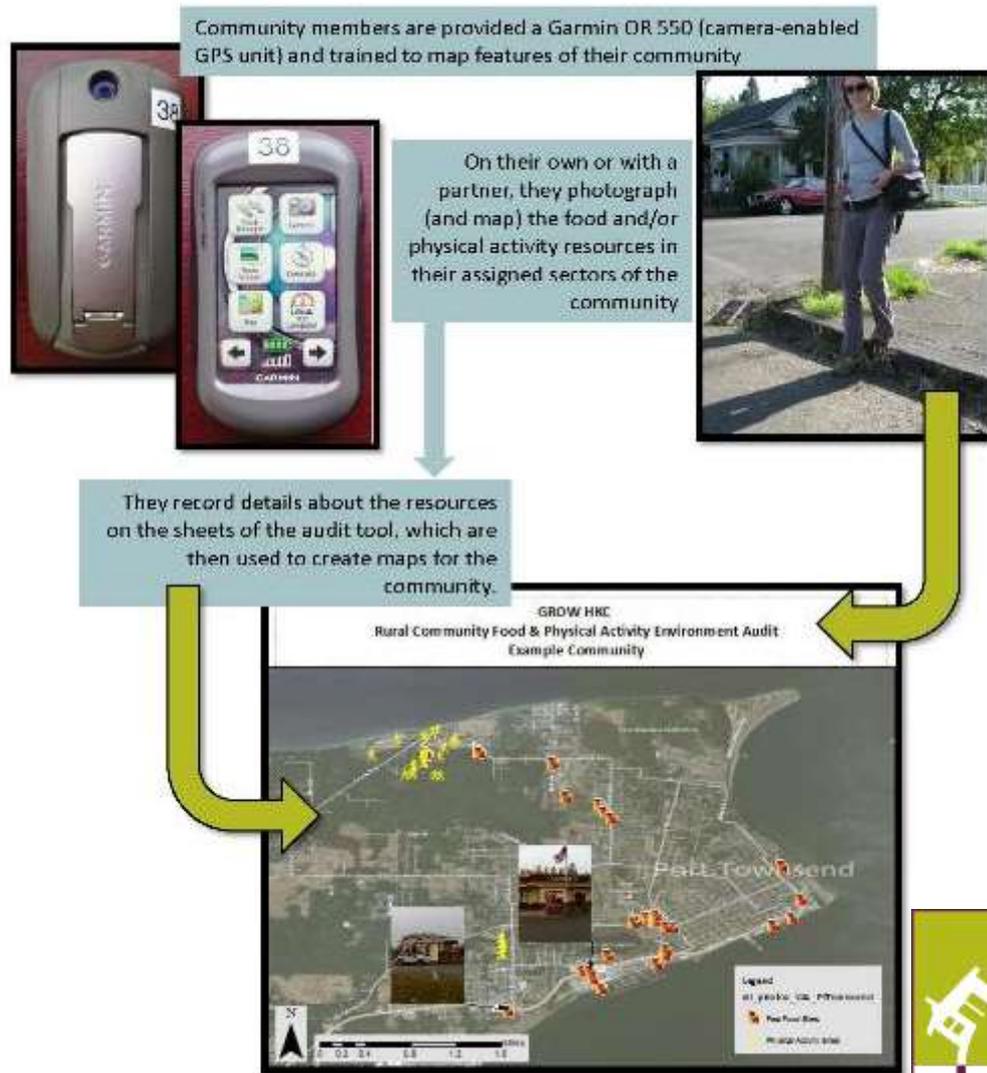


# Rural Community Food and Physical Activity Environment

## Rainier Audit Results Maps 2014



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.

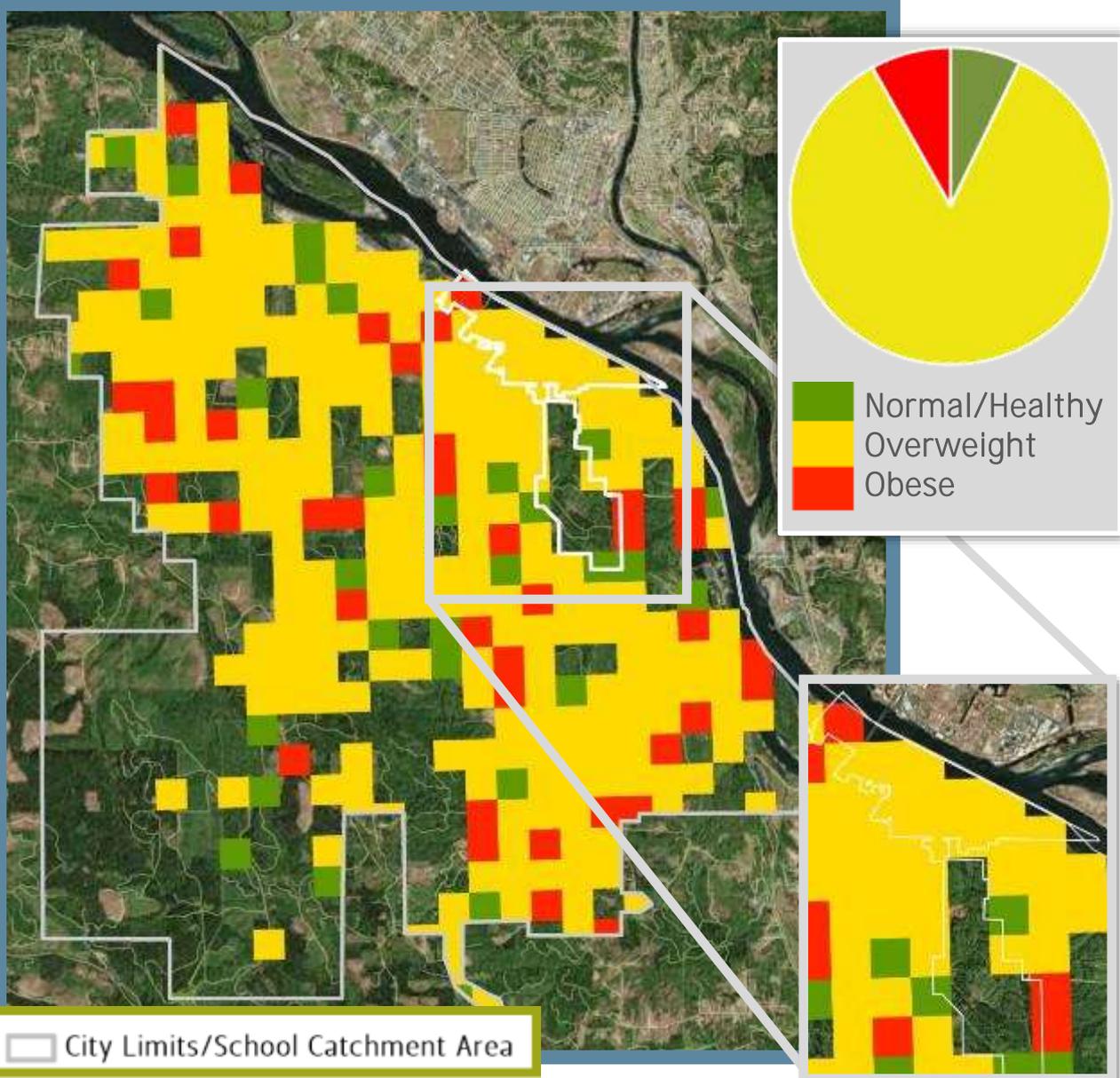
# Rurality and Weight Health



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

# Rainier Community - Adult Weight Health (BMI)



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

## Adult Body Mass Index (BMI)

- 7% Healthy (BMI 18-24.9)
- 84% Overweight (BMI 25-29.9)
- 8% Obese (BMI >30)

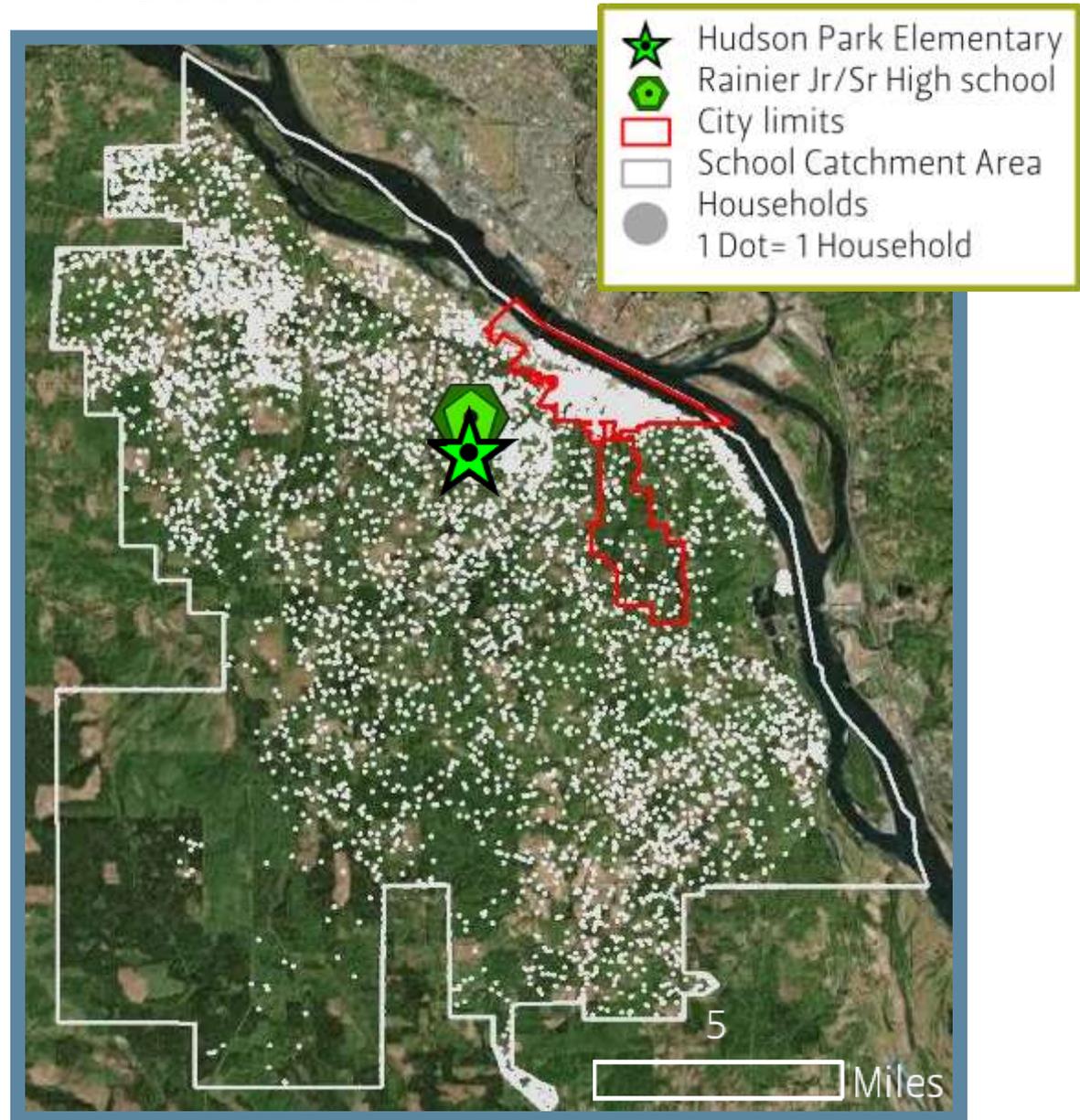
\*DMV records used to calculate BMI reliably illustrate the BMI distribution despite underestimation

# Where people live matters for easy access to resources

Community boundaries include the School District Catchment for 2 schools and city limits

Rainier Includes 8227 people living in 3524 households (2010 census) spatially dispersed in an area of about 250 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

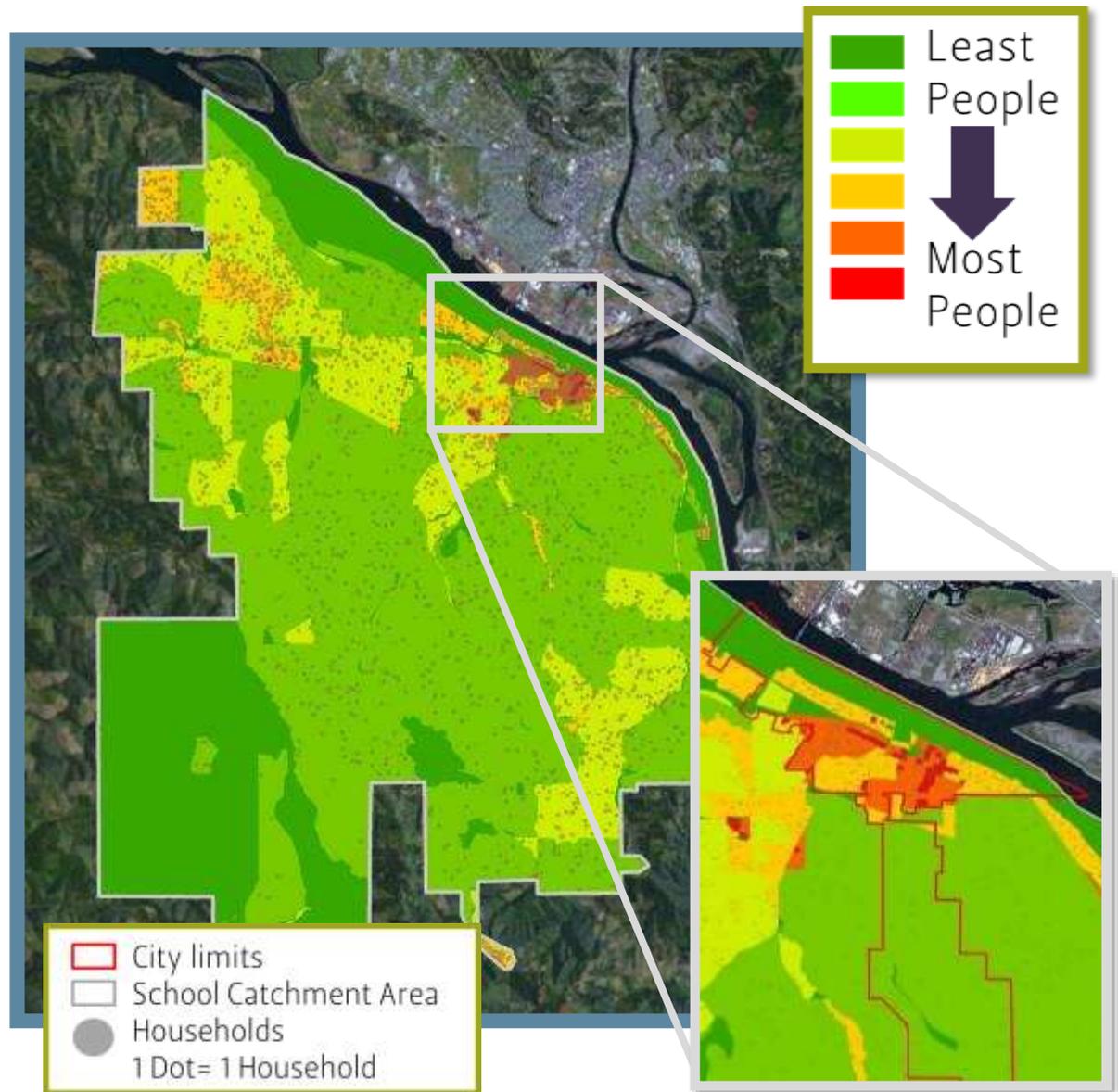


# Using Maps to Show Where Most People Live...

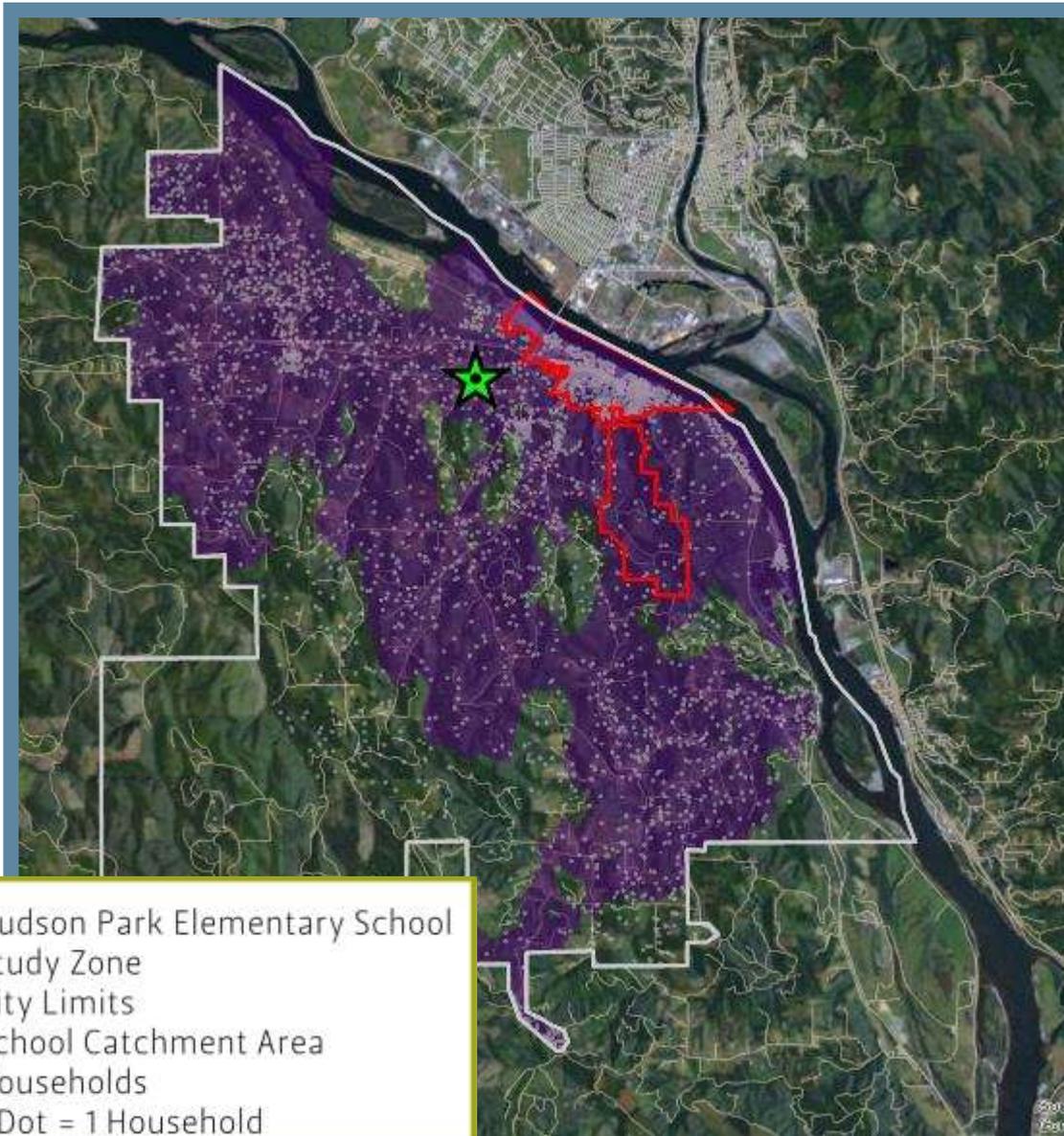
Within audit boundaries, we calculated statistically significant clusters of population based on population density

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; Rainier 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 96% of Rainier’s population

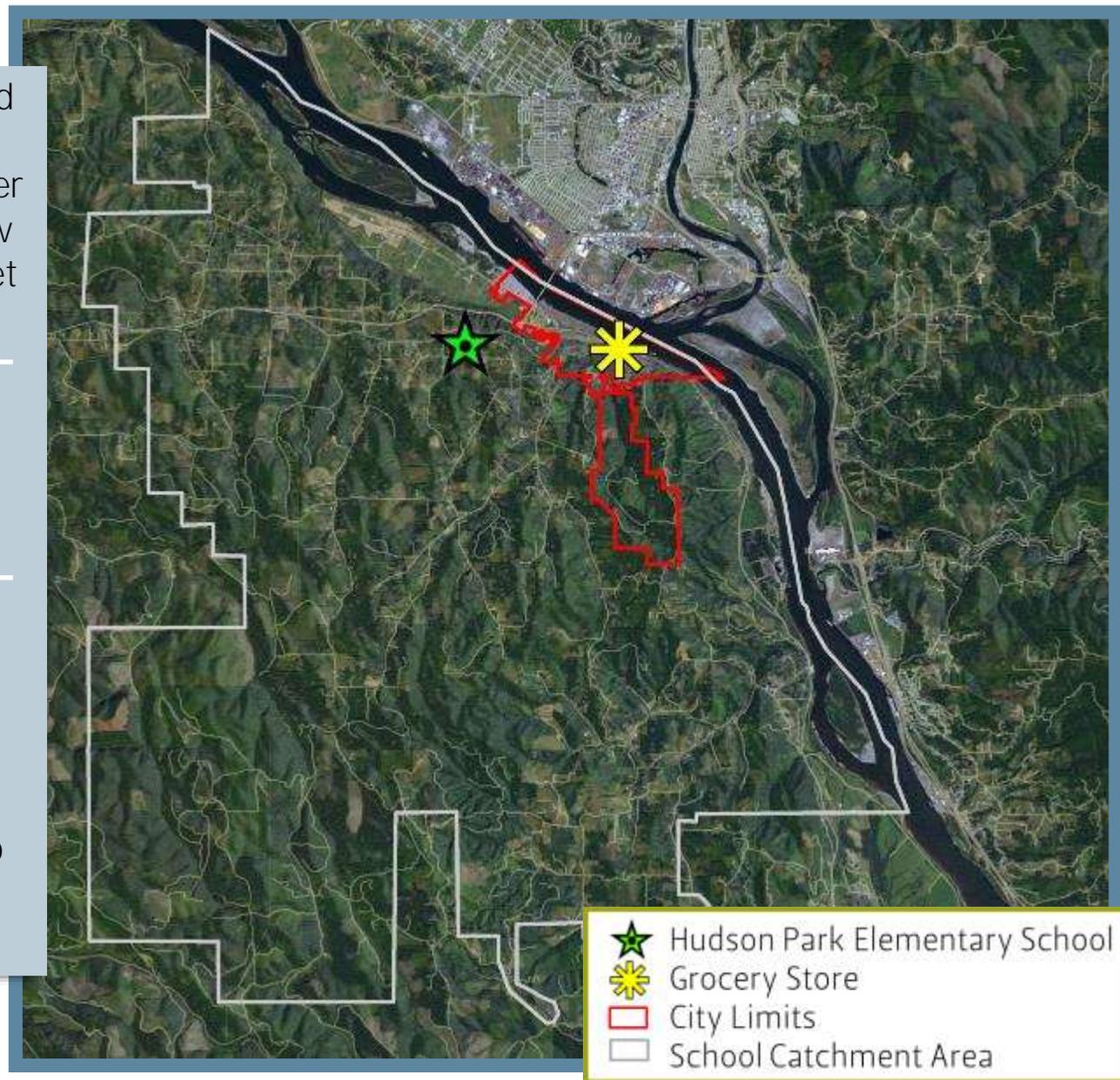
Defining the study zone helped limit time and travel distance for Rainier community members who mapped resources and collected survey data, while not limiting the ability to capture data that is important to the community.

# Grocery Store Locations

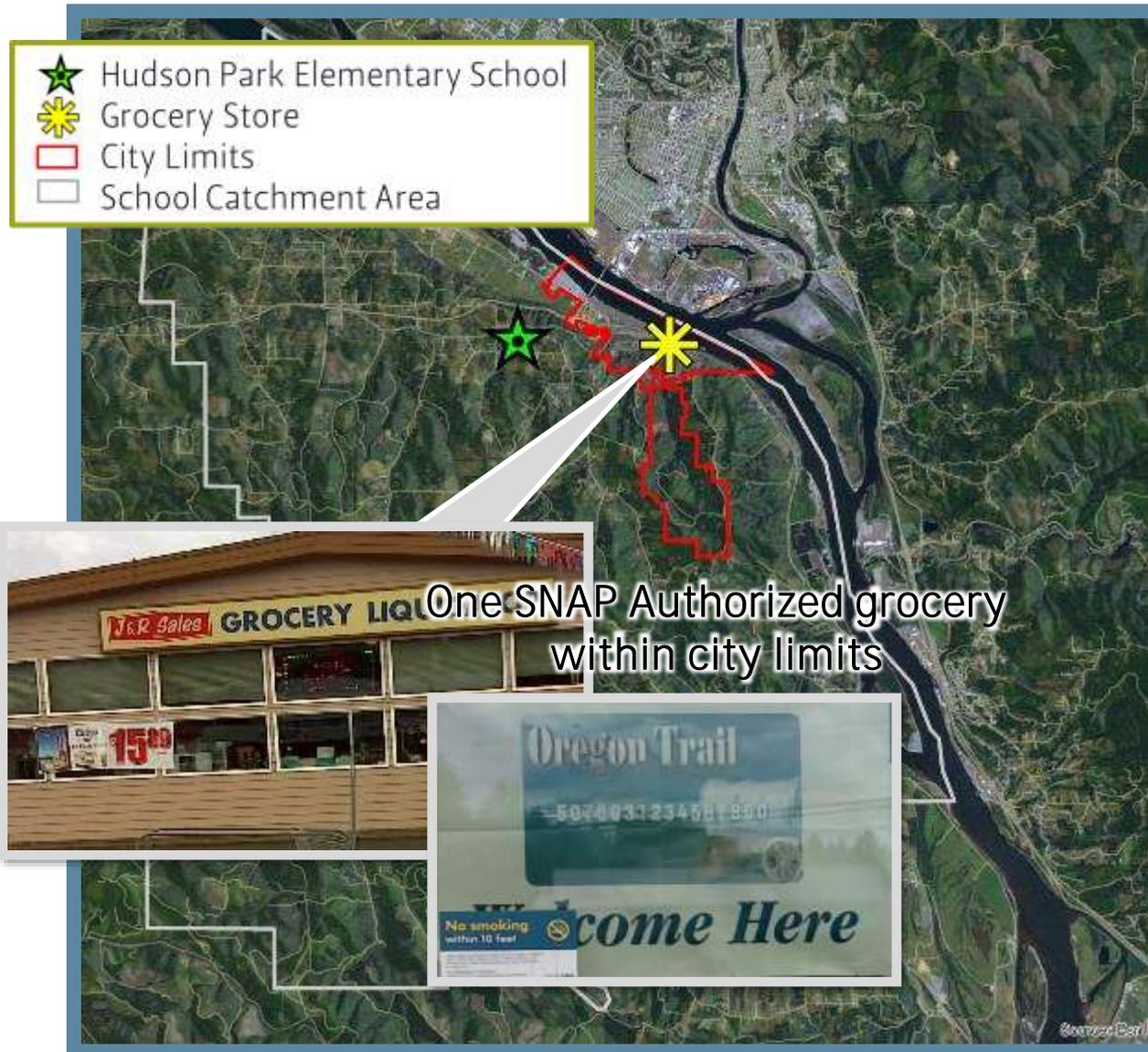
According to the Healthy Food Financing Initiative, a food desert is an area where a larger proportion of people have low or no access to a supermarket or grocery store

Rainier has a small bargain outlet style grocery store in town. However, it is still considered a food desert.

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



# Resources for Groceries Shown by Location



The J&R Grocery Liquidator is a “bargain outlet” type store located within city limits and it is one of two SNAP retailers in Rainier

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

Limited access to affordable fresh produce is a barrier to healthy eating for people living in Rainier

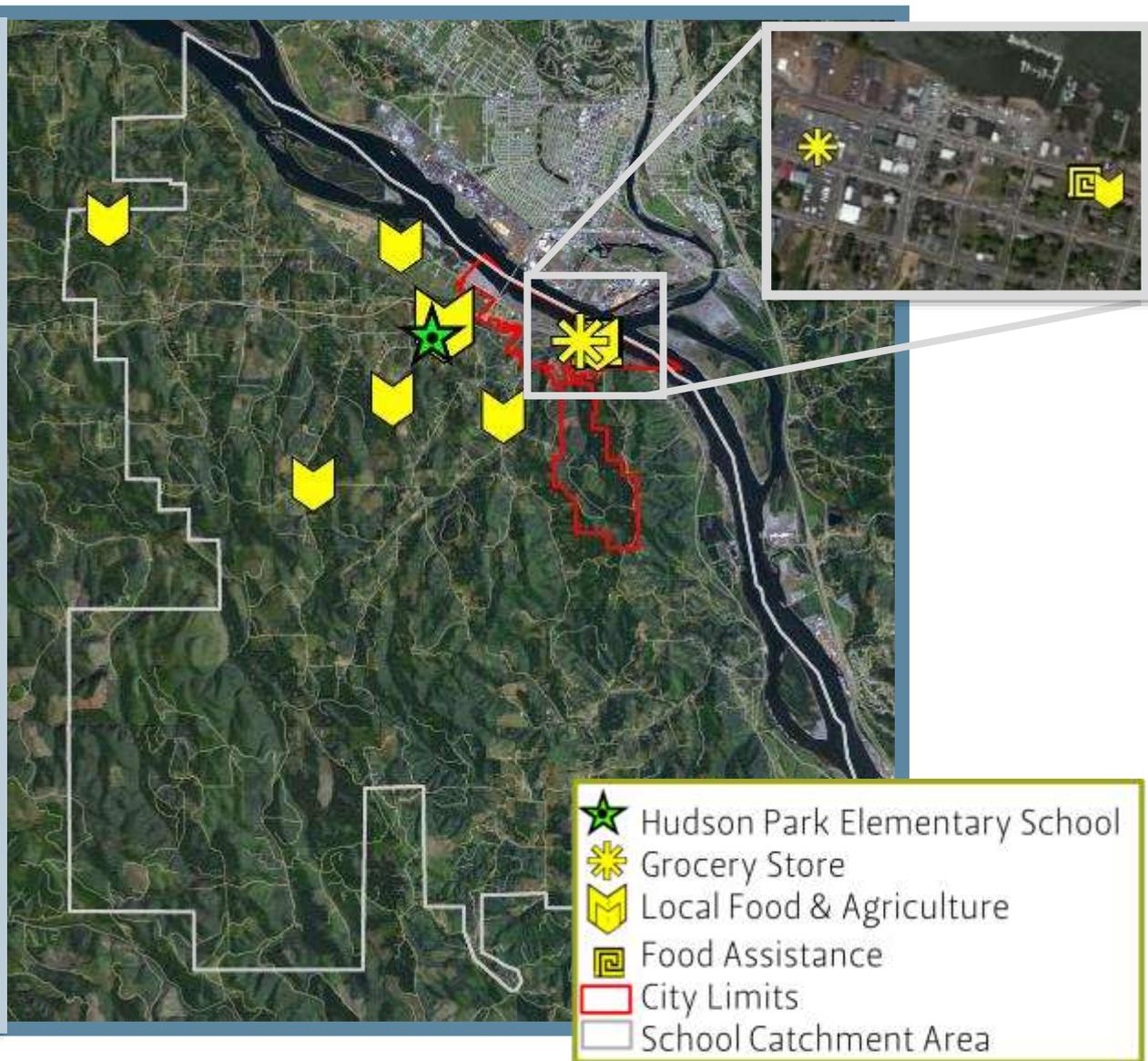
The closest supermarket or full service grocer is located 17 miles away, in Longview WA. Meaning, grocery access is car dependent, and some form of transportation is needed to shop for food

# Local Food, Agriculture, & Food Assistance

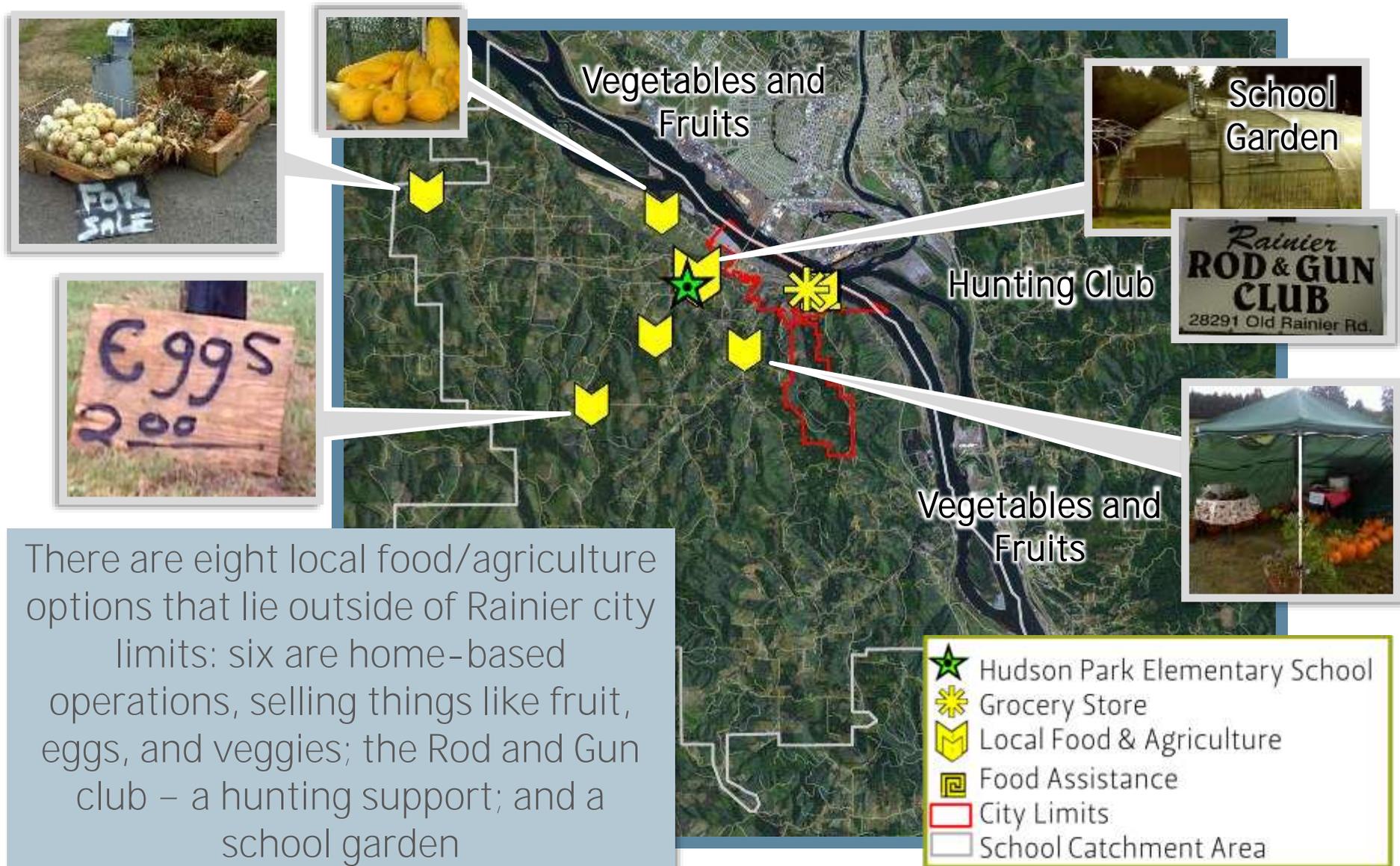
Rainier has a number of “Local Food, Agriculture, and Food Assistance” resources

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



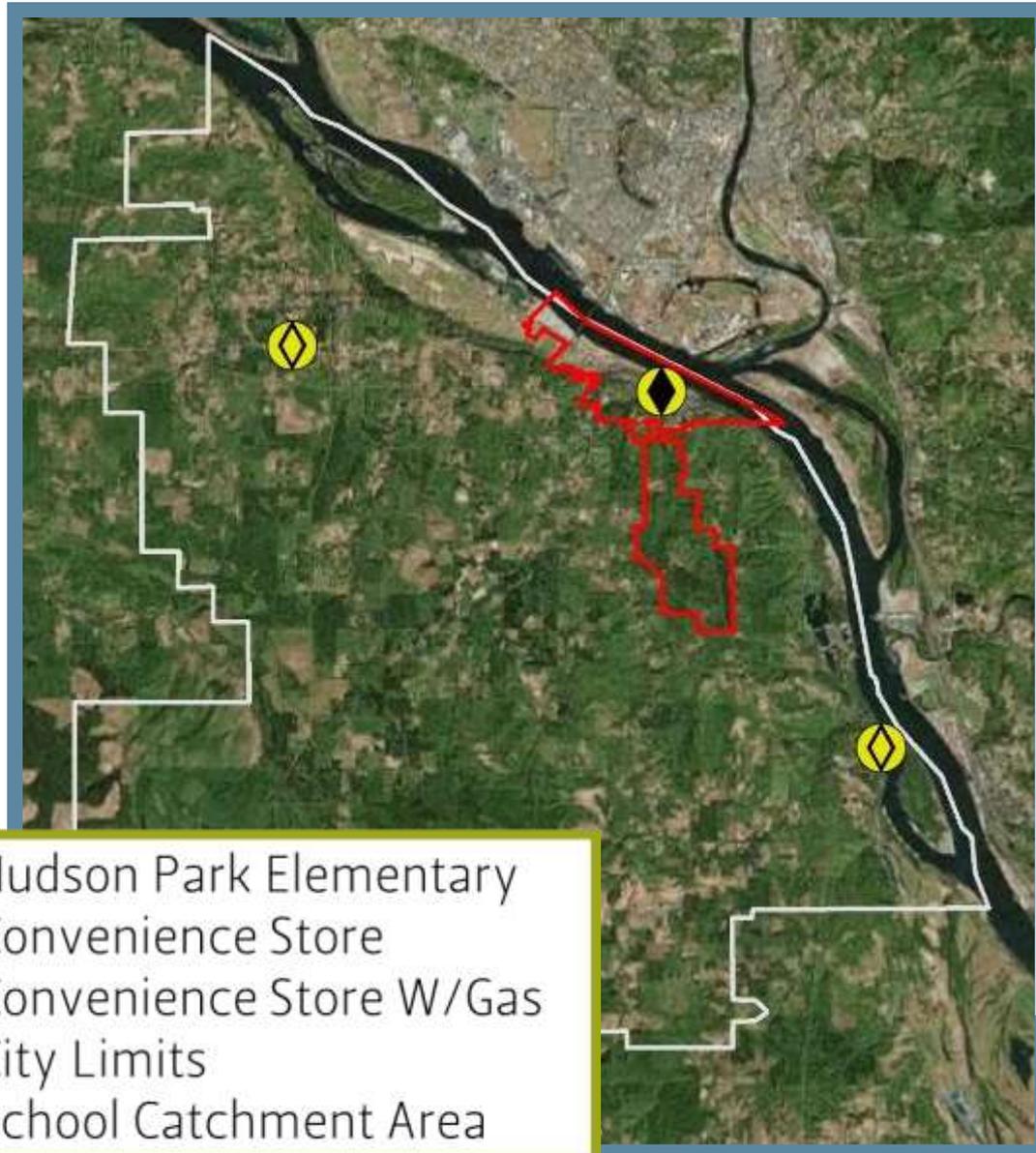
# Resources for Local Food, Agriculture & Food Assistance Shown by Location

Rainier has a community garden and a food bank/pantry both at the same location (HOPE) within city limits. HOPE not only offers emergency food assistance, but also a variety of programs that assist community members in supplementing their food supplies.



- ★ Hudson Park Elementary School
- ☀ Grocery Store
- 📖 Local Food & Agriculture
- 🏠 Food Assistance
- 📏 City Limits
- 🏠 School Catchment Area

# Convenience Stores



Rainier has three convenience stores, two located outside city limits and one located within

Rainier's "Modified Retail Food Environmental Index" score was 0. 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

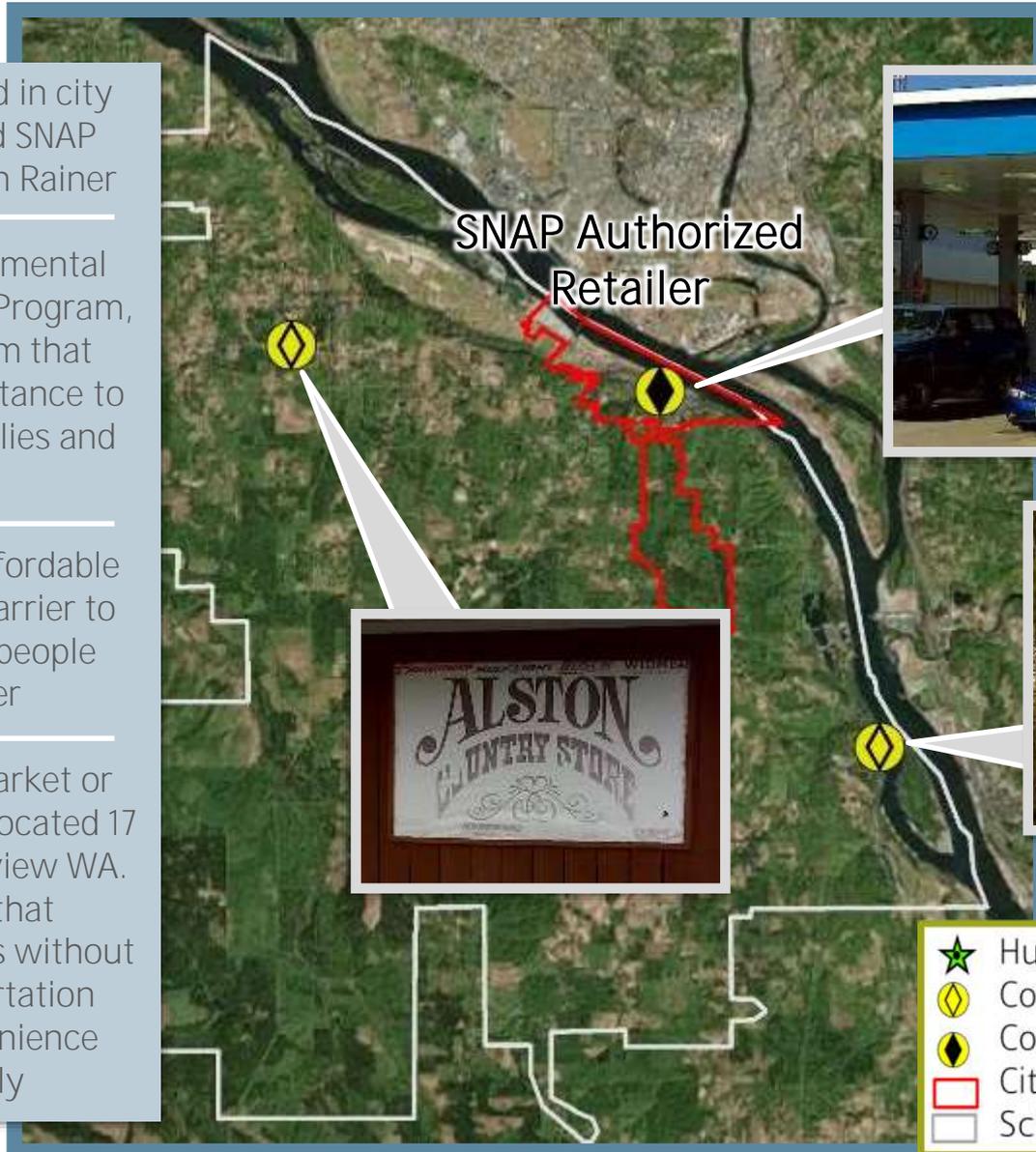
# Resources for Convenience Stores Shown by Location

The Chevron located in city limits is the second SNAP authorized retailer in Rainier

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

Limited access to affordable fresh produce is a barrier to healthy eating for people living in Rainier

The closest supermarket or full service grocer is located 17 miles away, in Longview WA. Making it likely that community members without access to transportation utilize these convenience stores regularly



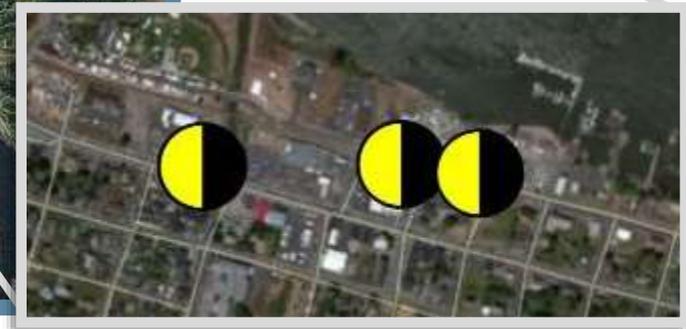
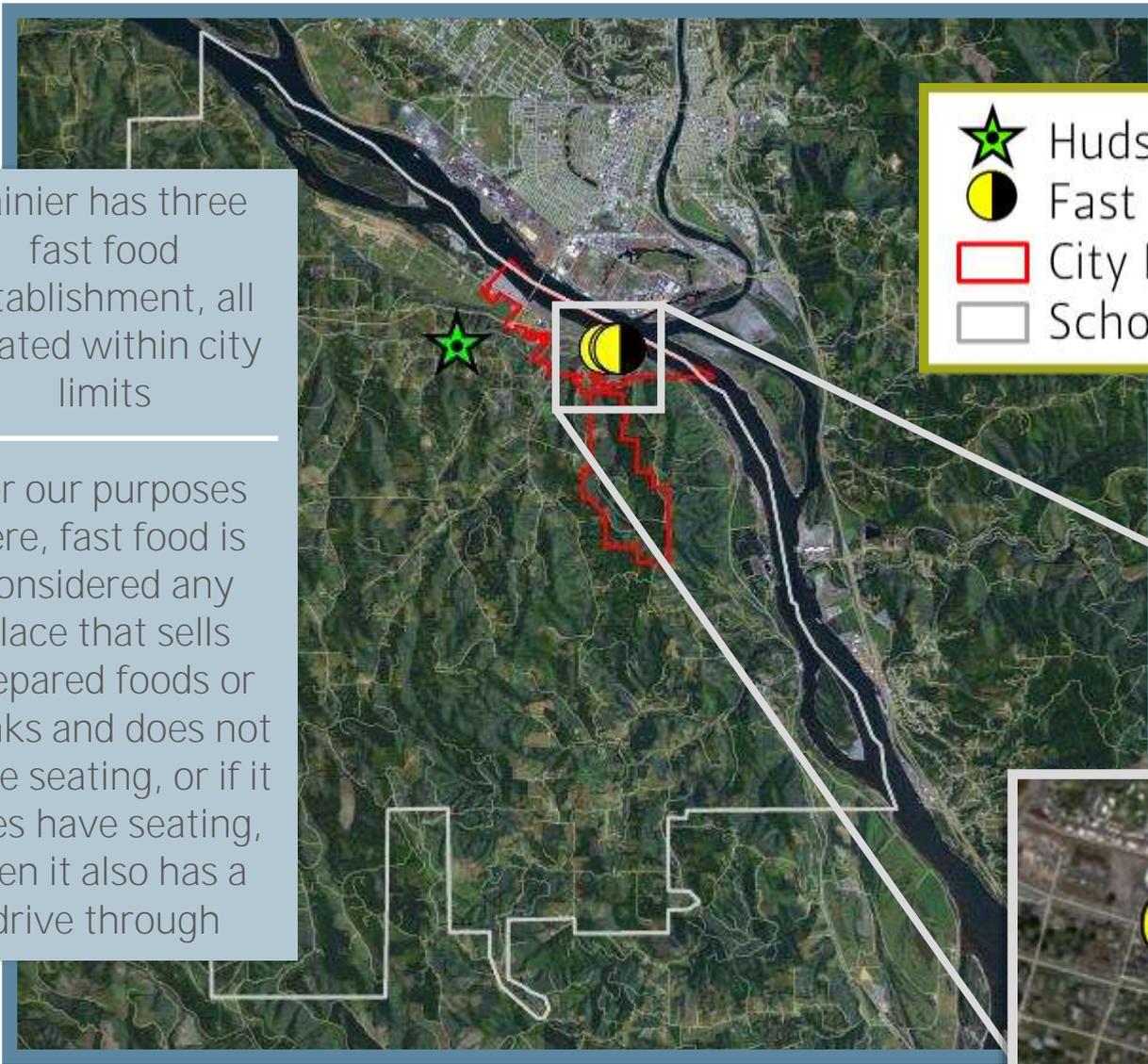
- ★ Hudson Park Elementary
- ◇ Convenience Store
- ◇ Convenience Store W/Gas
- City Limits
- School Catchment Area

# Fast Food

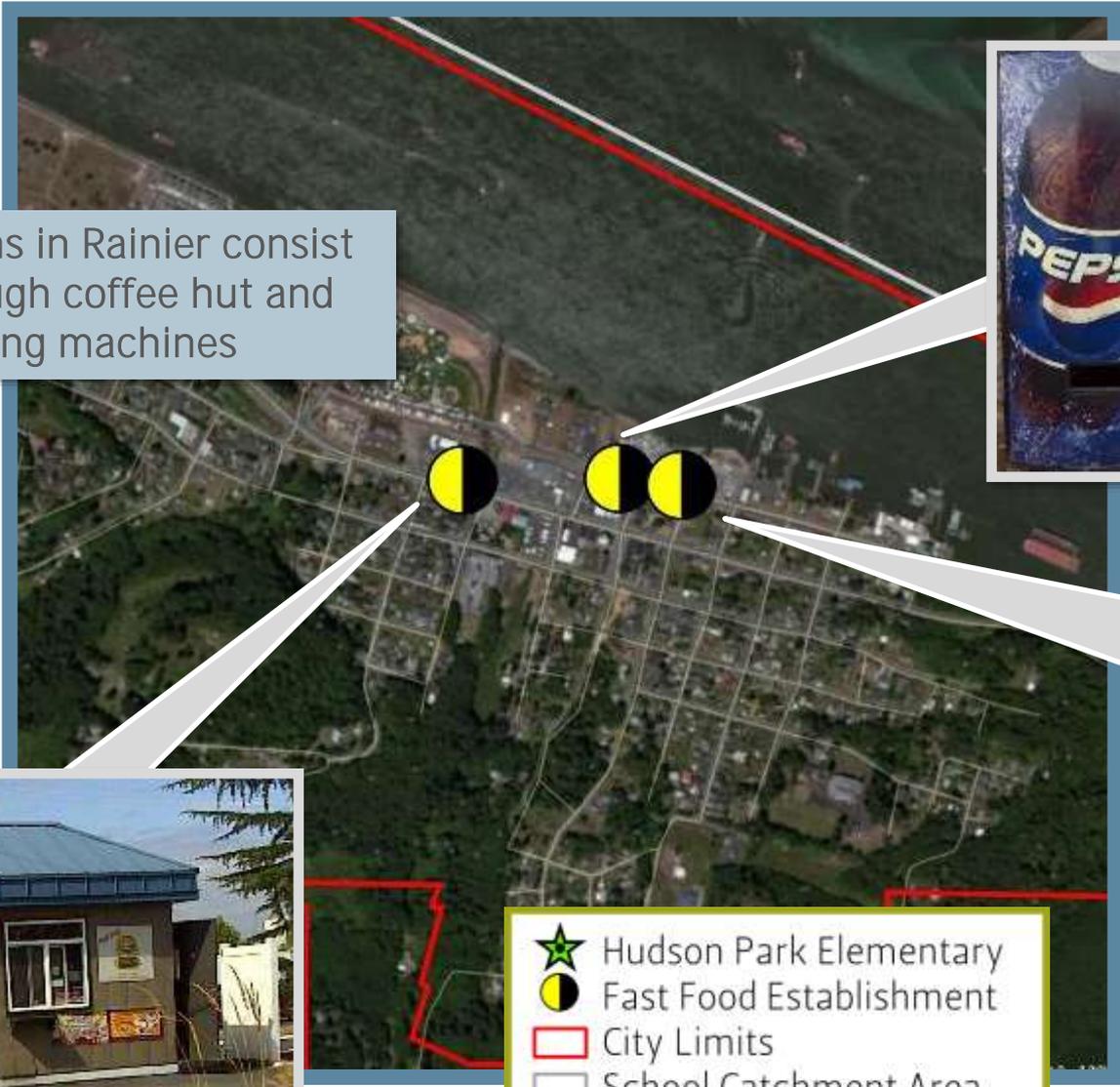
Rainier has three fast food establishments, all located within city limits

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

- ★ Hudson Park Elementary
- Fast Food Establishment
- City Limits
- School Catchment Area



# Resources for Fast Food Shown by Location

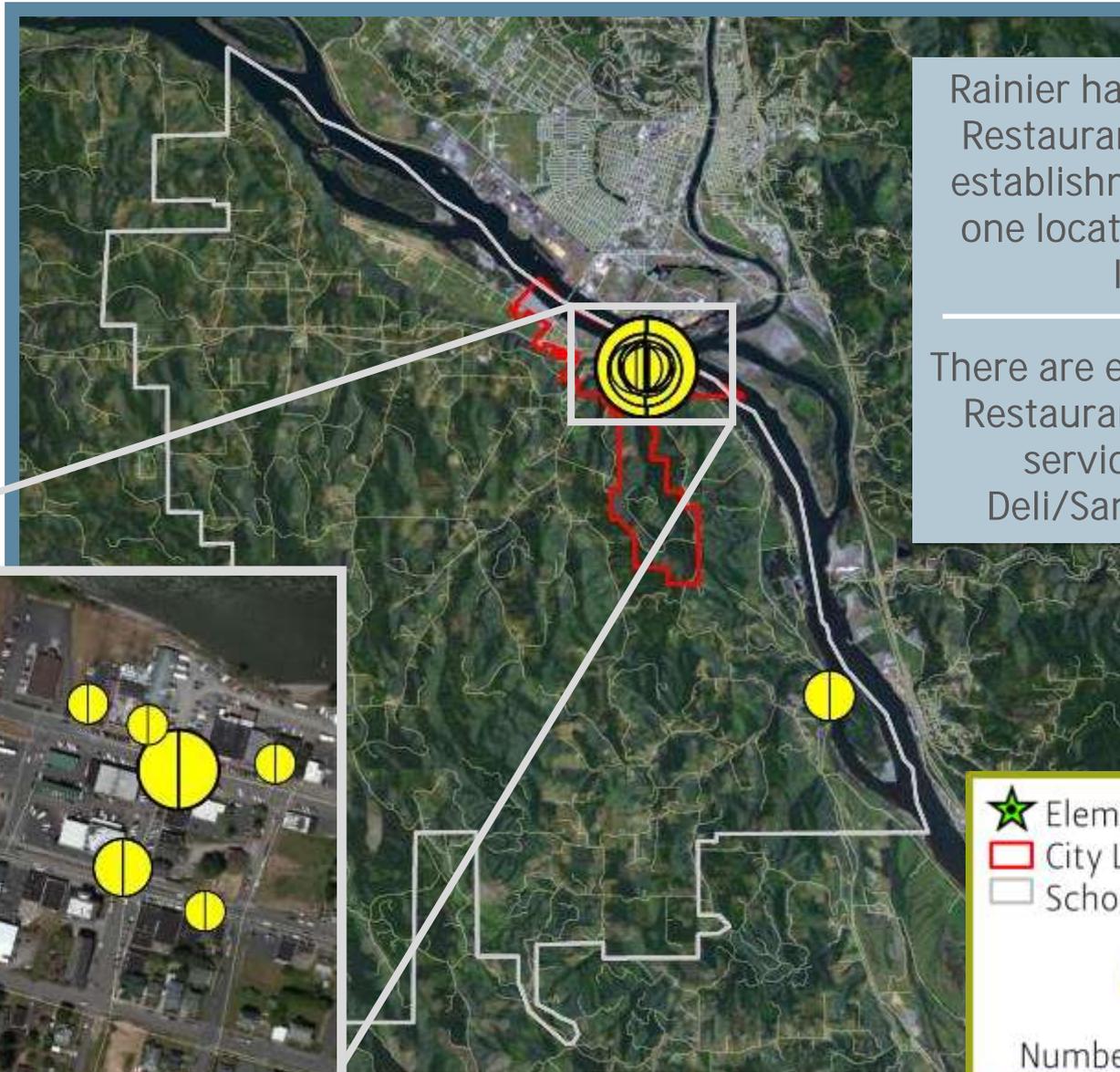


Fast Food options in Rainier consist of a drive through coffee hut and two vending machines



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

# Cafés, Delis, and Restaurants



Rainier has 12 Café, Deli, Restaurant type eating establishments – all but one located within city limits

There are eleven Sit-down Restaurants with table service and one Deli/Sandwich Shop



# Resources for Cafés, Delis, & Restaurants Shown by Location

Rainier's dining establishments offer Mexican, Pizza, Deli/Sandwiches, and Chinese options to name a few

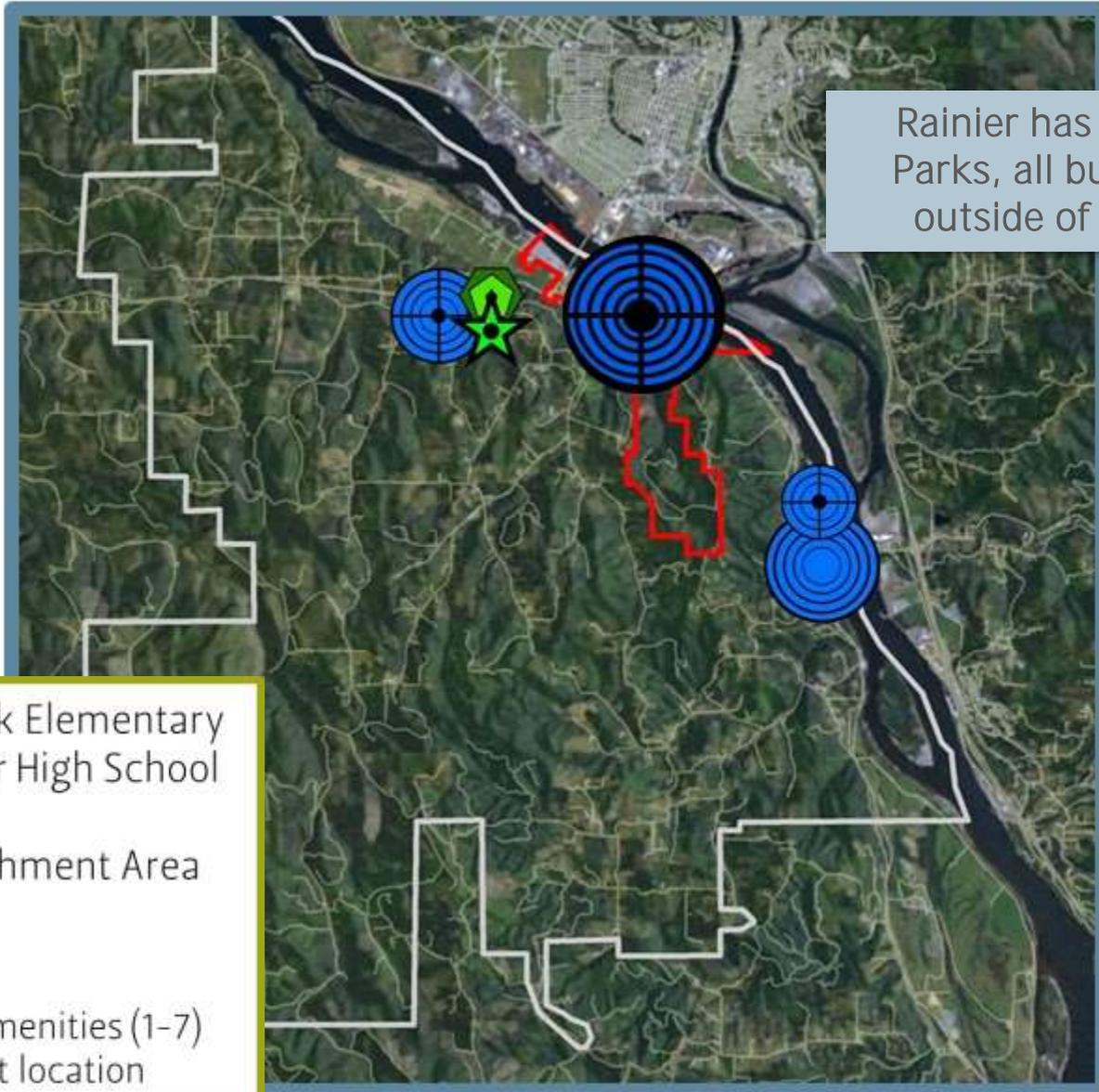


Not shown here: Globe tavern located 6 miles east of city limits

# Public Parks

Rainier has four Public Parks, all but one lying outside of city limits

- ★ Hudson Park Elementary
- ⬢ Rainier Jr/Sr High School
- ▭ City Limits
- ▭ School Catchment Area
- Public Park
- ⊕ Fees
- ⊙ Number of Amenities (1-7)
- Playground at location



# Resources and Amenities for Public Parks Shown by Location

Picnic Shelter, Dog s on leash, Disc Golf course, Playground, Beaches/Waterways Sports/Playing Fields and Courts, Skate park, Restrooms

Rainier Riverfront Park is a city park located within city limits. The park has a variety of amenities to enable many outdoor activities: swimming, boating, dog walking, playing a variety of sports, and skateboarding. There are some fees associated with parking and boating



-  Hudson Park Elementary
-  Rainier Jr/Sr High School
-  City Limits
-  School Catchment Area
-  Public Park
-  Fees
-  Number of Amenities (1-7)
-  Playground at location

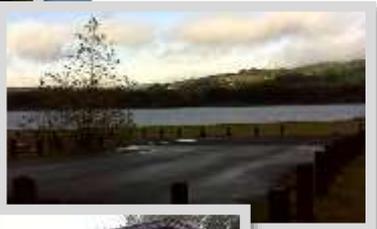
# Resources and Amenities for Public Parks Shown by Location



Hudson-Parcher Park



Prescott Beach Park



Trojan Park



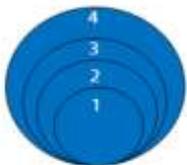
Rainier Has three Public Parks that lie outside of city limits: Trojan Park, run by Portland General Electric, offers Disk Golf, Fishing, Sports Fields and Picnic Shelters. The other two parks are run by Columbia County and offer a variety of amenities: Playgrounds, Sports Fields/Courts, Beaches/Waterways and Picnic Shelters. The two county parks have day use fees or fees for camping/cabin rentals or shelter reservations.

# Other Physical Activity Resources

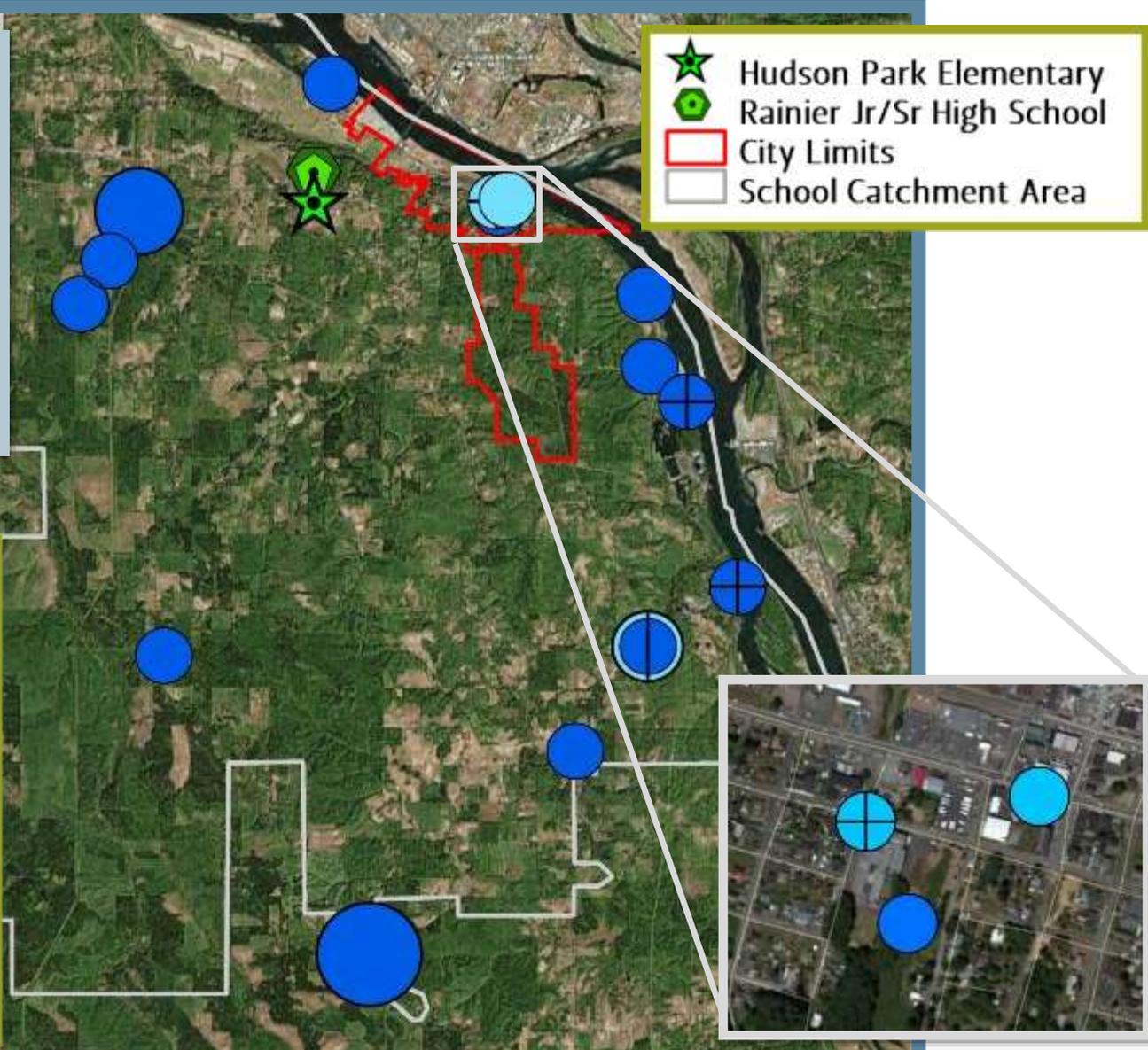
Rainier has a variety of other physical activity resources (19 in total) including indoor and outdoor options for recreation, the majority of which lie outside of city limits.

- ★ Hudson Park Elementary
- ⬢ Rainier Jr/Sr High School
- ▭ City Limits
- ▭ School Catchment Area

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



Number of Resources



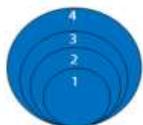
# Resources for Other PA Shown by Location

Resources consist largely of trails or logging roads on private timber land – which may be closed due to fire danger or logging activities

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

Within city limits there are two indoor physical activity or healthy education options. One is the community owned recreation center that offers classes to the public for a fee and the other is the education programs offered by the Child and Family Development program. Rainier also has a free outdoor option: the Fox Creek Trail.

\*PA=Physical Activity

Riverside Community Church

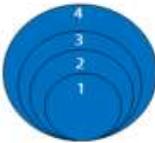
Head start, health and parenting education



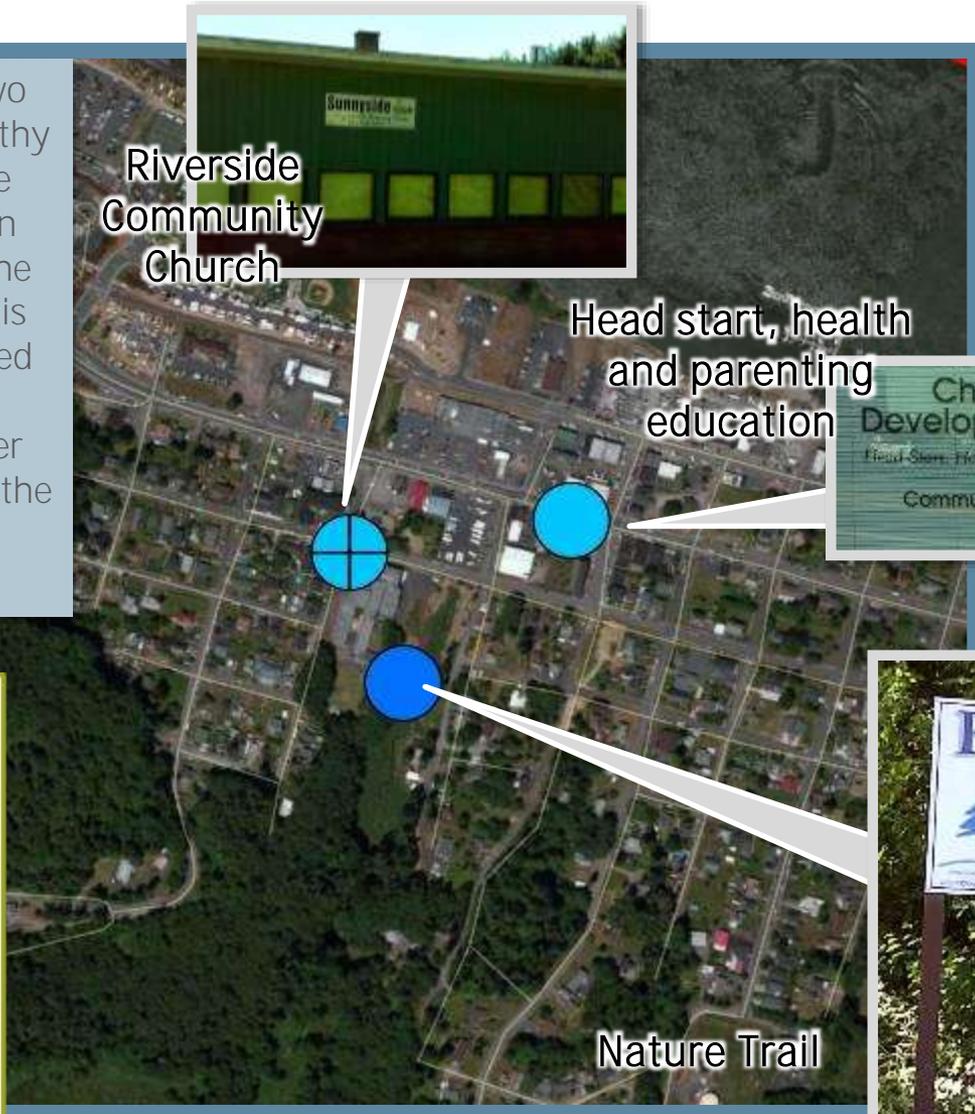
Nature Trail



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



Number of Resources



# School Physical Activity Resources

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



- ★ Hudson Park Elementary
- ⬡ Rainier Jr/Sr High
- ★ School Garden
- ⊕ School Gymnasium
- 🎯 School Fields/Courts
- ⊗ School Pool
- ⬇️ School Track

# School Physical Activity Resources

- ★ Hudson Park Elementary
- ⬡ Rainier Jr/Sr High
- ★ School Garden
- + School Gymnasium
- ⊙ School Fields/Courts
- ⊗ School Pool
- ⬢ School Track

School Track



School Garden

School Gym

The school hopes to use the garden plot to supplement school meals with fresh veggies



School Sports Fields



# 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 Rainier 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

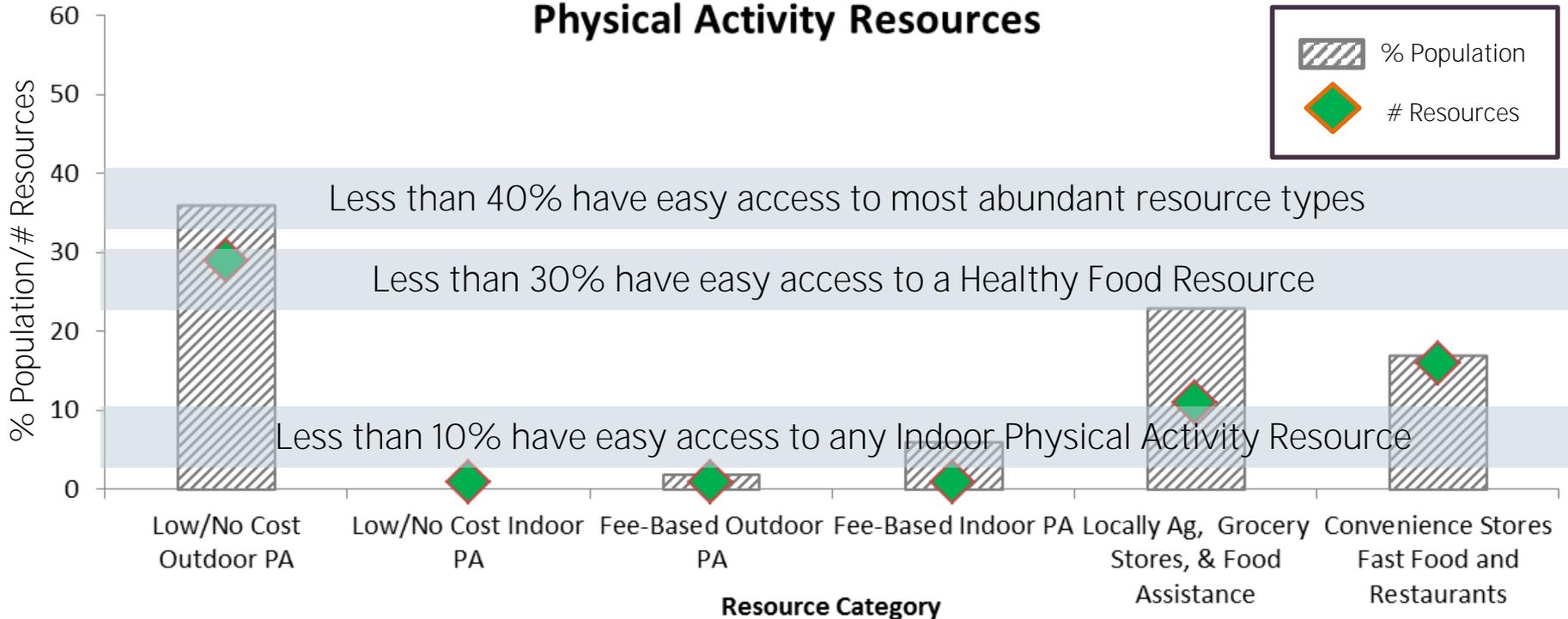
## Fee-Based PA Resources

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 Rainier 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.

