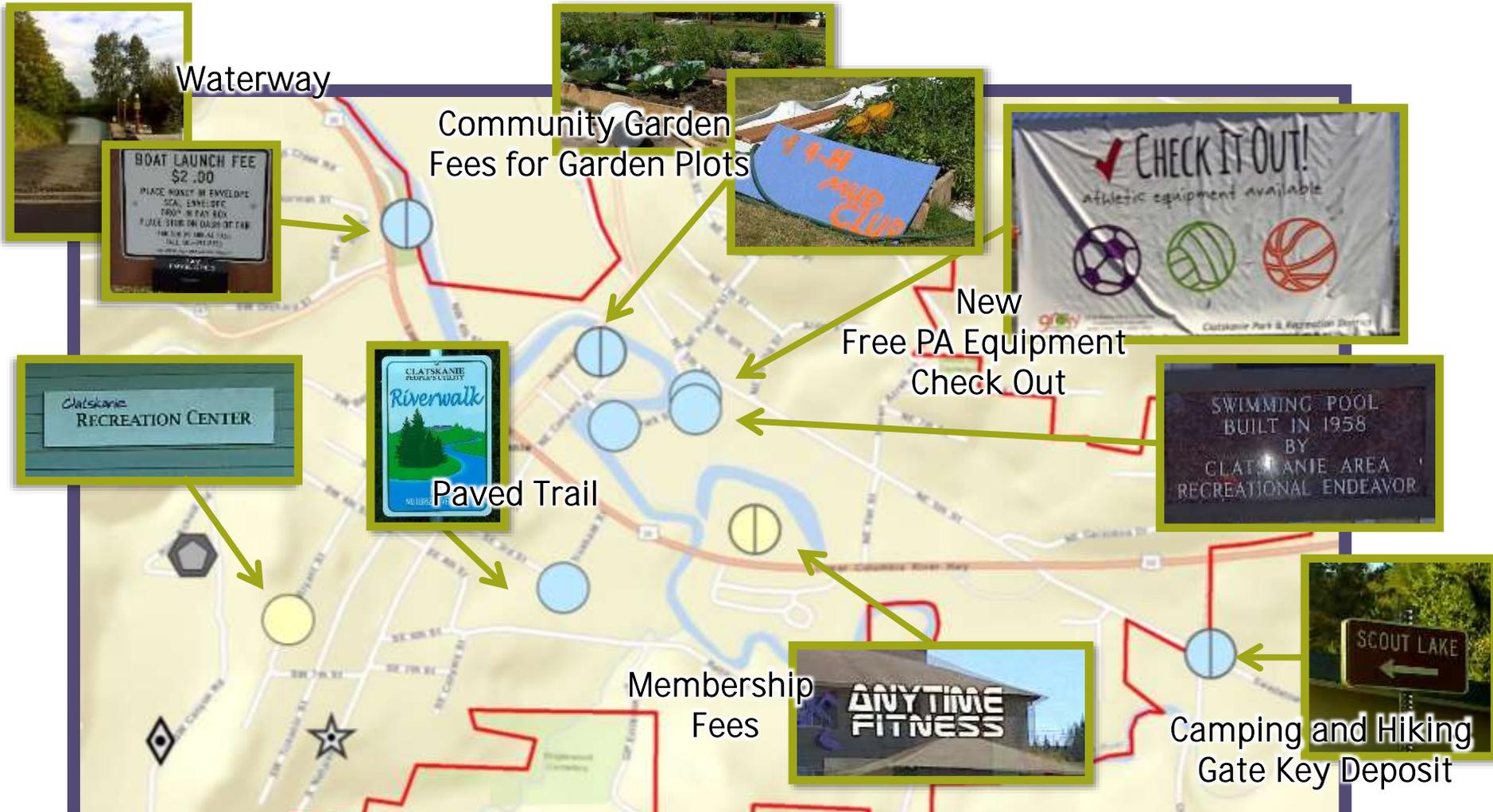
# Resources for Other Physical Activity Shown by Location

Resources are mainly trails/logging roads on private timber land, which may be closed due to fire danger or logging activities.



\* PA= Physical Activity

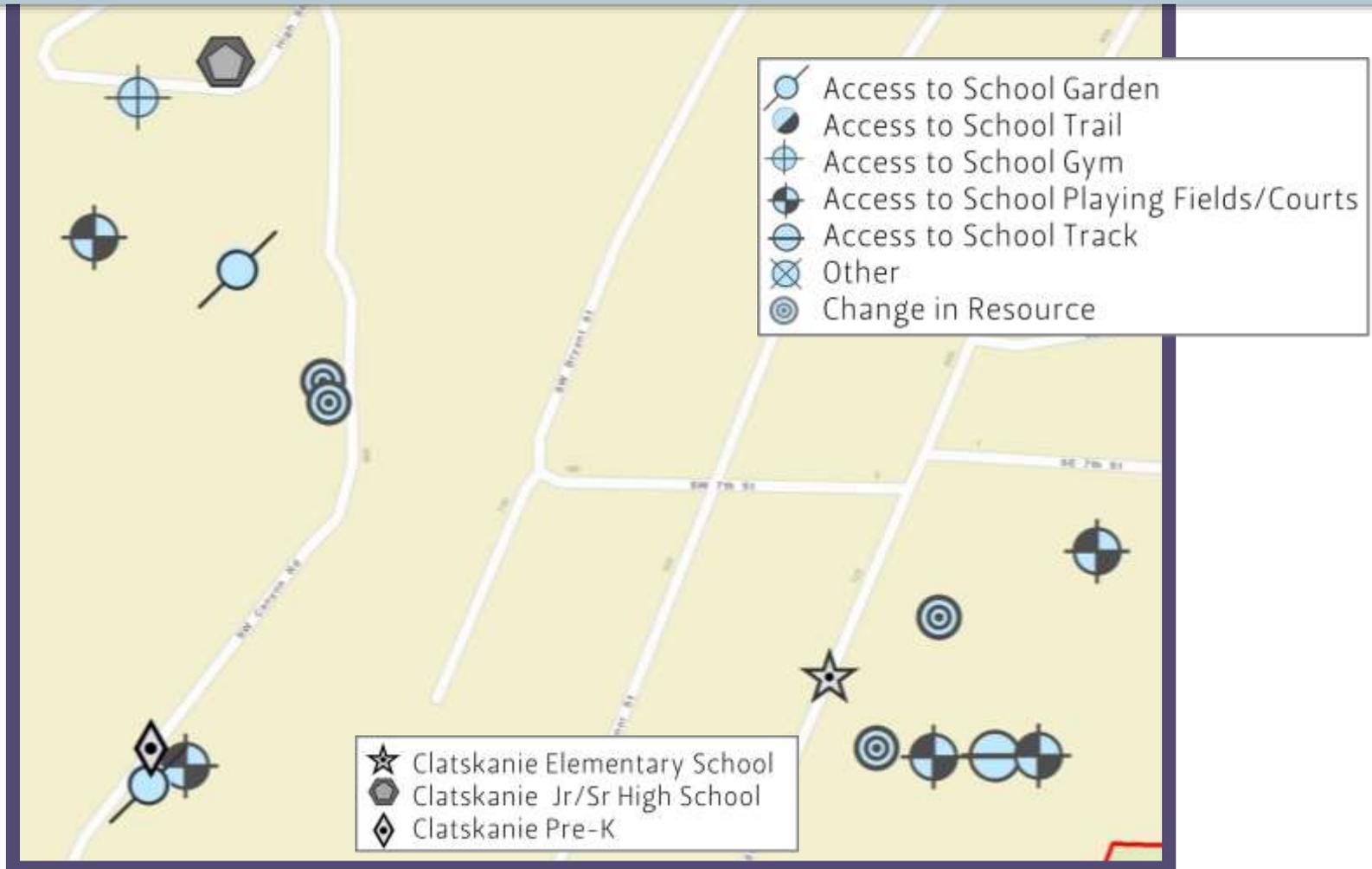
# Resources for Other Physical Activity Shown by Location



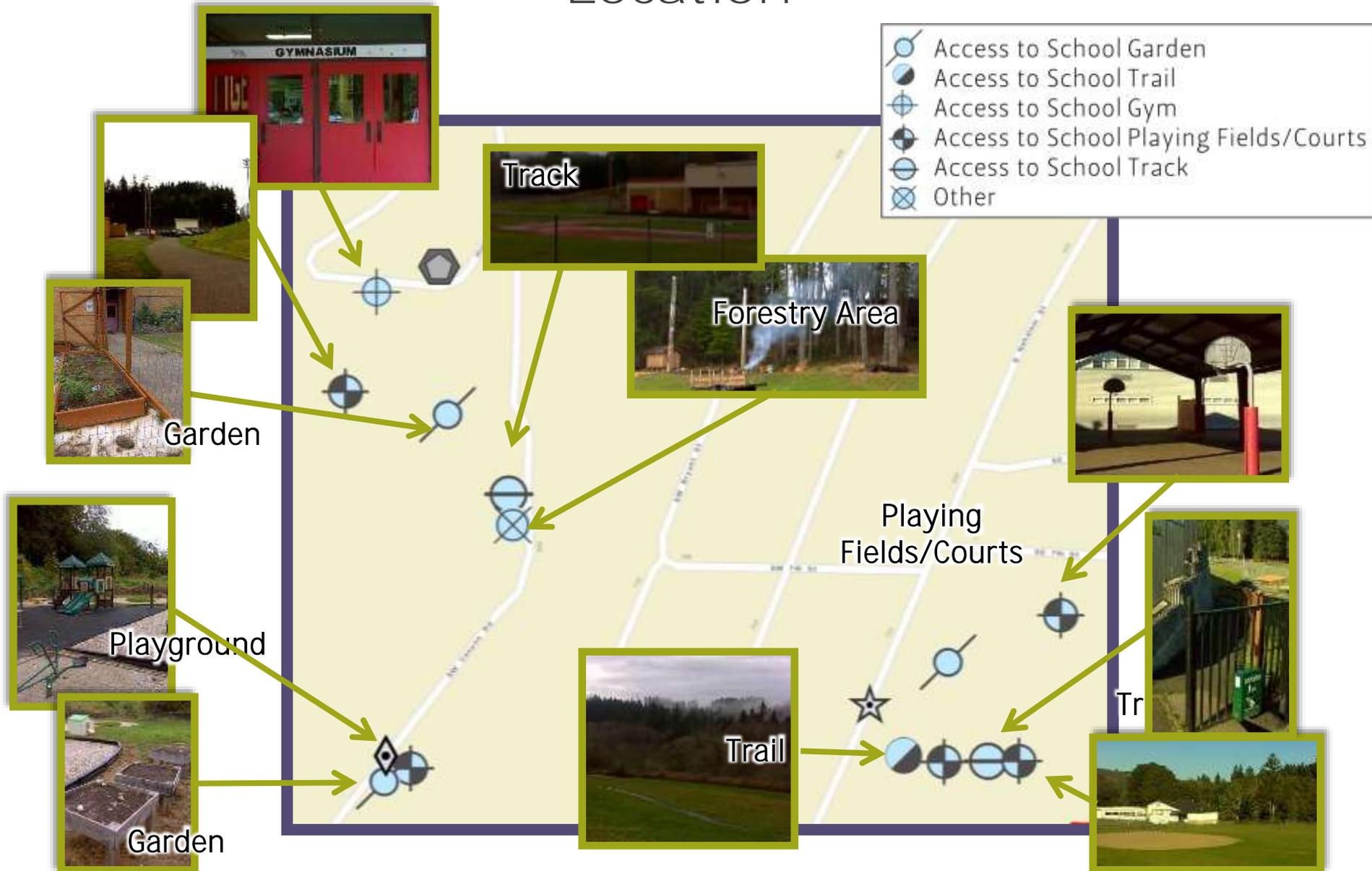
There are 10 "Other PA" resources located within city limits. These are mostly outdoor resources, the two indoor resource area fitness and recreation centers. Clatskanie added a new equipment check out program since the original audit.

# Change in Resources for School Physical Activity Access

The school district allows public access to Gardens, Gyms, Track, Playgrounds, and various Sports/Playing Fields and Courts and has added further access to school gardens and a trail at the elementary school, as well as the high school track and forestry area.



# Resources for School Physical Activity Shown by Location



# 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 Clatskanie 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

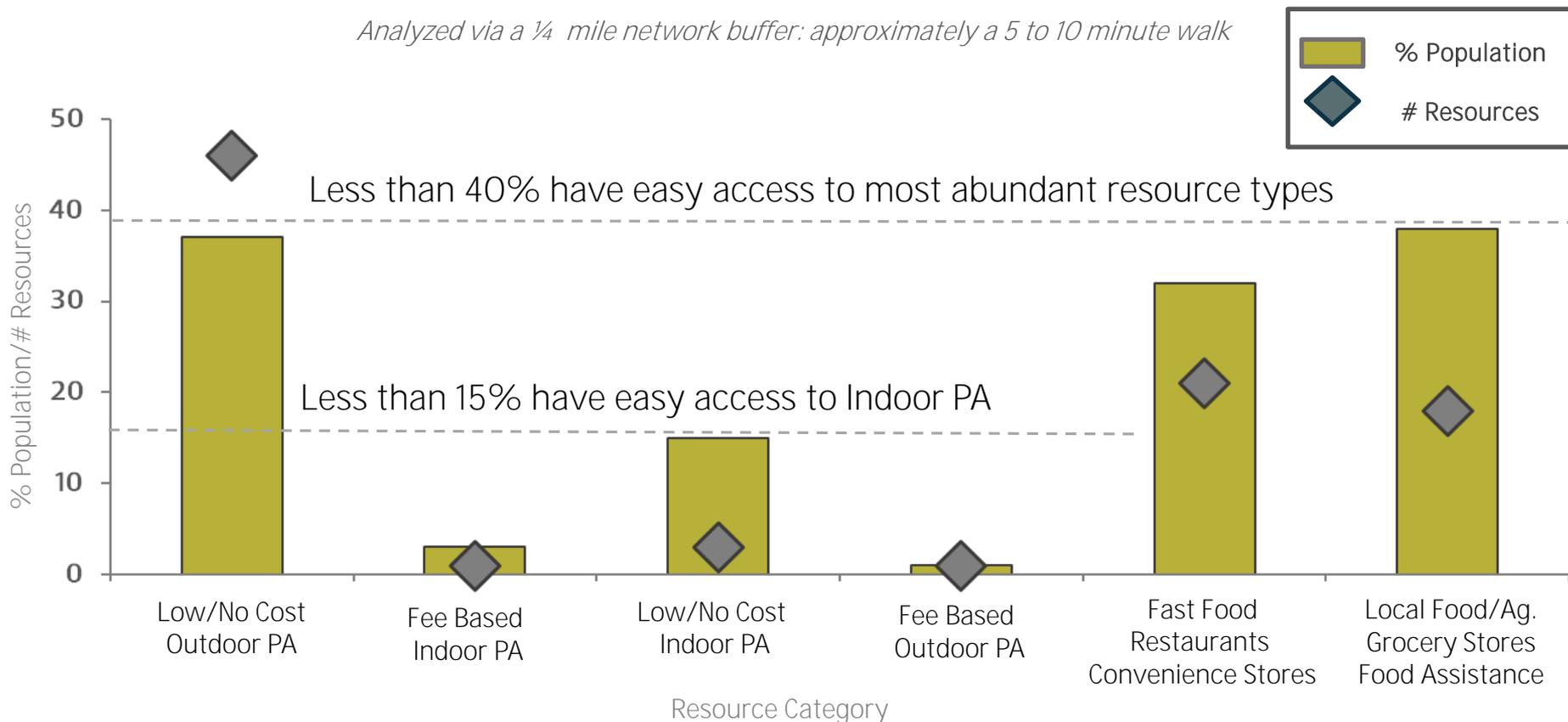
Golf Courses  
Equestrian centers  
Exercise/Fitness centers

## Local Agriculture

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

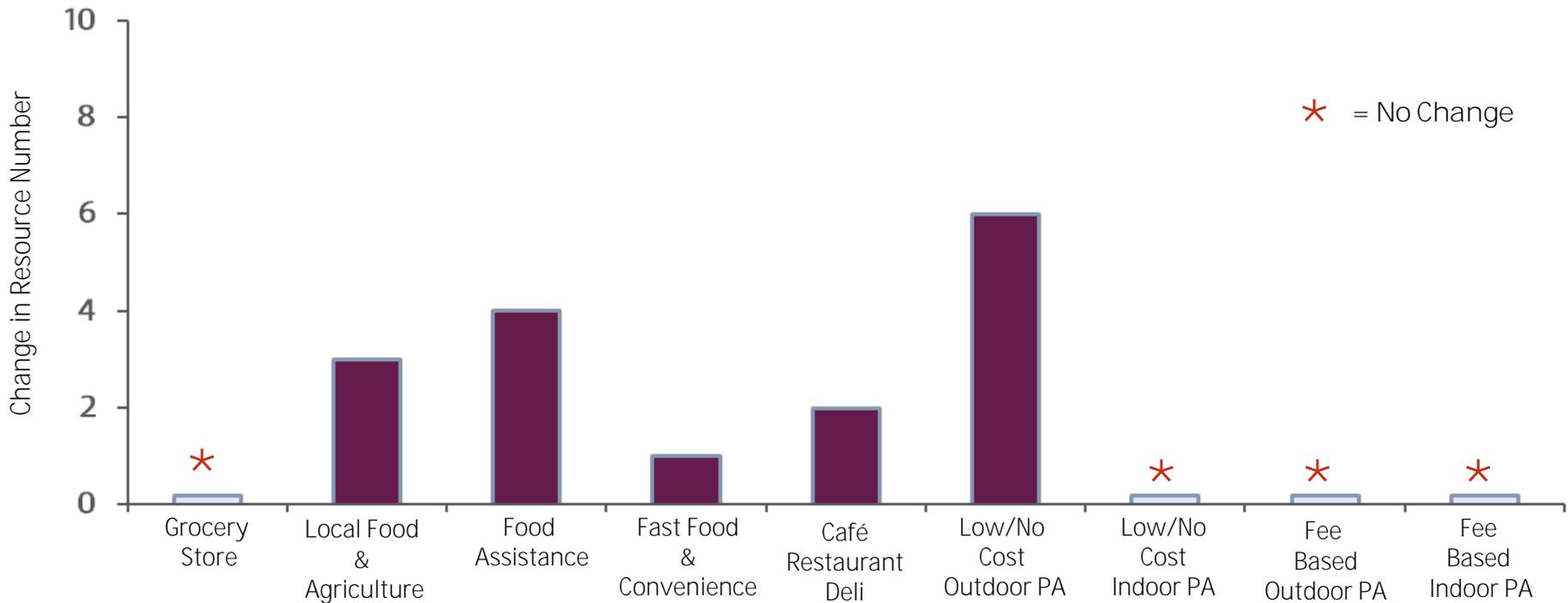
# Ease of Access to Food and Physical Activity Resources

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



Clatskanie's ease of access to resources remained relatively stable with some nominal changes: a 3% increase in access to resources in the Local Food/Food Assistance/Grocery Stores category. Still, less than 40% have “easy” access to these resources and only about 13% have access to Indoor PA resources. Even though six new resources were added in the Low/No Cost Outdoor PA category, they were added at pre-existing resources (the schools), and as such offered no increase in spatial access.

# Change in Number of Food and Physical Activity Resources

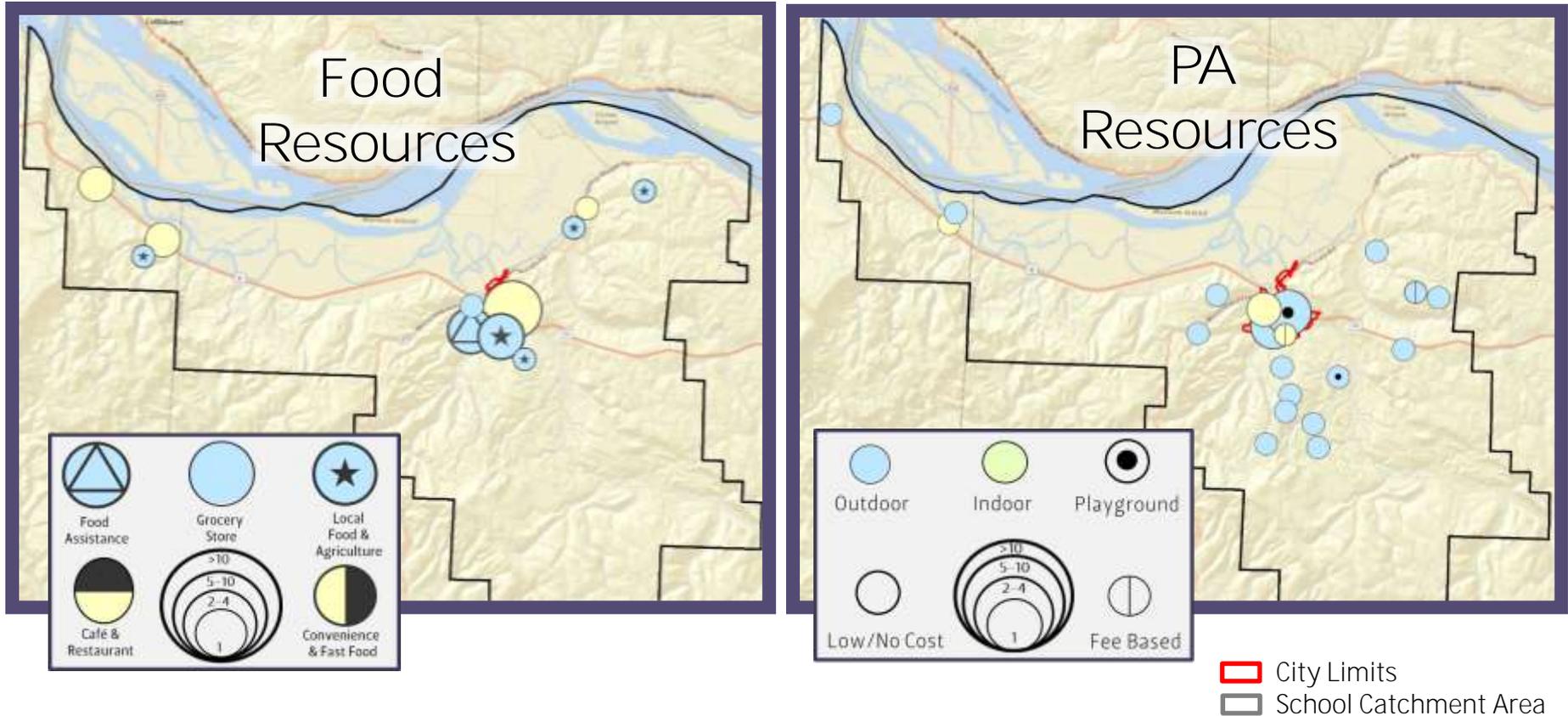


There were no changes in the number of grocery store resources in Clatskanie. However, food resources were added in the form of a **farmer's market**, **community meals at the senior center**, access to school gardens, new (or not previously audited) summer lunch program sites, a fast food restaurant as well as two new Café/Deli/Restaurants. There were no changes in any PA category except Low/No Cost Outdoor PA, where the school district added community access to a number of school resources.

PA=Physical Activity

# 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 mainly located within city limits, leaving those who live in more rural areas without easy access. Supports need to be affordable and accessible from where people live and work.