

Caliente, NV

HEAL MAPPS™

Community Report



This report was generated by Holly Gatzke¹, PhD, Courtney Coughenour², PhD, Anne Lindsay¹, MS, Deborah John³, PhD, and Kathy Gunter³, PhD, in partnership with Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC). The report includes data collected during the HEAL MAPPS™ processes and analyzed results provided to the Caliente Community to support the community's initiative to prevent childhood obesity.

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Caliente Community HEAL MAPPS™ Report

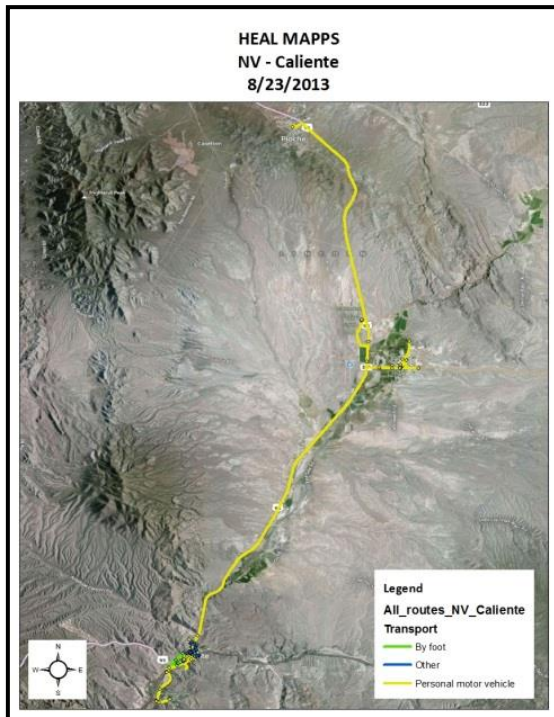
Caliente is a rural town located in the southern portion of Nevada and the only incorporated community in Lincoln County. This historic railroad town has a total area of 1.9 square miles and a population of about 1,320¹. The demographic profile of Caliente is 86.6% white, 1.3% black, 8.8% American Indian/Alaska Native, 1% Asian, 0.3% Native Hawaiian/Pacific Islander, and 11.5% Hispanic/Latino ethnicity. The median household income is \$24,695, which is lower than the national average of \$52,762. Caliente has a relatively high senior population with 18% of residents over 65 years of age.¹

Caliente has benefited in the last 5 years by receiving over six million dollars in grant funding for park improvements. Before this investment, the community lacked walkways, sidewalks and had poor access to old facilities. Unlike most high poverty rural areas, Caliente now has new ball fields, exercise paths, treed walkways and a new swimming pool being constructed. Before these improvements, it was unusual to see people walking a few blocks to work. However, this significant investment into quality recreation facilities has expanded community interest in physical activity, resulting in many community members becoming avid walkers and runners.

Caliente is part of a cluster of communities. There are two small towns, Panaca and Pioche, just 15 and 25 minutes respectively to the north. The middle and high schools, and their sports facilities, are located in Panaca. Pioche is the county seat and is where the DMV is located. The limited number of commercial stores is located in Caliente. The two towns and the city of Caliente combine to provide basic services for the residents in the area.

Caliente, nestled in a green valley in the high desert, is surrounded by extensive public land areas (BLM) that are used for recreation. One particular area, located just two miles south of Caliente, is Kershaw Ryan State Park inside of Rainbow Canyon. This park offers campgrounds, volleyball courts, a natural swimming pool and great hiking trails with American Indian petroglyphs hand carved by native peoples over 1500 years ago. There are four other state parks to the north which offer recreation activities like hiking, cycling and fishing.

¹ U.S. Census Bureau. (2010). Caliente Demographic Profile.



Generating Rural Options for Weight Healthy Kids and Communities (GROW HKC) is a USDA-funded, participatory childhood obesity prevention study conducted by Oregon State University's Extension researchers in partnership with rural residents and communities. GROW HKC and the Caliente community have partnered to map features of the local environment and discuss residents' perceptions of the community supports and barriers to regularly eating healthy and being physically active, particularly for children and families. Community members were mobilized and trained to use HEAL MAPPS™ (Healthy Eating Active Living: Mapping Attributes using Participatory Photographic Surveys), our community resource and readiness tool, to assess community resources for, and readiness to,

improve and implement healthy eating and physical activity supports – environmental and policy actions to make easier these obesity preventing behaviors.

HEAL MAPPS™ projects conducted in partnership with rural communities across several Western States (AZ, CO, NM, NV, OR, WA) will provide evidence and insights that will drive the development of a rural obesity prevention model. This model will be used as a framework for rural community actions aimed to promote healthy eating, physical activity behaviors, environments, and policies to prevent overweight and obesity among children and families.

The problem of obesity in children is in the forefront of nationwide research efforts and there are documented physical and mental health outcomes associated with childhood obesity that contribute to lifelong chronic health problems. These problems may disproportionately affect people living in rural places, as rural residency tends to increase the risk of overweight and obesity for children and adults.

To date, most evidence-based strategies to combat the childhood obesity epidemic have been developed and tested in non-rural settings and target either individuals or environments. The overall goal of the GROW Healthy Kids and Communities (HKC) project is to learn more about the environmental factors influencing health behaviors in rural places in order to prevent the onset of overweight and obesity in rural children. GROW HKC aims to **improve the behavioral**

environments – at home, in school, and in the community – to make healthy eating and activity options the easy and preferred choice for rural children and families.

Relevance for Caliente Community

Part of the Lincoln County School District, Caliente Elementary School has about 135 students in pre-kindergarten through sixth grade. About 51% of students qualify for free or reduced lunch; about the same as the school district average². This is significant for childhood obesity rates, as food insecurity has been associated with overweight and obesity³. The schools have indicated concern with not offering education on healthy eating and a willingness to introduce this content.

For adults in Lincoln County, the obesity rate in 2009 was 25.2% and the diabetes rate was 12.2%⁴. Childhood obesity rates for rural Nevada counties range from 19 to 20.3%⁵ although national survey data reflect lower prevalence, between 5 and 10% from 2009-2011⁶, for Lincoln County children and 8.6%⁴ for low income preschoolers, which may reflect a self-report bias in survey data vs. body mass index calculated from height weight measurements.

Regardless, helping children develop and sustain healthy habits, by providing healthy eating and activity supports to balance their energy intake with energy expenditure, is an important aspect to maintaining healthy weight, preventing overweight and obesity, and minimizing chronic disease risk. Because obesity prevention among rural populations requires an understanding of the supports and barriers to healthy eating and active living within and among rural communities, we are pleased to provide this report of resources and readiness to prevent childhood obesity for the community of Caliente.

Methods and Preliminary Results

A HEAL MAPPS™ team (n=8) comprised of community members from Caliente, Panaca, and Pioche with an interest in creating a healthier community volunteered and were first trained to individually photograph and map the features in Caliente and surrounding community places that they perceived as either supporting or hindering the development and maintenance of

² Lincoln County, Caliente Elementary School 2011-2012 School Accountability Report.

³ Casey, P., Simpson, P., Gossett, J., Connell, C., Harsha, D., et al. The association of child and household food insecurity with childhood overweight status. *Pediatrics*, 118(5).

⁴ USDA Food Environment Atlas. Retrieved September 12, 2013 from <http://www.ers.usda.gov/data-products/food-environment-atlas>

⁵ Health Status of Children Entering Kindergarten in Nevada, Results of the 2011-2012 Nevada Kindergarten Health Survey, March 2012.

⁶ CDC. (2013). Childhood Obesity Data. Retrieved September 12, 2013 from <http://www.cdc.gov/obesity/data/childhood.html>

habitual healthy eating, physical activity, and active transportation behaviors. Collectively, over 80 photographs were taken and mapped along 8 routes that represented the community's active (i.e. walking, bicycling, skateboarding, etc.) and motor vehicle transportation system. The 'mappers' covered the area including the 1.9 square miles of Caliente, 3.3 square miles of Panaca, and 6.1 square miles of Pioche and photomapped features in the surrounding unincorporated areas (see Figure 1).⁷ The HEAL MAPPS™ team reconvened for a focus group to discuss the photographs and maps and make decisions on which photographs were most representative of the community conditions. The HEAL MAPPS™ team selected 30 photographs, based on group consensus, which were included in a presentation used to provoke a larger community conversation. Over 25 community residents and stakeholders attended and participated in a community dinner and discussion held at Pioneer Pizza on August 29, 2013. The community conversation was facilitated by a member of the GROW HKC team trained to conduct HEAL MAPPS™ processes. Following the community dinner, photographs were displayed, participants were polled as to whether the feature made eating healthy or being physically active easier or harder for themselves or others in the community, and discussed their lived experiences of the local food and activity environment that informed their opinions.

Community Readiness

Communities differ in many ways including their readiness to take action on an issue and implement relevant programs. The level of community readiness is a major factor in determining whether a particular program can be effectively implemented and supported by a community. Assessing the level of readiness for environmentally-based obesity prevention efforts – improving availability and accessibility of healthy eating and activity options is thereby a critical component of obesity prevention program planning and evaluation.

The Community Readiness Assessment Model is a tool we used to gain an understanding of the Caliente community's resources and readiness for creating an obesity preventing environment. The assessment is divided into six dimensions that influence a community's readiness to take action on an issue. The six dimensions are: community knowledge about the issue; community efforts; community knowledge of the efforts; local leadership; community climate; and local resources related to the issue. Questions representing each dimension were asked during the Caliente Community Conversation and the participants shared their perception of Caliente's readiness and preparedness for change. Each dimension was then scored by an evaluator to identify the overall stage of readiness.

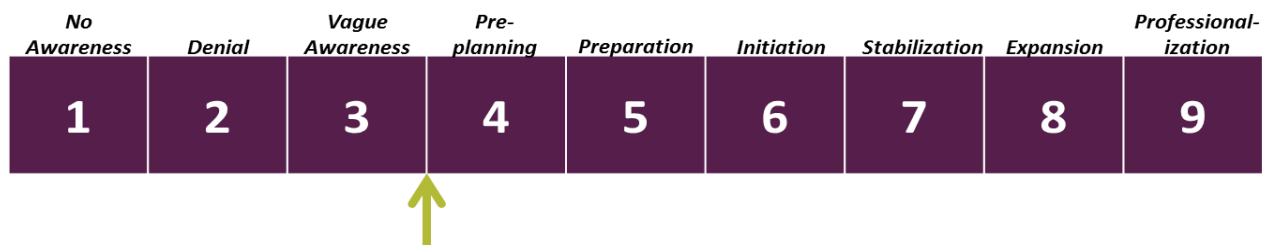
⁷ The 'mappers' individually determined the community boundaries as within the city and unincorporated land approximately served by the Caliente school district.

Results

Several Caliente community efforts to improve the food and physical activity environment were noted, efforts by civic and community leaders including many recreational supports (walking paths, parks and a swimming pool) and grant funds to support a free summer lunch program at the school. These efforts and evidence of leadership involvement contributed positively to the community readiness score given to the community.

Perceived barriers to healthy eating and physical activity included: lack of bike lanes, strong reliance on personal motor vehicle and perceived disinterest from local food retailers to serve local produce. Though the schools host after-school programs and activities, many students are unable to participate because there is no late bus option and the distance between the schools and the community is around 15 miles. There are many resources that exist in and around Caliente, but many are not accessible for everyone due to fees, distance (including a lack of active transportation supports) and lack of advertisement (indicates lack of knowledge about resources). The issue of accessibility was frequently mentioned, especially considering Caliente is part of a cluster of communities which collectively provide resources and services for residents in the area. The community is interested in providing resources to support healthy eating and physical activity, but it seems community members are only mildly concerned about the issue of childhood obesity. Instead, the attention and concern of the community is focused around other issues, such as ensuring the community is accessible for older adults and disabled residents.

Stages of Community Readiness



Caliente stage of readiness to implement environmental and policy strategies to prevent obesity emerged as between stage 3 (vague awareness) and stage 4 (preplanning), as indicated by the arrow on the Stages of Readiness graph.

Based on the Community Readiness Assessment Model, community efforts should focus on:

- 1) Use data to provide suggestions on where and how efforts should be focused based on resident input and identified barriers. Present information about the issue – obesity and the

rural environment and results of HEAL MAPPS™ at local community events and to unrelated groups; participate in event planning where information about obesity prevention can be integrated into the program; launch a media campaign - post flyers, posters, and billboards to raise awareness about the issue.

2) Gather additional existing data and new information, particularly at the local level, about childhood obesity, the food environment, and physical activity resources in order to plan data-driven strategies to address the community environment and make available and accessible healthy eating and active living options for all residents.

3) Begin to plan for community action and develop an evaluation plan of community efforts. Build and communicate Caliente's capacity to change – adopt the motto, *Our Community can GROW Healthy Kids*.

For more information about the Community Readiness Model, stages of community readiness, and stage-based strategies to increase community readiness to address health issues visit:

<http://triethniccenter.colostate.edu/communityReadiness.htm>

Summary of Results – Community Physical Activity and Healthy Eating Resources and Community Efforts (Supports or Barriers) emerging from Caliente Community Conversation

Physical Activity

Supports

- Outdoor trails and parks that are well maintained, including public parks and playgrounds and walking paths.
- Active recreation supports include baseball field, skate park, and new swimming pool.
- School-based activity programs include some structured physical education, and after-school physical activity and sports programs, such as the 100 mile walking club.

Barriers

- Impediments to active transportation supports include a lack of road shoulders, bike lanes, and a strong dependence on personal motorized vehicle due to the vast distances between work, school and place of residence.
- Some of the outdoor trails and parks are not very accessible due to a lack of bike lanes and distance from town to the parks.
- Lack of advertisement for recreational programs, groups, and services.

- Lack of available and accessible (across demographic groups) exercise facilities; affordability of existing exercise facilities – fee structure hinders accessibility for some community members.
- School-based barriers include no late bus option for after school programs; physical education is offered as an elective, and dependent on whether a teacher is available and able to teach it.

Healthy Eating

Supports

- Local food resource centers bridging local food production with distribution.
- Food retailers, such as a grocery store and a few food delivery services, support local availability of healthy food options.

Barriers

- Limited access to fresh fruits and vegetables – the grocery store “runs out of food;” seasonal influence on availability of locally grown/produced foods.
- Perceived “disinterest” of local food retailers to serve local produce; policies that regulate or restrict restaurants from offering local foods.
- No community-based educational programs to increase knowledge and skills required for healthy food and nutrition behavior for children, families, or food service organizations.

Resident-Informed Recommendations for Community Change

The following recommendations emerged from the data generated during the Caliente community conversation and represent those of the Caliente community members who shared their ideas during the facilitated discussion of the photographed community features. These recommendations do not represent those of the GROW Healthy Kids and Communities team or Oregon State University.

- Establish a community recreation facility (e.g. community center/YMCA) that makes available low-cost indoor recreation/exercise options.
- Construct bike paths from Caliente to the state parks to improve accessibility and safe, active transportation options.

Figures 1 through 4 represent the routes navigated by local residents as they mapped the physical features of the Caliente community using participatory photographic survey methods.

Figure 1. Represents all routes generated by the Caliente community mappers.

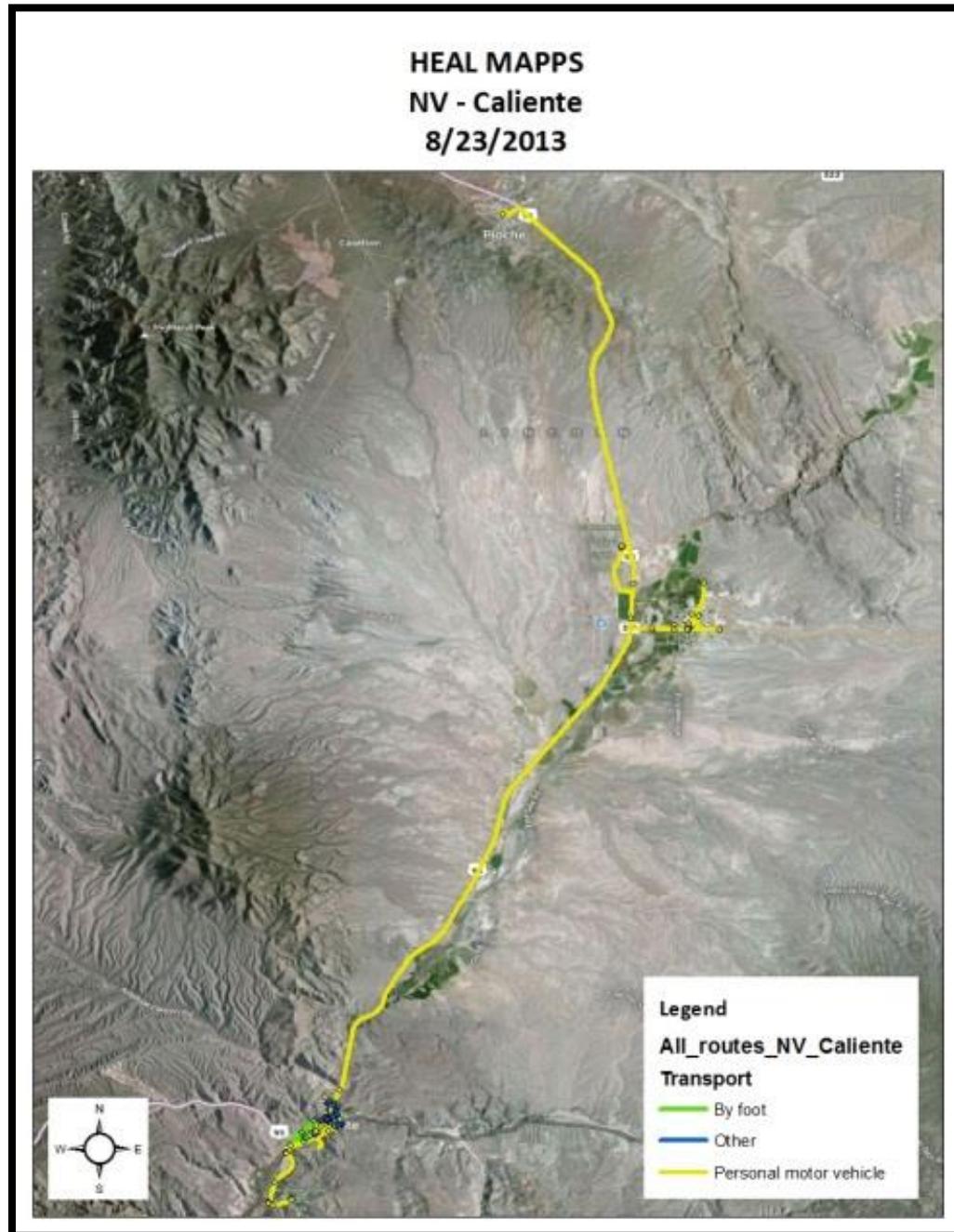


Figure 2. Represents an example of a route generated while using a personal motorized vehicle. All photograph location coordinates are in decimal degrees.

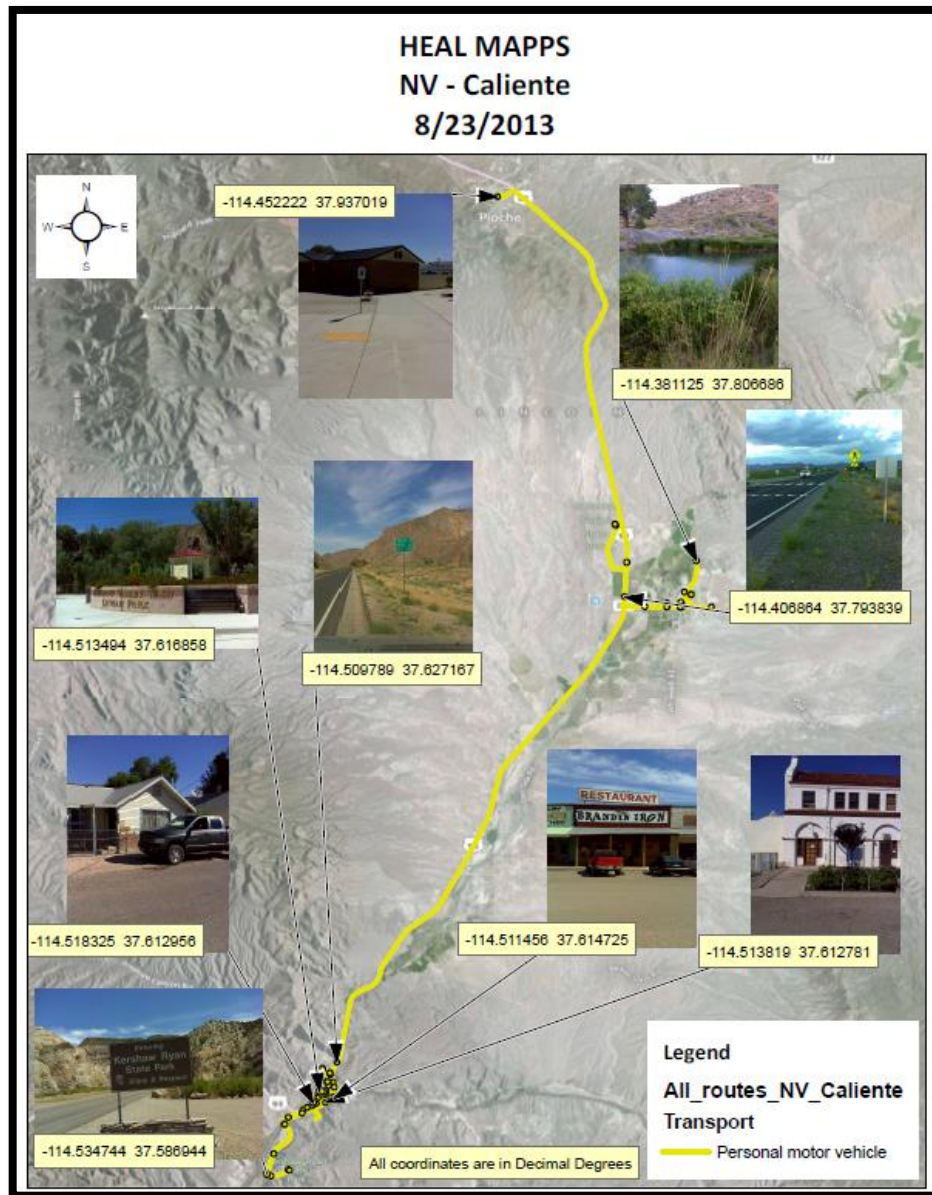


Figure 3. Represents a walking route and the features encountered along the route that enable or hinder healthy eating and/or physical activity.

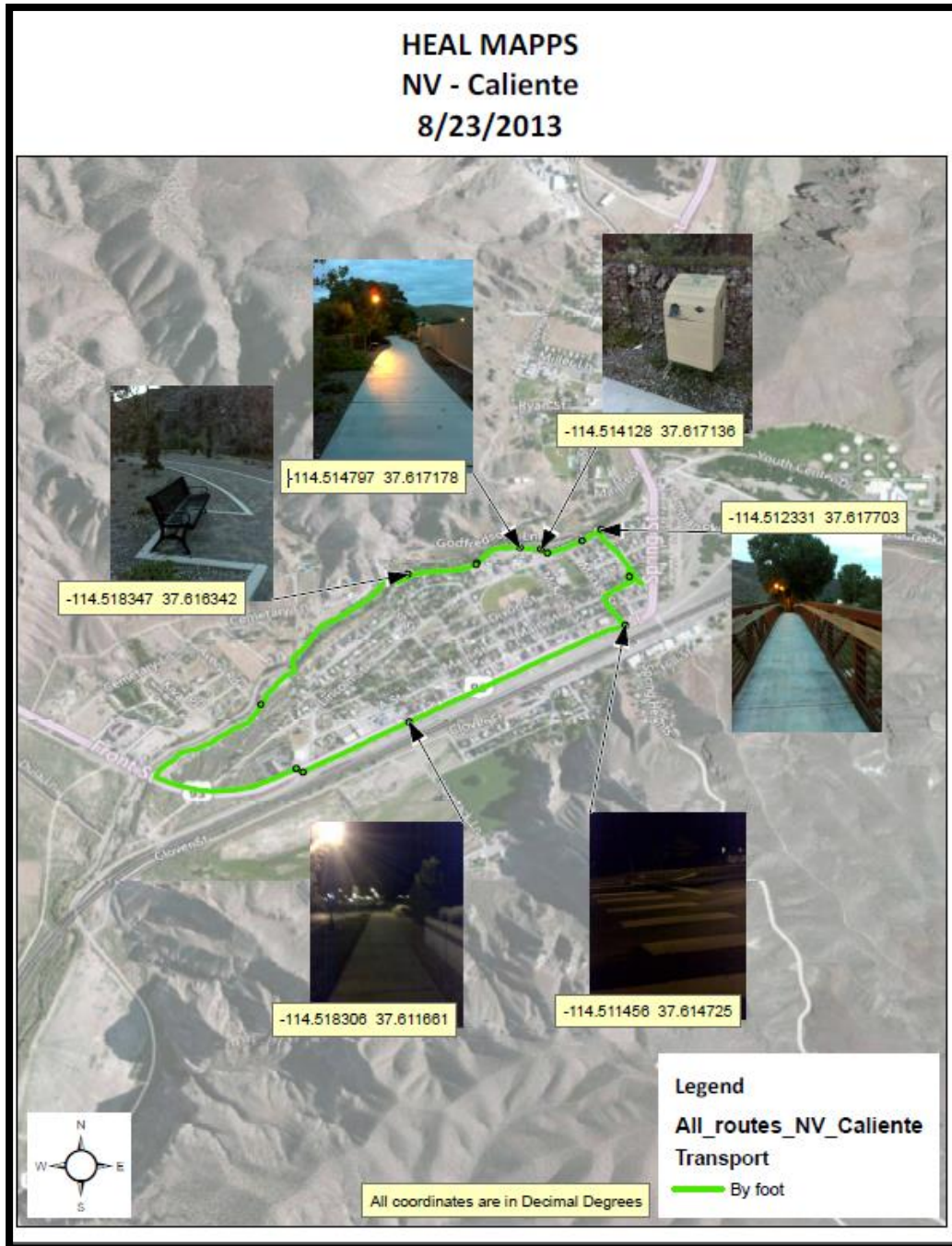


Figure 4. Represents routes in which the mode of transportation was not identified.

