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.

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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.
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.
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

- Mean BMI at Census Block Group Level

Mean BMI at School District Level

- 31%
- 32%
- 37%

*2014 DMV records used to calculate BMI reliably illustrate the BMI distribution despite underestimation
Where People Live Matters for Easy Access to Resources

Within the School District Boundary, Rainier has 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.

Community Boundaries Include the Approximate School District Catchment Area (“School District Boundary”) for Two Schools and Rainier City Limits
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 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.

Defining the study area 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.
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/growhkc/outputs/maps
Rainier has a small bargain outlet style grocery store in town. However, it is still considered a food desert.

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.

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).
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.
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
There are eight local food/agriculture options that lie outside of Rainier city limits: six are home-based operations, selling things like fruit, eggs, and veggies; there’s also the Rod and Gun club – a hunting support; and a school garden.
Rainer 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 offers a variety of programs that assist community members in supplementing their food supplies.
Rainier has four convenience stores as well as four fast food establishments. Both a new fast food establishment and a new convenience store were added since the original audit. 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.

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.
There are two convenience stores outside of city limits. As the closest supermarket or full service grocer is located 17 miles away, in Longview WA, it is likely that community members without access to transportation utilize these convenience stores regularly.
The Chevron located in city limits is the second SNAP authorized retailer in Rainer. 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.
Change in Resources for Cafés, Delis, and Restaurants

Rainier has 14 Café, Deli, Restaurant type eating establishments – all but one located within city limits.

There are eleven Sit-down Restaurants with table service and three Deli/Sandwich Shop – two of these are new to the community since the original audit.
Resources for Cafés, Delis, & Restaurants Shown by Location

Rainier's dining establishments offer pub/tavern style, Mexican, pizza, deli, and Chinese dining options.
Rainier has three Public Parks, all but one lying outside of city limits. There were two changes in this resource category since the original audit: a new trail and volleyball court were added at Riverfront Park.
Rainier has two public parks that lie outside of city limits, both run by Columbia County, offering a variety of amenities: Playgrounds, Sports Fields/Courts, Beaches/Waterways, and Picnic Shelters. The two parks have day use fees or fees for camping/cabin rentals or shelter reservations.
Resources and Amenities for Public Parks Shown by Location

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, skateboarding and includes a new trail and volleyball court. There are some fees associated with parking and boating.
Rainier has more than 20 other physical activity resources, the majority of which lie outside of city limits and consist largely of outdoor options for recreation.
Resources for Other PA Shown by Location

Includes Amenities at public parks that have already been shown.

Resources consist largely of trails or logging roads on private timber land – which may be closed due to fire danger or logging activities – and beaches located on the Columbia river. PA options at these resources include Swimming, Hiking, Boating, Fishing, and Horseback Riding. *PA=Physical Activity
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 not previously mentioned: the Fox Creek Nature Trail as well as those located at River Front Park (see Public Parks Map).
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.
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
Rainier's ease of access to resources remained relatively stable with one nominal change: a 2% increase in access to resources in the Restaurant, Fast Food and Convenience Stores category. Less than 40% have easy access to the most heathy food sources, and only about 10% have access to Indoor PA resources. Even though two new resources were added in the Low/No Cost Outdoor PA category, they were added at a pre-existing resource (a public park), and as such offered no increase in spatial access.
Overall, there were no changes in the raw number of resources for Grocery Stores, Local Food/Agriculture, or Food Assistance. However, Rainier did add food resources in the form of two Delis and two Convenience Stores. There were no changes in any PA category except Low/No Cost Outdoor PA (two resources added at River Front Park). In terms of audited resources, Rainier lost no resources between the original and current audit.
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.