



# Karuk Tribe

## Tribal Transportation Safety Study

June 2014





*Cover Photo: Bridge State Route 96, Orleans, California at dawn, April 2013 (Photo courtesy of Misty Rickwalt)*

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## I. Introduction and Background

### I-A. Introduction

The Karuk Tribe is committed to providing safer travel options for community members, including vehicular, pedestrian, and bicycle transportation. The Karuk Tribal Transportation Safety Plan was developed to identify unsafe conditions associated with the Tribe's transportation infrastructure, and develop a clear plan for protecting the life and safety of community members. This plan was funded by a 2014 Tribal Transportation Program Safety Planning Grant from the Federal Highway Administration (FHWA). This plan was developed by the Karuk Tribe's Department of Transportation.

### I-B. Background<sup>1</sup>

The Karuk Tribe is a federally recognized Indian Tribe (73 Fed. Reg. 18,535, 18, 544 (April 4, 2008)) occupying aboriginal lands along the middle course of the Klamath and Salmon Rivers in Northern California. The Tribe's Aboriginal Territory includes an estimated 1.48 million acres within the Klamath River Basin. This territory is the land base that was utilized in the process of receiving federal



Figure 1: A'uuyuich (Sugar Loaf Mountain) Karuk Tribe Center of the World (Photo courtesy of Scott Quinn)

<sup>1</sup> From the Karuk Eco-Cultural Resource Management Plan.



determination of tribal recognition. The Tribe continues to exercise jurisdiction over tribal lands and territories. Nearly all of the Karuk Tribe's aboriginal territory is located adjacent to lands administered by the USDA Forest Service's Klamath and Six Rivers National Forests. The Karuk Tribe's trust lands are composed of individual and tribal trust properties scattered along the Klamath River between Yreka and Orleans, California, with Tribal properties and administrative facilities located in Happy Camp, Orleans, Somes Bar, and Yreka. State Route 96 (SR 96), a winding, two-lane highway, connects the Tribe's noncontiguous lands.

In 2011, the Karuk Tribe received an Environmental Justice Transportation Planning Grant from the California Department of Transportation (Caltrans) to conduct a Community Transportation Plan to document transportation deficiencies affecting Tribal community members (including those with safety implications). The resulting plan documented 30 transportation projects on or near Tribal lands that would enhance access to services and physical safety conditions for Happy Camp, Somes Bar and Orleans communities. A well-defined community engagement process accompanied this effort, including three (3) community meetings and a questionnaire. In developing a Tribal Transportation Safety Plan, this document served as the foundation for the development of safety emphasis areas and strategies.

### I-C. Mission

The mission of the Karuk Tribal Transportation Safety Plan is to provide safer conditions for motorists, bicyclists, and pedestrians traveling in the vicinity of Tribal lands.

## II. Existing Resources

### II-A. Potential Safety Partners

- **Caltrans Districts 1 and 2:** Karuk tribal lands extend into Caltrans Districts 1 and 2. Caltrans has served as an active partner of the Karuk Tribe in previous transportation endeavors, including the recent *Middle Klamath River Community Transportation Plan*. Additionally, the Karuk Tribe is a committee member of the Caltrans Native American Advisory Committee (NAAC). The purpose of the NAAC is to work with the State Director of Transportation and departmental staff to ensure adherence to government-to-government relationships when interacting with federally recognized tribal governments. The Tribe will consult with Caltrans throughout the development of the Karuk Tribe's Long Range Transportation Plan update. The timing of the transportation plan is fortuitous, in that it will dovetail with the implementation of



**Figure 2: Law Enforcement Services are Lacking in the Remote Communities of Happy Camp, Orleans and Somes Bar**



safety-related projects presented in Tribal Transportation Safety Plan. Caltrans has expressed interest in potential partnership opportunities for proposed Tribal projects located within the California right-of-way. SR 96 is a major source of safety concerns for the Tribal communities of Orleans, Happy Camp, and Somes Bar. As a state-owned highway, engineering improvements to this route would require the support of Caltrans.

- **Local Law Enforcement Agencies:** The Karuk community of Orleans is located within Humboldt County, whereas Happy Camp, Somes Bar and Yreka are located within Siskiyou County, California. Consequently, the communities are covered by different county law enforcement agencies. The City of Yreka is the only community identified in this plan that is afforded its own police and sheriff departments. The California Highway Patrol (CHP) covers traffic enforcement along California State Route (SR) 96. This state route is a major focal point of traffic safety concerns for Karuk communities. The Karuk Tribe does not currently have a tribal police department.
  - **Humboldt County Sheriff's Department:** Headquartered in Eureka, the Humboldt County Sheriff's Department serves the greater Humboldt County area. The Humboldt County Sheriff's Office has one Main Station in Eureka, outstations in Garberville, Hoopa, and McKinleyville. Humboldt County Sheriff's Department will be an important resource when considering options for improved traffic enforcement in the community of Orleans. The Department may be an educational and enforcement resource to the Karuk Tribe in improving traffic safety conditions by implementing educational and enforcement strategies for traffic safety in the community of Orleans.
  - **Siskiyou County Sheriff's Department:** Headquartered in Yreka, Siskiyou County Sheriff's Department serves the greater Siskiyou County area. Additionally, the department provides radio dispatch and call receipt for three (3) other police departments, the National Park Service at the Lava Beds National Monument, as well as the United States Forest Service Law Enforcement Officers (LEOs) on the Klamath National Forest and the Shasta-Trinity National Forest in Siskiyou County. The Department also has law enforcement contracts with several small, rural communities. Siskiyou County Sheriff's Department provides community education events, such as "Bike Rodeos" where local youth are instructed in safe bicycling practices. The Department may be an educational and enforcement resource to the Karuk Tribe in improving traffic safety conditions in Yreka and Happy Camp.
  - **Yreka Police Department:** Yreka Police Department is a small law enforcement agency providing public safety services within the City of Yreka. The Department employs 14 officers and provides 24-hour law enforcement coverage. The Yreka Police Department also offers free safety-related services to community members, such as child car seat inspections, free cars seats to those in need, and bike helmets for children. Yreka Police



Department may serve as a partner to the Karuk Tribe in implementing education and enforcement strategies for traffic safety in Yreka.

- **California Highway Patrol (CHP):** California Highway Patrol is charged with enforcing traffic laws along state highways, including SR 96. The Tribe has consulted with CHP previously regarding speeding issues where the highway passes through Orleans. CHP will continue to be a resource in improving enforcement strategies along SR 96. Additionally, the CHP offers community outreach and multiple educational opportunities to protect the public and promote safe driving. Proven success has been noted through the introduction of child safety seat check-up events, bicycle rodeos, teen driver / parent workshops, distracted driving workshops, and, senior citizen specific events. The Karuk Tribe intends to develop educational campaigns and recruit the professional expertise of the California Highway Patrol.

- **U.S. Forest Service (USFS):**

Located within the Karuk Ancestral Territory are the Klamath National Forest and the Six Rivers National Forest. The Karuk Tribe's TTP road inventory includes routes owned and maintained by the USFS. The Tribe's road inventory includes several old logging roads that are used and maintained by the USFS. Several federal trails extend from USFS land through the Karuk Reservation, including the Pacific Crest Trail. The Tribe works closely with the USFS to protect Tribal cultural resources



**Figure 3: Salmon River Wild Fire – 2006 Highway Closures in Place for Three Weeks (Photo courtesy of Molli White)**

and manage the forest to reduce the incidence of wild land fire events. The collaborative process of forest and fire management has developed through decades of cooperation and consultation between the Karuk Tribe and the USFS, as well as other federal and state agencies, local governments and stakeholder groups. The Karuk Tribe has a long-standing MOU with the USFS to engage designated Tribal government representatives to work with ICTs in wildfire event management in order to protect heritage resources.<sup>2</sup> The USFS may serve as a resource and possible funding partner in safety improvements related to evacuation routes. The Headquarters offices for the Klamath National Forest is located in Yreka, California; a branch

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<sup>2</sup> Tripp, Bill (2012). *Success Stories from the Western Region: Karuk Tribe - Bringing Fire to the People*. Cohesive Wildland Fire Management Strategy National Goals; Collective Solutions.



office, Ranger District, is located in the community of Happy Camp. The Headquarters offices for the Six Rivers National Forest is located in Eureka, California; a branch office, Ranger District, is located in community of Orleans.

- **Local Municipal Governments:** Tribal lands extend into the City of Yreka and the communities of Happy Camp, Somes Bar, and Orleans, California. Each city or community could serve as a potential municipal partner in implementing safety measures within their boundaries.
- **Yurok Tribe:** The Karuk Tribe and the Yurok Tribe have a long history of working together on projects of common interest. The recent Klamath River Broadband Initiative was a collaborative pursuit by both the Karuk and Yurok Tribes. The tribes have joined forces advocating political causes, such as the Klamath dam removal efforts. The Yurok Tribe could be an important resource and/or partner in transportation safety improvements to Klamath River communities.
- **Local School Districts:** Klamath-Trinity Joint Unified School District, Yreka Union School District, Junction Elementary School District, and the Happy Camp Union Elementary School District may all serve as potential partners in improving safety conditions near schools, adjacent to Tribal lands or serving Tribal youth. Engaging school districts is crucial to developing and implementing educational programs on traffic safety directed at K-12 students. The Tribe may also wish to work with local school districts to pursue Safe Routes to School Grants to improve conditions for student pedestrians.



Figure 4: Orleans Elementary School





### II-B. Overview of Existing Efforts

**Middle Klamath River Community Transportation Plan:** Funded via an Environmental Justice Grant from Caltrans in 2010, the Middle Klamath River Community Transportation Plan identified a series of transportation projects needed to “create a foundation for safe and efficient travel to schools, jobs, health care, recreational destinations and residences.”<sup>3</sup> This plan served as a springboard for this Tribal Transportation Safety Plan.

**Klamath River Rural Broadband Initiative (KRRBI):**

In 2013, the Karuk Tribe was awarded a broadband grant from the California Public Utility Commission (CPUC) and the California Advanced Services Fund (CASF), in the amount of \$6,602,422. The grant funds are for the installation of 82.3 miles of fibre optic cable to the remote region of Northern Humboldt County. Vital community and government institutions will benefit from the project, including health care facilities, schools, rural fire camps, fire stations, public safety installations and several other state, federal and tribal government offices. These improvements will potentially improve emergency communications and accident reporting in the remote communities of Happy Camp, Orleans, and Somes Bar.



Figure 5: Reviewing the Broadband Project's fiber run along Ishi Pishi Rd in Orleans (KRRBI Facebook Page)

**Coordination Efforts with County Law Enforcement:** The Karuk Tribe does not have a tribal police department. The remoteness of Tribal communities has left Karuk members with inadequate public safety services. The Tribe previously contracted with the local county sheriff's department to increase coverage on Tribal lands; however, this arrangement was discontinued when the Tribe did not witness improvements in service, response time or local crime rates.

**Coordination Efforts with State Law Enforcement:** California Highway Patrol (CHP) is responsible for traffic enforcement along SR 96 – the road with the most significant traffic safety concerns. Recognizing the CHP's budgetary restrictions and the remoteness of the Orleans community, the Tribe worked closely with Caltrans to install two (2) speed radar notification signs at SR 96 near Orleans Elementary School to discourage speed violations. Although the signs had a temporary effect in slowing motorists, locals soon learned that the signs were unmonitored. Consequently, the signs have not had a long-lasting impact on reducing the number of speed violators in Orleans.



Figure 6: Karuk Behavioral Health and Alcohol Center

<sup>3</sup> Lumos & Associates for the Karuk Tribe (2011). *Middle Klamath River Community Transportation Plan*.



**Substance Abuse Programs<sup>4</sup>:** The Karuk Tribe Substance Abuse Program (KSAP) is a state certified drug and alcohol program. The program operates a state licensed Driving under the Influence (DUI) Program in Yreka, Happy Camp and has a satellite office in Quartz Valley. Certified addictions counsellors provide outpatient drug and alcohol counselling, among other services. The California American Indian Recovery Services (CAIRS) program is a state-wide substance abuse treatment and recovery support program administered by the California Rural Indian Health Board (CRIHB). CAIRS works to empower American Indian/Alaska Native (AI/AN) people in California to break the cycle of drug and alcohol addiction and achieve long-term recovery. The KSAP service providers are authorized by CRIHB to provide CAIRS-related services. KSAP and CAIRS may serve as resources in reducing DUIs, working with repeat offenders, providing speakers on first-hand accounts of the consequences of drunk driving.

### II-C. Emergency Response Resources

The rural communities of Happy Camp, Orleans, and Somes Bar have very limited emergency response capabilities. Yreka members are better served in this area, due to in-town coverage and proximity to Interstate 5. Area emergency services are outlined below.



**Figure 7: Karuk-1 Wild Land Fire Crew - Professionally Trained 20-Person Type II Initial Attack (Photo courtesy of Harold Tripp)**

#### General Resources

##### Law Enforcement

**State:** California Highway Patrol (CHP) is responsible for emergency response along state-owned highways, including SR 96. SR 96 passes through all Karuk communities, and is the source of many unsafe intersections and potential vehicle/pedestrian conflicts. Unfortunately, CHP does not have a station located near the more rural Karuk communities, which greatly impacts traffic enforcement and emergency response times.

**County:** Karuk communities are included in county law enforcement jurisdictions. Siskiyou Sherriff's Department covers Happy Camp and Yreka, whereas Humboldt Sherriff's Department covers Orleans and Somes Bar. However, as with CHP, the lack of a local sheriff stations significantly delays traffic enforcement and response times in responding to crashes.

**Municipal:** Yreka is the only community with a local (municipal) police force. Yreka Police Department provides 24-hour emergency response services within the City of Yreka.

<sup>4</sup> Excerpted from the KSAP page of the Karuk website: <http://www.karuk.us/index.php/departments/child-and-family-services/293-karuk-substance-abuse-program-ksap>



**Fire:** Volunteer fire stations are provided in the Karuk communities of Happy Camp and Orleans. Volunteers are dispatched in the event of a fire, as well as other accidents or emergencies in their respective communities.

**Air Life:** Major medical emergencies may require transport to Yreka or larger regional hospital facilities in Medford or Redding. Air life transport is available through a few local providers, including Mercy Flights (Medford), Mercy Air/PHI (Redding), and REACH for Life (Redding). Air life response time is approximately 45 minutes.

### Happy Camp

Happy Camp has a few limited emergency response options, many of which are volunteer-based.

#### **Karuk Community Health Clinic in Happy Camp**

The Karuk Community Health Clinic is located at 64236 Second Avenue in Happy Camp. The clinic is open Monday – Friday from 8:00 a.m. – 5:00 p.m. Medical personnel are only equipped to respond to “minor emergencies that do not require a visit to the emergency room.”<sup>5</sup> Certain after-hours medical services may be provided by telephone. The Clinic also supports the Karuk Tribe Substance Abuse Program by providing space for meetings and Telemed videoconferencing services.



**Figure 8: Karuk Tribal Administrative Offices and current site of the Happy Camp Clinic**

#### **Happy Camp Community Emergency Response Team (CERT)**

The Happy Camp Community Emergency Response Team (CERT) is a volunteer-based group of Happy Camp citizens that are trained to respond to a variety of emergency situations. They are dispatched via the county sheriff’s office. The CERT group does not include EMTs.

#### **Happy Camp Volunteer Ambulance**

The Happy Camp Ambulance is operated almost entirely by volunteers, with the exception of two (2) paid staff members that work out of the Happy Camp Fire Station. The volunteer ambulance program remains busy for a rural area, with an average call volume of 270 calls per year. The average response time within Happy Camp is 5-15 minutes (when the ambulance is not already on a call). Happy Camp has three (3) certified ambulance vehicles; yet, the program struggles to find an adequate number of trained, physically-fit volunteers that are able to handle the physical challenges of extracting accident victims from crushed and/or displaced vehicles. The Happy Camp Ambulance often responds to calls in Orleans and Somes Bar (where they do not have an ambulance program), and provides mutual aid extending into Humboldt County and the Yreka area.

<sup>5</sup> Karuk Tribe website, IHS page.



### Orleans

Orleans is a small, remote community located 45 miles southwest of Happy Camp. The community does have a volunteer-based group of first responders for initial life support services, but depends upon ambulance services from neighboring communities. The closest volunteer ambulance is located in Happy Camp, whereas the closest staffed ambulance is in Hoopa.

Communication is a huge obstacle for all emergency response services in and near Orleans. Most areas lack cell phone service; even the radios used by emergency responders have “dead spots” where they cannot transmit or receive. This creates difficulties with reporting accidents, dispatch of aid, locating accident scenes, and on-scene communications.



**Figure 9: Orleans Health & Wellness Center**

#### Orleans Fire Department

Orleans Fire Department is a volunteer-based, self-funded organization that responds to fire and emergency calls within Orleans and Some Bar. Orleans Fire Department is dispatched from Fortuna ECC center by Cal Fire, and receives 50-100 calls per year. Program volunteers include a mixture of fire fighters, first responders, EMTs and one (1) paramedic. Orleans Fire Department’s rescue vehicle is over 40 years old, and in need of constant maintenance. The Department is actively trying to obtain sufficient grant funding to purchase a new vehicle. The department does not have access to needed rescue equipment, such as a jaws of life.

#### Orleans Health and Wellness Center

The Orleans Health and Wellness Center is located at 39051 Highway 96 in Orleans. The clinic is open Monday – Friday from 8:00 a.m. – 5:00 p.m. Medical personnel are only equipped to respond to “minor emergencies that do not require a visit to the emergency room.”<sup>6</sup>

### Somes Bar

Somes Bar is a very small, remote community approximately seven (7) miles northeast of Orleans. The community has access to a volunteer-based group of first responders for initial life support services, but depends on ambulance services from the communities of Happy Camp or Hoopa (both of which have an approximately one-hour response time), or ambulance service from Yreka (2-3 hour response time).

<sup>6</sup> Karuk Tribe website, IHS page.



## Yreka

As the most urbanized of the Karuk communities, Yreka is well-served by multiple emergency response entities, including a local hospital, sheriff’s department, and fire station.

### Karuk Clinic in Yreka

The Karuk Clinic is located at 1519 South Oregon Street in Yreka. The clinic is open Monday – Friday from 8:00 a.m. – 5:00 p.m. Medical personnel are only equipped to respond to “minor emergencies that do not require a visit to the emergency room.”<sup>7</sup>



**Figure 10: Karuk Clinic in Yreka**

### Fairchild Medical Center

This small community hospital is located at 444 Bruce Street in Yreka, California. The hospital has a 24-hour emergency department that is staffed by physicians specializing in Emergency Medicine. Fairchild Medical Center has met the state criteria for evaluation and treatment of trauma and has an emergency landing site for quick helicopter transport to a higher of level of care facility.<sup>8</sup>

**Table 1: Emergency Response Resources Serving Karuk Communities**

| Community                         | Yreka  | Happy Camp   | Orleans  | Somes Bar  |
|-----------------------------------|--|--|--|--|
| <b>State Law Enforcement</b>      | <i>California Highway Patrol (CHP) for SR 96 / state owned highways</i>                          |  |  |  |
| <b>Air Life</b>                   | <i>Local Providers: Mercy Flights, Mercy Air/PHI, and REACH for Life</i>                         |  |  |  |
| <b>County Law Enforcement</b>     | Siskiyou Sherrif’s Department  | Siskiyou Sherriff’s Department   | Humboldt Sherriff’s Department                                 | Humboldt Sherriff’s Department   |
| <b>Municipal Law Enforcement</b>  | Yreka Police Department  | N/A  | N/A  | N/A  |
| <b>Emergency Medical Services</b> | Fairchild Medical Center - Emergency Room<br>Karuk Clinic (very limited emergency services only) | Karuk Clinic in Happy Camp (very limited emergency services only)<br>Volunteer Ambulance | Karuk Clinic in Orleans (very limited emergency services only) | None in Somes Bar - must come from Happy Camp or Hoopa (1+ hour response time)           |
| <b>Fire</b>                       | Yreka Volunteer Fire Department  | Happy Camp Volunteer Fire Department   | Orleans Volunteer Fire Department                              | None in Somes Bar - Orleans Volunteer Fire Department will respond to calls in this area |
| <b>Other</b>                      | N/a  | Happy Camp Community Emergency Response Team (CERT)                                      | N/A  | N/A  |

<sup>7</sup> Karuk Tribe website, IHS page.

<sup>8</sup> Fairchild Medical Center website.



### III. Documentation of Needs and Priorities

#### III-A. Community Priorities

Community priorities were assessed based on a recent survey conducted in association with the Middle Klamath River Community Transportation Plan. Part of this survey assessed the top transportation concerns of Karuk Tribal members. The top transportation safety issues are noted in Table 2, including road conditions, reckless / inattentive driving, lack of bicycle and pedestrian facilities, speeding motorists, and lack of warning signs / guard rails / markings. Community priorities are in line with the noted concerns (Table 2).

Table 2: Karuk Community - Transportation Concerns

| Transportation Concerns – Karuk Tribal Members | Percentage |
|--|------------|
| Potholes / Road Conditions                     | 28%        |
| Reckless / Inattentive Driving                 | 20%        |
| Lack of Bicycle and Pedestrian Facilities      | 19%        |
| Speeding                                       | 17%        |
| Warning Signs, Guard Rails, Markings, etc.     | 15%        |
| Other  | 2%         |

#### III-B. Safety / Accident Data Overview

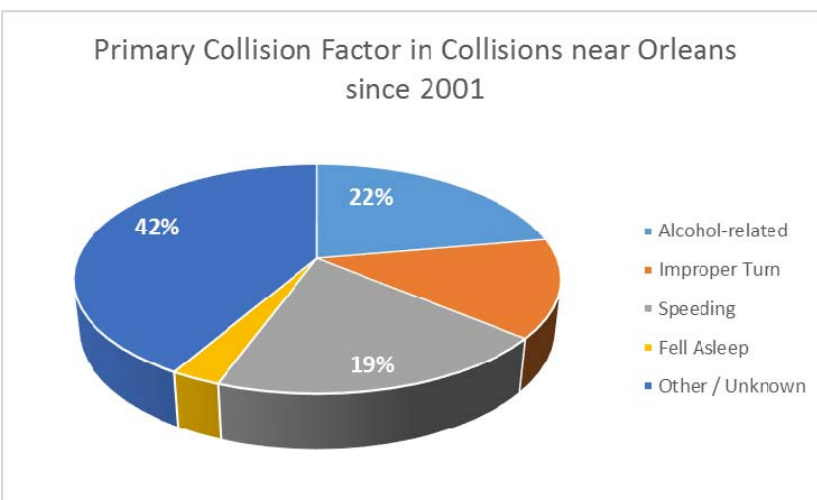
The majority of accidents along Karuk lands are associated with SR-96 – a winding, two-lane highway that follows the Klamath River, and runs through the cities of Orleans, Happy Camp, and Yreka. The Tribe has identified Orleans the area of highest priority, due to the number of accidents and fatalities, the ongoing risk to school children walking to school along SR-96, the lack of law enforcement, and the inadequate emergency response options serving this community. Happy Camp has also experienced a high number of traffic collisions (relative to its rural location) along its section of SR-96. Yreka represents a more urbanized area with ample local law enforcement and emergency response options. Although there are areas within Yreka that would benefit from safety improvements, it was determined that the rural communities of Orleans and Happy Camp have the most pressing needs. Therefore, the Safety Plan will focus primarily on the areas of Orleans and Happy Camp.

The accident data referenced for this study was obtained by the California Department of Transportation (Caltrans) Traffic Accident Surveillance and Analysis System (TASAS) and (in the case of Orleans) printed “run sheets” archived by the Orleans Volunteer Fire Department. The timeframe of the Caltrans reports spanned from 2001 – 2011 (the most recent year that data was available). Several additional accidents in the Happy Camp area were noted based on newspaper articles.



### Orleans

Approximately 11 accidents were reported on SR 96, in or near Orleans, from 2001-2011 by Caltrans. An additional 25 accidents were noted in the handwritten accident records (“run sheets”) maintained by Orleans Volunteer Fire Department. Considering both data sources, there were a minimum of 36 collisions recorded in the Orleans area since 2001. This number is likely low, due to underreporting of accidents. Orleans is located in a very remote area with extremely limited public safety resources. Accident response times are lengthy, as law enforcement officers and emergency responders are often hours away. Consequently, smaller accidents (not involving injuries or deaths) are often not reported.



**Figure 11: Primary Collision Factor in Vehicle Accidents since 2001 in Orleans (Source: Combined data from Caltrans and Orleans Fire Department)**

Approximately 10 of the 36 accidents occurred on Red Cap Road – one of the areas identified for pedestrian and bicyclist improvements in Middle Klamath River Community Transportation Plan and the Humboldt County Bike Plan. This route is vital to connecting residential areas to vital community services in Orleans.

Of the 36 accidents reported in or near Orleans, at least 19% of the collisions were alcohol-related. Tribal members report that drinking and driving is a major problem in Orleans, and a frequent contributor to traffic incidents. Approximately 14% of accidents were due to improper turns. Speeding was a factor in 14% of collisions.



The majority of accidents involved drivers hitting an object rather than another car. Cars frequently run off the road or even off of embankments when traveling along SR-96. Approximately 17% of reported accidents involved vehicle-pedestrian conflicts. This is an area of particular concern for Tribal members, as children frequently walk or bicycle along SR-96 to reach Orleans Elementary School or other area destinations.

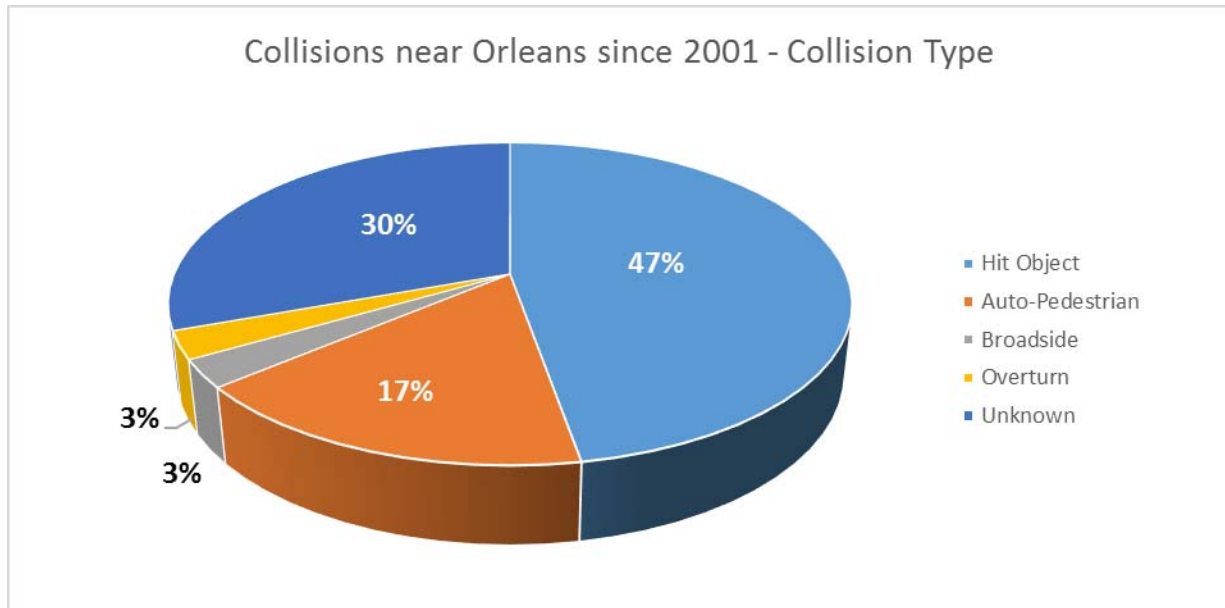


Figure 12: Collisions near Orleans since 2001 - Collision Type

### Happy Camp

Happy Camp shares many of the same characteristics as Orleans. It is a remote community situated next to the Klamath River. SR 96 is the major access road leading to and from Happy Camp. Although Happy Camp does have a local clinic, emergency medical services typically require transport to another area. The community lacks law enforcement officers; this allows traffic violations to occur without consequence. Tribal youth and community members must often walk across SR 96 in areas without crosswalks to access local destinations.

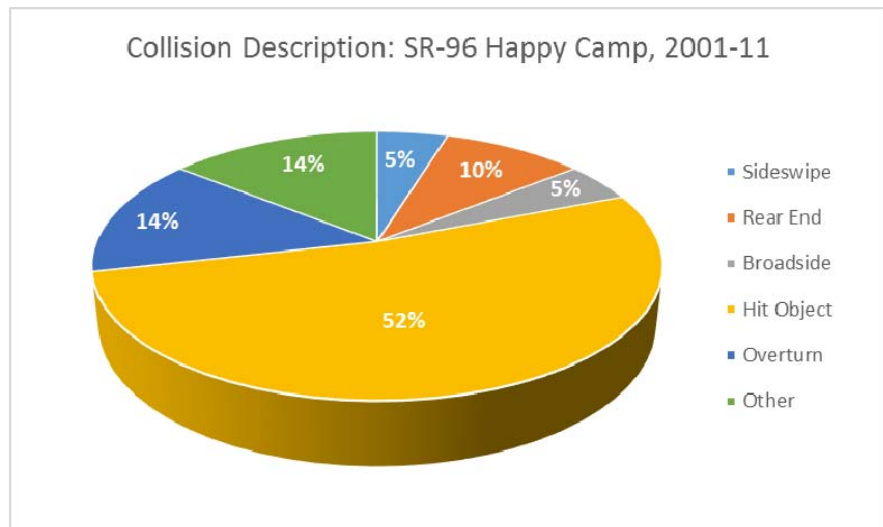


Figure 13: SR-96 in Happy Camp (Source: Google Earth)





Approximately 21 traffic collisions were reported along SR-96 at Happy Camp from 2001 to 2011. As with Orleans, it is likely that this number only reflects the more significant accidents. As law enforcement officers are hours away, many minor accidents are likely unreported. Of the 21 reported accidents, approximately nine (9) involved injuries. None of the accidents from 2001-2011 resulted in fatalities.



**Figure 14: Collision Description - SR-96 Happy Camp (Source: Caltrans TASAS)**

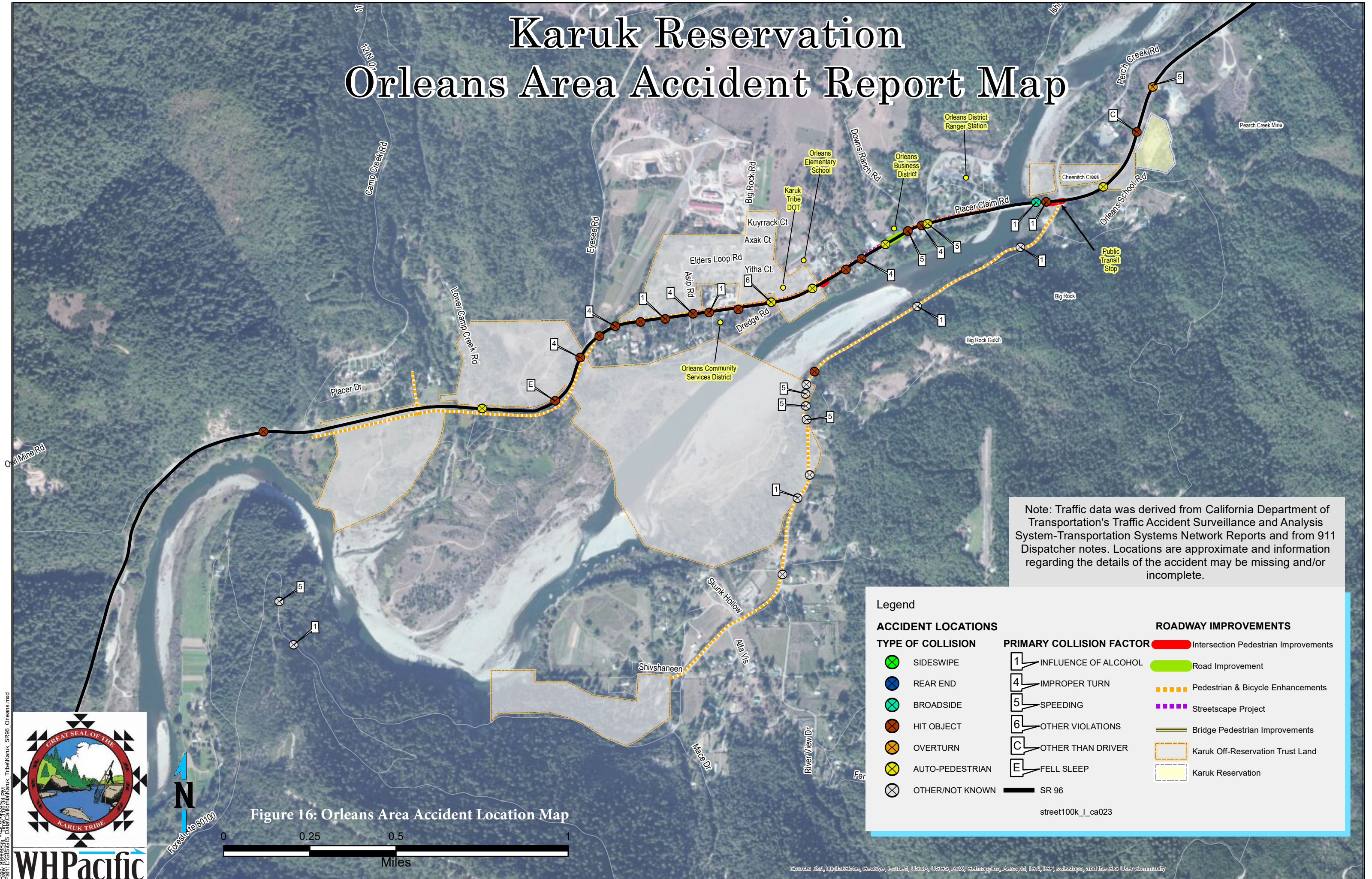
However, two (2) accidents with fatalities were reported in local newspapers in 2012:

- In December 2006, two (2) single vehicle collisions occurred east of Orleans on SR 96, 15 miles outside of Happy Camp. At least one of the crashes was alcohol-related. The crashes resulted in one (1) serious injury and four (4) fatalities.
- In 2010, a single vehicle collision occurred approximately 15 miles west of Happy Camp. This crash was reportedly related to distracted driving. The accident resulted in three (3) fatalities.
- In 2009, a single vehicle collision occurred approximately five (5) miles east of Orleans on SR 96. The crash was reportedly alcohol-related, and resulted in one (1) fatality and two (2) serious injuries.
- In May 2012, a single vehicle car crash occurred on SR 96 near Happy Camp. The crash resulted in one (1) fatality. Additionally, the crash led to a small forest fire that was later extinguished. Reportedly, the accident resulted from the vehicle swerving off the roadway.
- In April 2012, a single vehicle car crash occurred eastbound on SR 96, just outside of Happy Camp, resulting in one (1) fatality. The accident was reportedly alcohol-related.

Although Happy Camp has fortunately avoided pedestrian / vehicle collisions to date, there are many “near misses” where Tribal members (particularly youth) dart across SR-96, narrowly missing cars. Countermeasures are needed to ensure that such a tragedy never occurs.



# Karuk Reservation Orleans Area Accident Report Map



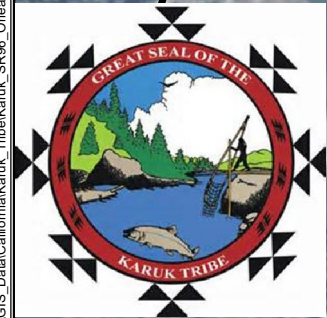
Note: Traffic data was derived from California Department of Transportation's Traffic Accident Surveillance and Analysis System-Transportation Systems Network Reports and from 911 Dispatcher notes. Locations are approximate and information regarding the details of the accident may be missing and/or incomplete.

**Legend**

|                           |                                 |                                      |                                  |
|---------------------------|---------------------------------|--------------------------------------|----------------------------------|
| <b>ACCIDENT LOCATIONS</b> |                                 | <b>ROADWAY IMPROVEMENTS</b>          |                                  |
| <b>TYPE OF COLLISION</b>  | <b>PRIMARY COLLISION FACTOR</b> | Intersection Pedestrian Improvements | Road Improvement                 |
| SIDESWIPE                 | INFLUENCE OF ALCOHOL            | Pedestrian & Bicycle Enhancements    | Streetscape Project              |
| REAR END                  | IMPROPER TURN                   | Bridge Pedestrian Improvements       | Karuk Off-Reservation Trust Land |
| BROADSIDE                 | SPEEDING                        | Karuk Reservation                    |                                  |
| HIT OBJECT                | OTHER VIOLATIONS                |                                      |                                  |
| OVERTURN                  | OTHER THAN DRIVER               |                                      |                                  |
| AUTO-PEDESTRIAN           | FELL SLEEP                      |                                      |                                  |
| OTHER/NOT KNOWN           | SR 96                           |                                      |                                  |

street100k\_1\_ca023

Figure 16: Orleans Area Accident Location Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



### IV. Safety Plan

#### IV-A. Emphasis Areas, Goals and Strategies

The Karuk Tribe has identified the following Emphasis Areas, in accordance with the plan's mission to provide safer conditions for motorists, bicyclists, and pedestrians traveling in the vicinity of Tribal lands:

- Intersection Safety
- Pedestrian and Bicyclist Safety
- Speed Reduction
- Seatbelt Use
- Alcohol Impaired Driving
- Run off the Road Crashes
- Emergency Access / Evacuation Routes
- Improved Data Collection on Vehicle Collisions

The following section provides background on each emphasis area, outlines the Tribe's goals in improving conditions, and describes specific strategies in the areas of education, engineering, enforcement, and emergency management.



**Figure 17: SR 96 near Somes Bar, CA. Landslides and falling debris are a common occurrence.**

#### Intersection Safety

##### Background

The risks associated with unsignalized rural highway intersections are well documented. Approximately 56% of road fatalities occur in rural areas.<sup>9</sup> Motorists often travel at high speeds on rural highways, not expecting to have to suddenly yield to a slowing vehicle, a crossing pedestrian or bicyclist. While rural intersection collisions occur less frequently than urban intersection collisions due to lower traffic volume, the risk of injury and/or fatality tends to be higher in rural collisions due to the average vehicle speed. Over 80% of rural intersection fatalities occur at unsignalized intersections.<sup>10</sup> Rural unsignalized intersections experience twice as many fatal crashes as urban unsignalized intersections.<sup>11</sup>

SR 96 typifies many of the risks associated with unsignalized rural intersections. SR 96 is a rural, two-lane highway crossing through several remote communities. Tribal members in Happy Camp, Orleans, and Somes Bar must frequently cross SR-96 to access Tribal buildings, services, schools, and residences. The

<sup>9</sup> National Highway Traffic Safety Administration (NHTSA) (2008)

<sup>10</sup> FHWA, Volume 5, NCHRP Report 500: A Guide for Addressing Unsignalized Intersection Collisions (2011)

<sup>11</sup> National Cooperative Highway Research Program (2003), Report 500, Volume 5: A Guide for Addressing Unsignalized Intersection Collisions.



number, placement and condition of crosswalks in Happy Camp, Orleans and Somes Bar are insufficient. Existing crosswalks are ignored by pedestrians and motorists alike, due to the following factors:

- Crosswalks are faded, with diminished visibility
- Crosswalks are not placed where people tend to cross, leading to jaywalking
- Lack of local law enforcement to ensure that motorists yield to pedestrians in crosswalks, and that pedestrians use crosswalks to cross the street.

Many key intersections do not have adequate crosswalk striping or signage. Additionally, the lack of pedestrian resources, such as sidewalks and well-maintained paths, creates “an unsafe pedestrian network that does not meet current ADA design recommendations.”<sup>12</sup> Children are especially at risk, as many students must cross SR-96 to access school buildings.

### Goal

The goal of this emphasis area is to reduce the number of pedestrian/vehicle conflicts by improving intersections and incorporating complete street concepts to encourage safer crossings.

### Strategies

#### Education

- Work with Klamath-Trinity Joint Unified School District, Siskiyou Union School District, Junction Elementary School District, and Karuk Head Start to create a “safe crossing” education campaign to encourage students to always use a crosswalk.
- Organize targeted education campaign on safety problems at “high risk” intersections in Happy Camp, Orleans and Somes Bar.

#### Engineering

- Intersection improvements – SR-96 at Orleans Elementary School. Improvements include:
  - Restripe crosswalk
  - Install pedestrian crossing warning system / school crossing signage to meet standards
  - Construct sidewalk and/or pathway adjacent to crosswalk to ensure pedestrian safety.
- Intersection improvements – SR-96 at Red Cap Road in Orleans



**Figure 18: Crosswalk across SR 96 at Orleans Elementary School (Source: Middle Klamath River Community Transportation Plan, Lumos & Associates for the Karuk Tribe)**

<sup>12</sup> Karuk Tribe, prepared by Lumos & Associates (2011). *Middle Klamath River Community Transportation Plan*.



- Redesign intersection to include crosswalks in a manner that will allow for safe crossing via planned (future) pedestrian facilities.
- Intersection Improvements – SR-96 at Park Way in Happy Camp
  - Redesign intersection to include curb, sidewalk, and gutter at corners. Provide striping for crosswalks in a manner that will allow for safe crossing via planned (future) pedestrian facilities / streetscape projects.
- Implement “complete streets” concepts to all pedestrian and bicyclist sites.
- Conduct a sign retroreflectivity study, assessing the nighttime visibility of signs on Tribal lands.

Maps illustrating the locations of the proposed engineering strategies associated with intersection and pedestrian improvements are provided in Figures 16 and 17.

### Enforcement

- Improve enforcement before and after school hours by increasing the number of volunteer crossing guards.
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.
- Work with Karuk’s Judicial Branch to expand services to include a traffic court.<sup>13</sup>

### Emergency Response

- Organize Emergency Medical Responder (EMR) training programs in Happy Camp and Orleans, with the goal of having at least five (5) certified EMRs living in each location.<sup>14</sup>
- Offer EMT training course in Orleans, with the goal of increasing the number of local Paramedic EMTs.
- Upgrade rescue vehicle and equipment used by Orleans Volunteer Fire Department, allowing them to improve their ability to respond effectively to accidents in Orleans and Somes Bar. This should include purchasing of Jaws of Life equipment.
- Mandatory first aid/CPR training program for school crossing guards

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<sup>13</sup> Currently, Karuk’s Judicial Branch only includes a Family Court. The Tribe may be able to apply for grant funding to form a traffic court.

<sup>14</sup> An EMR is essentially a certified “First Responder” who is able to provide pre-hospitalization services until an ambulance arrives (similar to a police officer or firefighter arriving on the scene). EMR training programs are typically around 40 hours – more than a simple first aid/CPR certification (8 hours), but considerably less than a full Emergency Medical Technician (EMT) program (120 hours).



### Pedestrian and Bicyclist Safety

#### Background

The emphasis areas of intersection safety and pedestrian / bicyclist safety are closely related, as approximately 32% of all pedestrian-related crashes occur within 50' of an intersection.<sup>15</sup> Drivers and pedestrians share the responsibility for avoiding these types of collisions. Approximately 22% of pedestrian / vehicle collisions occur when a pedestrian darts in to the road, whereas 16 percent of such collisions are due to driver violations.<sup>16</sup>

Happy Camp, Orleans, and Some Bar are remote rural communities where residents frequently reach local destinations on foot or via bicycle. Unfortunately, the lack of pedestrian infrastructure on local streets (especially along SR-96 and Red Cap Road) create a high potential for pedestrian / vehicle collisions. Pedestrian paths are needed along areas of SR-96, Red Cap Road and other areas to physically separate walkers and bikers from motorists.



**Figure 19: Sign along SR 96 at Some Bar School Zone**  
(Source: Middle Klamath River Community Transportation Plan, Lumos & Associates for the Karuk Tribe)

#### Goal

The goal of this emphasis area is to reduce the number of pedestrian/vehicle conflicts by improving pedestrian / bicycling infrastructure and encouraging safe crossing practices.

#### Strategies

##### Education

- Hold annual “Bike Rodeos” in Orleans, Some Bar and Happy Camp. A Bike Rodeo is a bicycle safety clinic featuring instruction in safe bicycling practices, related traffic laws, bike safety inspections, minor repairs, helmet fit test, a safety lecture, drawings, and prizes.
- Work with the Tribal Education Department to begin advocating for students to enter into paramedic, nursing, and medical careers.
- Organize bicycle helmet distribution programs. Approximately 70-80% of bicycle fatalities involve head injuries.
- Develop Tribal brochures highlighting pedestrian and bicycle safety guidelines (e.g. walk opposing traffic, wear reflective gear at night, use crosswalks, etc.).

<sup>15</sup> NCHRP Report 500, Volume 5: A Guide for Addressing Unsignalized Intersection Collisions.

<sup>16</sup> Ibid.



- Organize a presentation on “Safe Practices for Mature Motorists” (AARP and AAA offer this) to discuss issues among older drivers that can lead to pedestrian / bicyclist conflicts (e.g. compensating for slower response times, etc.).
- Work with Indian Health Services (IHS) to develop an Injury Prevention Program.<sup>17</sup>

### Engineering

- **Red Cap Road bike and pedestrian enhancements, including creation of Class II bikeway along Red Cap Road in Orleans.**

Red Cap Road is the major access route for residents living on Karuk Tribal land and private properties near Orleans. Red Cap is a narrow two-lane road without shoulders. Pedestrians routinely walk along the roadway to access Tribal facilities and services in town; there is a daily potential for vehicle/pedestrian conflicts along this road. This stretch of Red Cap Road has been the site of ten accidents in recent years. The need for this project has been documented in multiple plans, including the *Middle Klamath River Community Transportation Plan* (2011), the *North Coast Tribal Transportation Commission (Humboldt County) Regional Transportation Plan* (2014), and the *California Transportation Commission 2013 Report of STIP Balances, County and Interregional Shares*.



**Figure 20: 2nd Street Bridge is non-ADA Compliant**  
(Source: *Middle Klamath River Community Transportation Plan*, Lumos & Associates for the Karuk Tribe)

- **Complete Street Project in Downtown Orleans**
  - This project involves the redesign of SR 96 between Asip Road and the bridge over the Klamath River to include pedestrian facilities, intersection treatments, curb, sidewalk, and gutter at corners when appropriate, as well as striping for crosswalks.
  - The project will also resolve vertical sight distance issue created by “dip” in the roadway along SR 96, at the west end of downtown Orleans. This area is also the only emergency vehicle entrance / exit in Orleans.
  - The need for this project has been documented in multiple plans, including the *Middle Klamath River Community Transportation Plan* (2011), and the *North Coast Tribal Transportation Commission (Humboldt County) Regional Transportation Plan* (2014).
- **Complete Street Project in Happy Camp at SR-96 (Davis Road to 4<sup>th</sup> Avenue)**

<sup>17</sup> Also, include a data collection process with IHS, working with Anne Smith, Karuk’s Tribal / public nurse.





- Reconstruct SR 96 between 1<sup>st</sup> Avenue and David Road according to a “rural complete streets” model with defined pedestrian facilities, transit stops, and bike lanes.
- Construct intersection improvements noted previously to promote pedestrian safety
- **Other bicycle / pedestrian improvements**
  - Create two (2) pedestrian paths with stairs, surface street treatment and separated path in Happy Camp from Happy Camp High School to Jacobs Way.<sup>18</sup>
  - Create SR 96 Multiuse path in Orleans, from Orleans Elementary School west to Eyeese Road
  - Create pedestrian path with stairs at Indian Creek / Jacobs Way in Happy Camp (from Parry’s Market to Jacobs Road).
  - Construct Class II bikeway along Indian Creek Road to Davis Road.
  - Tishawniik Hill Bikeway and Trail project extending along SR 96 from Camp Creek Road to Asip road.
  - 2<sup>nd</sup> Street bridge pedestrian improvements on south side of bridge in Happy Camp (2<sup>nd</sup> Street from Indian Creek to Buckhorn), including: 1) construction of ADA compliant access ramps at both sides of bridge; and, 2) improved pedestrian facilities at adjacent intersections to allow safe crossing to south side.
- **Improve exterior lighting near buildings and residential areas in Happy Camp, Orleans and Somes Bar along pedestrian facilities.**

Maps illustrating the locations of the proposed engineering strategies associated with intersection and pedestrian improvements are provided in Figures 16 and 17.

### Enforcement

- Involve local school districts in enforcing the use of helmets by students who bike to school.

### Emergency Response

- Organize Emergency Medical Responder (EMR) training programs in Happy Camp and Orleans, with the goal of having at least five (5) certified EMRs living in each location.<sup>19</sup>
- Offer EMT training course in Orleans, with the goal of increasing the number of local Paramedic EMTs.
- Upgrade rescue vehicle and equipment used by Orleans Volunteer Fire Department, allowing them to improve their ability to respond effectively to accidents in Orleans and Somes Bar. This should include purchasing of Jaws of Life equipment.
- Mandatory first aid / CPR training program for school crossing guards
- Offer Bystander Care First Aid / CPR training programs for interested Tribal members
- Work with local EMS and high schools to develop an Emergency Services Mentor Program for 11-12<sup>th</sup> grade students.

<sup>18</sup> ADA analysis will be required to ensure compliance. May include a warning system on bridge.

<sup>19</sup> An EMR is essentially a certified “First Responder” who is able to provide pre-hospitalization services until an ambulance arrives (similar to a police officer or firefighter arriving on the scene). EMR training programs are typically around 40 hours.

# Karuk Reservation Happy Camp Community Map

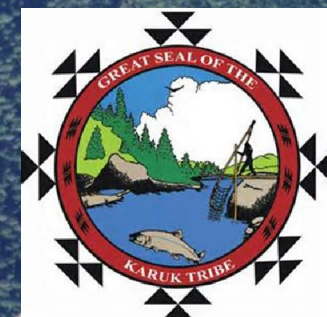
**Legend**

- ROUTES
- ▭ Karuk Off-Reservation Trust Land
- ▭ Karuk Reservation

**Intersection Improvements**  
1. Intersection Improvements – SR-96 at Park Way in Happy Camp  
Redesign intersection to include curb, sidewalk, and gutter at corners. Provide striping for crosswalks in a manner that will allow for safe crossing via planned (future) pedestrian facilities (e.g. Happy Camp Streetscape Project).

**Pedestrian / Bicyclist Improvements**  
2. Complete Street Project in Happy Camp at SR-96 (Davis Road to 4th Avenue)  
3. Creation of two pedestrian paths with stars, surface street treatment and separated path in Happy Camp from Happy Camp High School to Jacobs Way  
4. Creation of pedestrian path with stairs at Indian Creek / Jacobs Way in Happy Camp (from Parry's Market to Jacobs Road)  
5. 2nd Street bridge pedestrian improvements – improvement pedestrian

Figure 21: Proposed Engineering Safety Improvements in Happy Camp

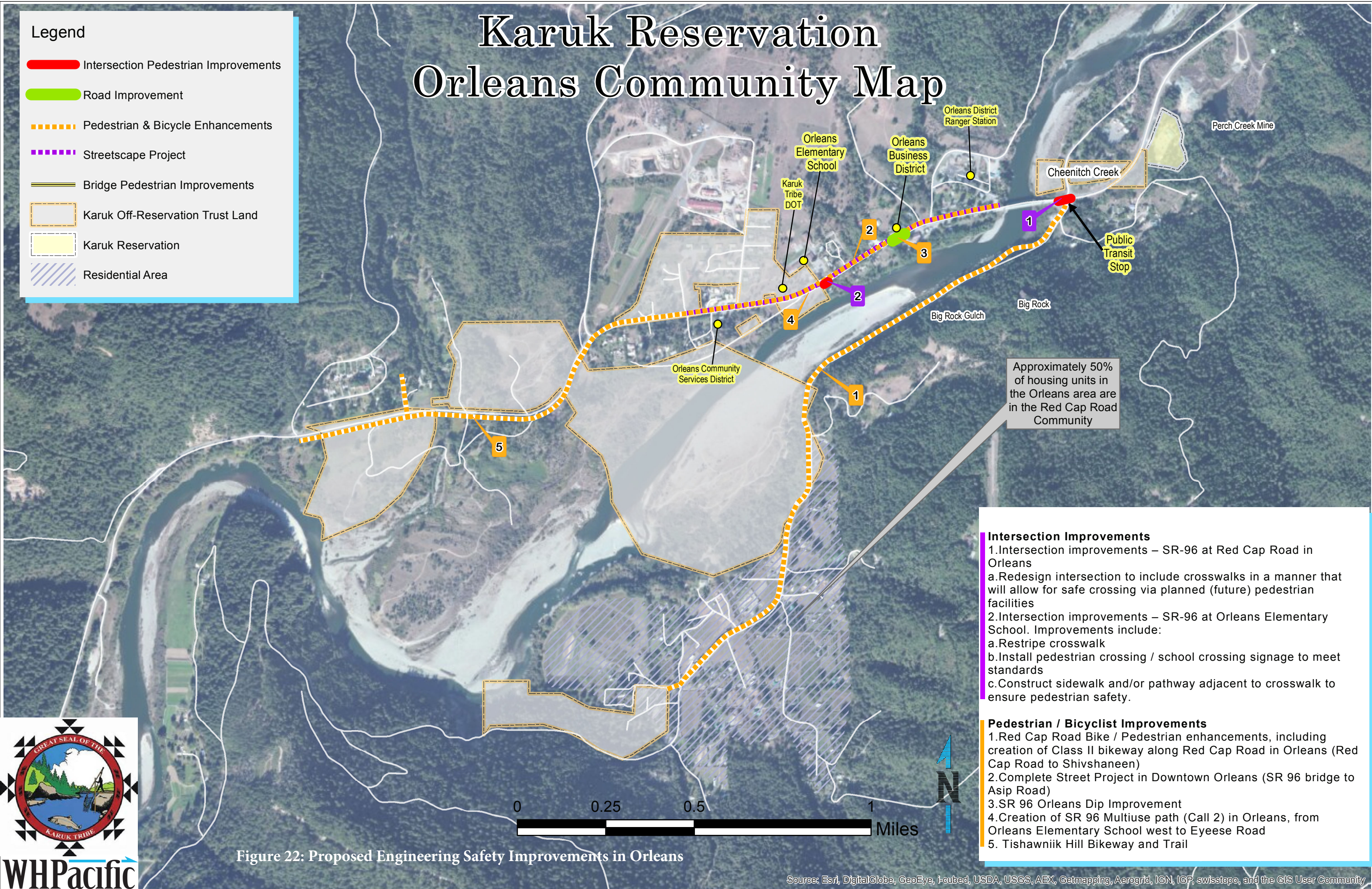


**WHPacific**

# Karuk Reservation Orleans Community Map

## Legend

- █ Intersection Pedestrian Improvements
- █ Road Improvement
- █ Pedestrian & Bicycle Enhancements
- █ Streetscape Project
- █ Bridge Pedestrian Improvements
- Karuk Off-Reservation Trust Land
- Karuk Reservation
- Residential Area



Approximately 50% of housing units in the Orleans area are in the Red Cap Road Community

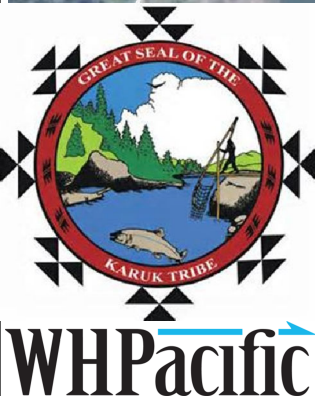
### Intersection Improvements

1. Intersection improvements – SR-96 at Red Cap Road in Orleans
  - a. Redesign intersection to include crosswalks in a manner that will allow for safe crossing via planned (future) pedestrian facilities
2. Intersection improvements – SR-96 at Orleans Elementary School. Improvements include:
  - a. Restripe crosswalk
  - b. Install pedestrian crossing / school crossing signage to meet standards
  - c. Construct sidewalk and/or pathway adjacent to crosswalk to ensure pedestrian safety.

### Pedestrian / Bicyclist Improvements

1. Red Cap Road Bike / Pedestrian enhancements, including creation of Class II bikeway along Red Cap Road in Orleans (Red Cap Road to Shivshaneen)
2. Complete Street Project in Downtown Orleans (SR 96 bridge to Asip Road)
3. SR 96 Orleans Dip Improvement
4. Creation of SR 96 Multiuse path (Call 2) in Orleans, from Orleans Elementary School west to Eyeese Road
5. Tishawniik Hill Bikeway and Trail

Figure 22: Proposed Engineering Safety Improvements in Orleans



**WHPacific**

User: abechnarz WHPacific Inc. Date: 6/25/2014 Time: 3:20:19 PM Path: L:\GIS\GIS\_Data\California\Karuk\_Tribal\Karuk\_Orleans\_Revise\_6\_16.mxd  
 Coordinate System: WGS 1984 Web Mercator Auxiliary Sphere Datum: WGS 1984 Units: Meter



### Speed Reduction

#### Background

Happy Camp, Orleans and Somes Bars are remote communities without law enforcement coverage. Local residents and regular visitors know that local roads are rarely patrolled by law enforcement. Consequently, speed limits are routinely exceeded, particularly along SR 96. In an effort to reduce speeding along SR 96, the Karuk Tribe requested use of speed radar notification signs from CHP. The radar-backed speed enforcement signs were installed through a coordinated effort between the Tribe and Caltrans District 1. Although the signs had an initial impact, motorists soon learned that the radar was not backed up by enforcement. The radar signs were soon disregarded, and drivers resumed speeding through the towns without consequence.

#### Goal

Decrease the number of speeding vehicles in Happy Camp, Orleans and Somes Bar.

#### Strategies

##### Education

- Work with local high schools to educate students on the dangers of speeding.
- Organize “slow down” campaign in Happy Camp and Orleans communities.
- Hold traffic safety booth at one or more Karuk community events.

##### Engineering

- Install flashing “school zone” lights to alert drivers of when children are present
- Assess whether speed humps would be a feasible option on certain local streets.

##### Enforcement

- Work with CHP to increase traffic enforcement along SR 96. Even intermittent enforcement (e.g. once a month or so) will likely have a positive effect, as drivers will soon learn that there is a possibility of being ticketed.<sup>20</sup>
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.
- Work with Karuk’s Judicial Branch to expand services to include a traffic court.<sup>21</sup>



**Figure 23:** Through a cooperative traffic calming effort of the Karuk Tribe and Caltrans D1, radar speed signs were installed in the community of Orleans, CA

<sup>20</sup> The Karuk Tribe has recently started meeting with CHP on a weekly basis. Working with Humboldt County, the Karuk Tribe is in the process of identifying funds to augment CHP’s budget to extend enforcement to Karuk communities.



### Emergency Response

- Organize Emergency Medical Responder (EMR) training programs in Happy Camp and Orleans, with the goal of having at least five (5) certified EMRs living in each location.<sup>22</sup>
- Offer EMT training course in Orleans, with the goal of increasing the number of local Paramedic EMTs.
- Upgrade rescue vehicle and equipment used by Orleans Volunteer Fire Department, allowing them to improve their ability to respond effectively to accidents in Orleans and Somes Bar. This should include purchasing of Jaws of Life equipment.

### Seatbelt Use

#### Background

Although the safety benefits of seat belts are widely known, Tribal communities typically have a lower rate of seat belt use than the general public. Native American use of seatbelts is 62% (2006), as compared to the national average of 82% (2007). Residents of rural communities often feel that seatbelts are unnecessary because they are only driving a short distance and/or are less likely to encounter other cars than in an urban environment. Some also assert that, in the event of an accident, they can escape their vehicle quicker if they are not belted in.

#### Goal

Increase the use of seatbelts and car seats among Karuk Tribal members.

#### Strategies

##### Education

- Conduct survey or focus group to determine cultural / behavioral factors behind low seatbelt compliance. Develop strategies specific to the identified factors.
- Work with area elementary schools and Karuk Head Start to inform children of the importance of seatbelts.
- Conduct a “car seat drive” to provide free car seats and booster seats, perform car seat inspections, and educate community members about car seat laws.
- Arrange CHP presentations to students and parents featuring testimonials



Figure 24: Seatbelts Save Lives!

<sup>21</sup> Currently, Karuk’s Judicial Branch only includes a Family Court. The Tribe may be able to apply for grant funding to form a traffic court.

<sup>22</sup> An EMR is essentially a certified “First Responder” who is able to provide pre-hospitalization services until an ambulance arrives (similar to a police officer or firefighter arriving on the scene).



### Engineering

- Install “Click it or Ticket” signs within each Tribal community (with fine amounts noted)

### Enforcement

- Work with CHP to increase traffic enforcement (including seatbelt compliance) along SR-96. Even intermittent enforcement (e.g. once a month or so) will likely have a positive effect, as drivers will soon learn that there is a possibility of being ticketed.
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.
- Conduct seatbelt checkpoint events.
- Work with Karuk’s Judicial Branch to expand services to include a traffic court.<sup>23</sup>

### Emergency Response

- Organize Emergency Medical Responder (EMR) training programs in Happy Camp and Orleans, with the goal of having at least five (5) certified EMRs living in each location.<sup>24</sup>
- Offer EMT training course in Orleans, with the goal of increasing the number of local Paramedic EMTs.
- Upgrade rescue vehicle and equipment used by Orleans Volunteer Fire Department, allowing them to improve their ability to respond effectively to accidents in Orleans and Somes Bar. This should include purchasing of Jaws of Life equipment.

## Alcohol Impaired Driving

### Background

A high percentage of accidents in Karuk communities are alcohol-related. When impaired drivers are in minor or single-vehicle accidents, the incidents frequently go unreported due to the lack of local law enforcement. It is likely that the actual percentage of alcohol-related accidents is even greater than the official number reported by the State of California.



**Figure 25: Sobriety Checkpoints can Discourage Drunk Driving**

<sup>23</sup> Currently, Karuk’s Judicial Branch only includes a Family Court. The Tribe may be able to apply for grant funding to form a traffic court.

<sup>24</sup> An EMR is essentially a certified “First Responder” who is able to provide pre-hospitalization services until an ambulance arrives (similar to a police officer or firefighter arriving on the scene). EMR training programs are typically around 40 hours – more than a simple first aid/CPR certification (8 hours), but considerably less than a full Emergency Medical Technician (EMT) program (120 hours).



### Goal

Reduce the number of alcohol-related accidents in Happy Camp, Orleans and Somes Bar.

### Strategies

#### Education

- Schedule speakers to visit schools with testimonials on the effects of drunk driving. Develop educational programs targeting specific age groups – children, teen drivers, adults, and elders.
- Enlist the help of the Karuk Substance Abuse Program (KSAP) and California American Indian Recovery Services (CAIRS) to develop targeted rehabilitation programs for DUI offenders.

#### Engineering

- Consider adding rumble strips to areas of SR-96 to alert drivers when they are leaving their lane.
- Install guardrail at areas where there is a high incidence of road departures

#### Enforcement

- Work with local tavern and restaurant in Happy Camp to educate employees about over-serving
- Work with CHP to increase traffic enforcement along SR-96. Even intermittent enforcement (e.g. once a month or so) will likely have a positive effect, as drivers will soon learn that there is a possibility of being ticketed. Periodically, establish sobriety checkpoints in targeted areas, in cooperation with CHP and/or county sheriff's departments.
- Install signage reminding motorists not to drive while intoxicated
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.
- Work with Karuk's Judicial Branch to expand services to include a traffic court.<sup>25</sup>

#### Emergency Response

- Organize Emergency Medical Responder (EMR) training programs in Happy Camp and Orleans, with the goal of having at least five (5) certified EMRs living in each location.<sup>26</sup>
- Offer EMT training course in Orleans, with the goal of increasing the number of local Paramedic EMTs.
- Upgrade rescue vehicle and equipment used by Orleans Volunteer Fire Department, allowing them to improve their ability to respond effectively to accidents in Orleans and Somes Bar. This should include purchasing of Jaws of Life equipment.

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<sup>25</sup> Currently, Karuk's Judicial Branch only includes a Family Court. The Tribe may be able to apply for grant funding to form a traffic court.

<sup>26</sup> An EMR is essentially a certified "First Responder" who is able to provide pre-hospitalization services until an ambulance arrives (similar to a police officer or firefighter arriving on the scene). EMR training programs are typically around 40 hours.



### Run off the Road Crashes

#### Background

SR 96 is a winding, two-lane highway that follows the curvature of the Klamath River. When traveling between communities, constant vigilance is needed to stay within travel lanes. A moment's distraction can easily result in a devastating off-road collision, or a head-on collision with the opposing lane. These types of crashes are also frequently associated with driving while intoxicated.



**Figure 26: SR 96 is a curvy two-lane highway without shoulders -- run off the road crashes are common.**

#### Goal

Reduce the number of crashes caused by lane departures.

#### Strategies

##### Education

- Organize educational resources on the dangers of “distracted driving” (e.g. texting, etc.)
- Safety belt education campaign will also address risks of death or injury from accidents without seatbelt use.

##### Engineering

- Work with Caltrans to assess areas along SR 96 where rumble strips might help alert drivers when they are leaving the confines of their traffic lane.
- Conduct shoulder widening / improvements in high risk areas of SR 96.
- Assess adequacy of reflectors / guardrail along high risk areas of SR 96.
- Work with Caltrans to improve signage warning drivers of curves or roadside hazards.

##### Enforcement

- Work with CHP to increase traffic enforcement along SR-96. Even intermittent enforcement (e.g. once a month or so) will likely have a positive effect, as drivers will soon learn that there is a possibility of being ticketed for unsafe driving practices.
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.
- Work with Karuk’s Judicial Branch to expand services to include a traffic court.<sup>27</sup>

<sup>27</sup> Currently, Karuk’s Judicial Branch only includes a Family Court. The Tribe may be able to apply for grant funding to form a traffic court.





### Emergency Response

- Organize Emergency Medical Responder (EMR) training programs in Happy Camp and Orleans, with the goal of having at least five (5) certified EMRs living in each location.
- Offer EMT training course in Orleans, with the goal of increasing the number of local Paramedic EMTs.
- Upgrade rescue vehicle and equipment used by Orleans Volunteer Fire Department, allowing them to improve their ability to respond effectively to accidents in Orleans and Somes Bar. This should include purchasing of Jaws of Life equipment.
- Work with CHP to increase the public safety presence along SR 96 (as noted above), resulting in shorter emergency response times in the event of a collision.

### Emergency Access / Evacuation Routes

#### Background

Karuk communities are situated in the heart of the Klamath National Forest – a high risk area for wildfires. Wildfires can strike suddenly, leaving very little time for evacuation. The remote location of Karuk communities leave few options for evacuation routes in the event of a wildfire or other emergency. SR 96 is typically the preferred evacuation route, when feasible; however, if SR 96 is shut down due to wildfire proximity, vehicle accidents, rockslides or another conditions, alternative egress routes must be used. Roads used as evacuation and/or emergency access routes must be in good condition, and wide enough to accommodate influxes of traffic as well as large vehicles (e.g. fire engines). Ishi Pishi Road serves as a bypass route when SR 96 is closed; however, the road is narrow with thin, deteriorated asphalt. Road improvements to certain areas of Ishi Pishi Road would improve its ability to function as an evacuation route. Ishi Pishi is a route than can also be used by the communities of Orleans and Somes Bar.



**Figure 27: Salmon Summit – The Salmon River Road is primarily a one lane paved route that often encounters large landslides during winter and winter events (Photo courtesy of Molli White)**

Other natural hazards that could prompt an evacuation include flooding and landslides. These types of disasters are very common in the areas around Karuk communities. Happy Camp is at high risk for an emergency evacuation in the event of flood or landslide. Indian Creek Road to Grey Back Road is the only possible evacuation route available to Happy Camp residents if SR 96 closes. Currently, Grey Back Road is not well-maintained by the facility owner during the critical winter months.



Another obstacle to safe evacuation during an emergency is a general lack of awareness of evacuation routes, procedures, and shelter locations. During the most recent wildfire event in summer 2013, many Karuk members were unclear on which egress routes were safe for travel. An inadequate communications network made it difficult to reach some Tribal members without arriving at their doorstep. Additionally, some Tribal members resisted evacuation orders by sheriff deputies, as they felt abandoned by local law enforcement in their daily lives and resented the sudden show of authority.

### Goal

Increase use of evacuation routes in the event of an emergency.

### Strategies

#### Education

- Education campaign about evacuation routes and emergency shelter locations

#### Engineering

- Road improvements / widening of Ishi Pishi Road (this road is used as a bypass during emergencies that shut down SR 96).
- Work with USFS to coordinate a winter maintenance agreement for Grey Back Road



Figure 28: Ishi Pishi Road

#### Enforcement

- Improved relations with law enforcement leading to increased compliance with evacuation orders in the event of an emergency.
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.

#### Emergency Response

- Create Emergency Communications Plan for notifying Karuk Tribal members in the event of an emergency and/or evacuation.
- Work with area law enforcement to ensure that a Karuk member accompanies officers during evacuation notification visits.



### Improved Data Collection on Vehicle Collisions

#### Background

The lack of law enforcement in the remote Karuk Communities of Happy Camp, Orleans, and Somes Bar has resulted in underreporting of vehicle collisions – particularly accidents without injuries, one car accidents, and alcohol-related collisions. Accurate collision data is needed to identify high-risk areas, assess collision factors, and develop targeted safety strategies. It will be difficult to evaluate the impact of the strategies outlined in this study without accurate and complete collision data for all Karuk communities.

#### Goal

Improve vehicle collision reporting rates in the Karuk communities of Happy Camp, Orleans, and Somes Bar.

#### Strategies

##### Education

- Education campaigns on mandatory accident reporting, including reporting methods.
- Educate Tribal emergency volunteers in accident reporting procedures. Cross-train Karuk staff with state forces on accident reporting procedures, ensuring accessibility to vehicle accident databases.

##### Engineering

- Provide Tribe with electronic accident reporting system aligned with NHTSA and MMUCC standards.

##### Enforcement

- Develop Traffic Records Coordinating Committee
- Karuk Safety Coordinator charged with maintaining accident database and communicating with area law enforcement agencies (sharing of agency data)
- Develop standardized system for collecting, storing, and sharing crash data
- Research grant opportunities to fund hiring of one or more Tribal police officers, or alternately, work with county sheriff departments to establish resident deputies in Happy Camp and Orleans.



**Figure 29: A software system aligned with NHTSA and MMUCC accident reporting standards would help the Tribe improve accident reporting.**



### Emergency Response

- Publicize 24-hour reporting line and online reporting options to encourage citizens to report accidents.
- Improve cell phone coverage to allow easier reporting of accidents / calls for emergency assistance.

## IV-B. Implementation

An implementation plan for the strategies associated with each emphasis area is provided in the following pages. Information contained in the matrix is summarized from Section IV of this document. The matrix should be referenced in conjunction with Section IV when executing strategies for safety improvements. Section IV general contains a greater level of detail on the strategies associated with emphasis area, whereas the matrix contains information specific to implementation, performance measures and monitoring. For each emphasis area, the matrix outlines:

- Strategic Linkage
- Objective
- Success Indicators
- Strategies under each of the four (4) Es: Education, Enforcement, Engineering, and Emergency Services, including:
  - Target Outputs
  - Responsible Parties
  - Date(s) of Completion
  - Performance Measures
  - Monitoring and Evaluation

The implementation matrix is based on the “Emphasis Area Table” recommended by FHWA in their publication *Developing Safety Plans: A Manual for Local Rural Road Owners* (2012).

| Emphasis Area   |  |  | Strategic Linkage  |  |  |   |
|---|--|--|--|--|--|---|
| Intersection Safety   |  |  | Multiple intersection safety projects were identified in the Middle Klamath River Community Transportation Plan, all of which had major safety issues.   |  |  |   |
| Objectives  |  |  | Success Indicators   |  |  |   |
| Reduce the number of pedestrian / vehicle conflicts in Happy Camp and Orleans |  |  | Due to the lack of law enforcement in the rural Karuk communities, the number of accidents and/or citations are not valid indicators. Therefore, community feedback will be used as a success indicator. |  |  |   |
|   | Strategies   | Target Output  | Responsible Parties  | Date of Completion   | Performance Measures   | Monitoring and Evaluation   |
| <b>Education</b>  | 1) Work with local school districts to create a "safe crossing" campaign<br>2) Organize targeted education campaign on safety problems at "high risk" intersections.   | 1) Production of "safe crossing" campaign flyers and signage.<br>2) Educational session on safe crossing practices at local schools.<br>2) Traffic safety booth provided at one or more Karuk community events.  | Karuk Transportation Department<br>Karuk Education Department  | Ongoing  | 1) Public observations -- determine impressions of intersection safety following implementation of strategies under four "Es."<br>2) Achievement of target outputs.  | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' observations on intersection safety in HC, Orleans and SB; results will be used to determine whether conditions have improved. If conditions have not improved, additional strategies will be developed.            |
| <b>Enforcement</b>  | 1) Improve enforcement before and after school hours by providing school crossing guards (once intersection improvements are in place).<br>2) Research grant opportunities to fund additional public safety resources. | 1) Crossing guards at every elementary school in Karuk communities (following intersection improvements)<br>2) Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants.<br>3) Work with Karuk's Judicial Branch to expand services to include a traffic court. | Karuk Education Department   | Ongoing  | 1) Public observations -- determine impressions of intersection safety following implementation of strategies under four "Es."<br>2) Achievement of target outputs.  | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' observations on intersection safety conditions in HC, Orleans and SB; results will be used to determine whether conditions have improved. If conditions have not improved, additional strategies will be developed. |
| <b>Engineering</b>  | Intersection Improvements along SR 96 at Orleans Elementary School, Red Cap Road, and Park Way in Happy Camp, including "complete streets" design in areas identified as unsafe.                                       | 1) Provide a well-marked crosswalks at targeted intersections in Orleans and Happy Camp.<br>2) Implement "complete streets" concepts to all pedestrian and bicyclist sites.<br>3) Conduct a sign retroreflectivity study   | Karuk Transportation Department<br>Caltrans  | 2015 Project Planning<br>2016-2020 PS&E Development and Implementation | 1) Public observations -- determine impressions of intersection safety following implementation of strategies under four "Es."<br>2) Achievement of target outputs.<br>3) Increased use of crosswalks by pedestrians to cross SR 96. | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' observations on intersection safety conditions in HC, Orleans and SB; results will be used to determine whether conditions have improved. If conditions have not improved, additional strategies will be developed. |
| <b>EMS</b>  | 1) Organize EMR and Paramedic EMT training programs.<br>2) Improve emergency response capabilities in Orleans and Somes Bar.<br>3) Mandatory first aid/CPR training program for crossing guards.                       | 1) Minimum of five certified EMRs living in Orleans and Happy Camp<br>2) New rescue vehicle and upgraded rescue equipment for Orleans Volunteer Fire Department (also serving SB)<br>3) Work with local school districts to institute mandatory first aid/CPR requirement for crossing guards.         | Karuk Health Clinics / IHS<br>Karuk Education Department   | Ongoing  | Improved emergency response times near HC, Orleans and SB.   | Karuk Transportation Department will work with Happy Camp Volunteer Ambulance and Orleans Volunteer Fire Department to determine the current average emergency response time, and set an improvement goal.  |

| Emphasis Area   |   |   | Strategic Linkage   |                    |   |  |
|---|---|---|---|--------------------|---|--|
| Speed Reduction   |   |   | Identified as the #4 transportation concern in the Middle Klamath River Community Transportation Plan survey.   |                    |   |  |
| Objectives  |   |   | Success Indicators  |                    |   |  |
| Decrease the number of speeding vehicles in Happy Camp, Orleans and Somes Bar |   |   | Due to the lack of law enforcement in the rural Karuk communities, the number of speeding citations alone is not a valid indicator. Therefore, community feedback will be used as a success indicator. Speeding citations are expected to increase initially (as enforcement improves), then subsequently decrease (as strategies take effect). |                    |   |  |
|   | Strategies  | Target Output   | Responsible Parties   | Date of Completion | Performance Measures  | Monitoring and Evaluation  |
| <b>Education</b>  | 1) High school program to educate students on the dangers of speeding.<br>2) Organize "slow down" campaign  | 1) Assembly conducted at each area high school on dangers of speeding.<br>2) Production of "slow down" campaign flyers and signage.<br>3) Traffic safety booth provided at one or more Karuk community events.  | Karuk Education Department<br><br>Karuk Transportation Department   | 2015 / Ongoing     | 1) Public observations -- determine whether Tribal members have witnessed fewer speeding motorists following implementation of strategies under four "Es."<br>2) Number of speeding citations issued (should increase initially as enforcement improves, then decrease).<br>3) Achievement of target outputs.   | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' observations on speeding conditions in HC, Orleans and SB; results will be used to determine whether conditions have improved. If conditions have not improved, additional strategies will be developed. |
| <b>Engineering</b>  | 1) Install flashing "school zone" lights<br>2) Assess feasibility of speed humps on certain local streets   | 1) School zone flashing lights near Orleans Elementary School, Happy Camp Elementary School, and Somes Bar School<br>2) Speed hump feasibility assessment document, covering HC, Orleans and SB.  | Karuk Transportation Department   | 2015 / Ongoing     | 1) Public observations -- determine whether Tribal members have witnessed fewer speeding motorists following implementation of strategies under four "Es."<br>2) Number of speeding citations issued (should increase initially as enforcement improves, then decrease).<br>3) Achievement of target outputs.   | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' observations on speeding conditions in HC, Orleans and SB; results will be used to determine whether conditions have improved. If conditions have not improved, additional strategies will be developed. |
| <b>Enforcement</b>  | 1) Request speed limit reduction for SR 96 in Happy Camp and Orleans;<br>2) Organize series of meetings with CHP to increase traffic enforcement along SR-96<br>3) Research grant opportunities to fund additional public safety resources. | limits in Happy Camp and Orleans to 25 mph / 20 mph in school zone; 2) Improved CHP presence along SR-96 in HC, Orleans and SB;<br>3) Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants.<br>4) Work with Karuk's Judicial Branch to expand services to include a traffic court. | Karuk Transportation Department   | 2016-2018          | 1) Public observations -- determine whether Tribal members have witnessed fewer speeding motorists following implementation of strategies under four "Es."<br>2) Number of speeding citations issued (should increase initially as enforcement improves, then decrease).<br>3) Number of grants pursued for public safety funds.<br>4) Achievement of target outputs. | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' observations on speeding conditions in HC, Orleans and SB; results will be used to determine whether conditions have improved. If conditions have not improved, additional strategies will be developed. |
| <b>Emergency Response</b>   | 1) Organize EMR and Paramedic EMT training programs.<br>2) Improve emergency response capabilities in Orleans and Somes Bar.  | 1) Minimum of five certified EMRs in HC and Orleans<br>2) New rescue vehicle and upgraded rescue equipment for Orleans Volunteer Fire Department (also serving SB)  | Karuk Clinics / IHS Program Staff<br>Happy Camp Community Emergency Response Team (CERT)  | 2015 / Ongoing     | Improved emergency response times near HC, Orleans and SB.  | Karuk Transportation Department will work with Happy Camp Volunteer Ambulance and Orleans Volunteer Fire Department to determine the current average emergency response time, and set an improvement goal.   |

| Emphasis Area   |  | Strategic Linkage   |  |   |   |   |
|---|--|---|--|---|---|---|
| Pedestrian and Bicyclist Safety   |  | Bicyclist safety, particularly of Karuk children, was identified as a community concern in the Middle Klamath River Community Transportation Plan.  |  |   |   |   |
| Objectives  |  | Success Indicators  |  |   |   |   |
| Create safer conditions for bicyclists in Orleans, particularly near Orleans Elementary School. |  | Due to the lack of law enforcement in the rural Karuk communities, the number of accidents and/or citations are not valid indicators. Therefore, community feedback will be used as a success indicator.                              |  |   |   |   |
|   | Strategies   | Target Output   | Responsible Parties  | Date of Completion                              | Performance Measures  | Monitoring and Evaluation   |
| <b>Education</b>  | 1) Annual Bike Rodeos<br>2) Helmet distribution<br>3) Develop educational materials highlighting pedestrian and bicyclist safety guidelines<br>4) Elders presentation on "Safe Practices for Mature Motorists"<br>5) Work with IHS to develop Injury Prevention Program                        | Increase knowledge of safe bicycling and pedestrian practices among Tribal members.   | Karuk Education Coordinator (work with local school district)<br>Karuk Transportation Department | Ongoing   | 1) Achievement of target outputs.<br>2) Number of students that have completed bike rodeo<br>3) Number of helmets distributed<br>4) Number of elders who attended "Safe Practices for Mature Motorists" session | Karuk Transportation Department will monitor strategy implementation and target outputs. Additionally, the Karuk Transportation Department will publish a community survey in December 2016 to assess Tribal members' knowledge of safe walking and biking practices, and helmet use.   |
| <b>Enforcement</b>  | Involve local school districts in enforcing the use of helmets by students who bike to school.   | 100% of students bicycling to school wearing helmets.   | Karuk Education Coordinator (work with local school district)                                    | Ongoing   | 1) Achievement of target outputs.<br>2) Percentage of student bicyclists wearing helmets  | Karuk Trans. Dept. to monitor strategy implementation & target outputs. Additionally, Karuk Trans. Dept. to publish a community survey in Dec. 2016 to assess Tribal members' knowledge of safe walking and biking practices, and helmet use. Local schools will be consulted to determine helmet use rates among student bicyclists.   |
| <b>Engineering</b>  | Bike lane and path improvements  | 1) Bicycle improvements along Red Cap Road<br>2) Creation of multiuse path along SR 96<br>3) Bridge improvements to allow bike passage.<br>4) Complete street projects<br>5) Improved exterior lighting                               | Karuk Transportation Department  | Output 1 - May 2015; Output 2 & 3 - 2015 - 2020 | 1) Achievement of target outputs.<br>2) Miles of bike lanes / miles of paved or graded pedestrian paths.  | Karuk Trans. Dept. will monitor strategy implementation and target outputs. Additionally, the Karuk Trans. Dept. will publish a community survey in Dec. 2016 to assess Tribal members' impressions of pedestrian / bicycle resources in HC, Orleans and SB. Karuk Planning Department will manage the noted bike lane and path improvements. "Before and after" mileage comparisons will be conducted. |
| <b>EMS</b>  | Paramedic EMT training.<br>2) Improve emergency response capabilities in Orleans and Somes Bar.<br>3) First aid/CPR training pgm for crossing guards<br>4) Organize bystander care first aid / CPR training programs for interested members<br>5) Develop an Emergency Services Mentor Program | 1) Minimum of 5 certified EMRs in Orleans and HC<br>2) New rescue vehicle and upgraded rescue equipment for Orleans Fire Dept.<br>3) Work with local school districts to institute mandatory first aid/CPR cert. for crossing guards. | Karuk Health Clinics / IHS   | Ongoing   | Improved emergency response times near HC, Orleans and SB.  | Karuk Transportation Department will work with Happy Camp Volunteer Ambulance and Orleans Volunteer Fire Department to determine the current average emergency response time, and set an improvement goal.  |

| Emphasis Area   |  |  | Strategic Linkage   |                    |  |  |
|---|--|--|---|--------------------|--|--|
| Seatbelt Use  |  |  | Improved seatbelt compliance will create safer conditions for motorists in the event of a collision. Karuk staff report low level of seatbelt use by community members. Nationally, Tribal communities have a much lower than average level of seatbelt compliance. |                    |  |  |
| Objectives  |  |  | Success Indicators  |                    |  |  |
| Increase the use of seatbelts and car seats among Karuk Tribal members. |  |  | Increased self-reported seatbelt and car seat use by Tribal members.  |                    |  |  |
|   | Strategies   | Target Output  | Responsible Parties   | Date of Completion | Performance Measures                                       | Monitoring and Evaluation  |
| <b>Education</b>  | 1) Seatbelt survey<br>2) Seatbelt education campaign for students<br>3) Car seat drive<br>4) Click-it-or-Ticket Campaign<br>5) CHP presentations to students and parents with testimonials                   | Increase seatbelt use among Karuk Tribal members to 90%.   | Karuk Transportation Department   | 2015 / Ongoing     | Self-reported seatbelt and car seat use by Tribal members. | "Before and after" surveys assessing changes in self-reported seatbelt and car seat use.   |
| <b>Enforcement</b>  | 1) Work with CHP to increase traffic enforcement (including seatbelt compliance) along SR 96<br>2) Seatbelt checkpoint events<br>3) Research grant opportunities to fund additional public safety resources. | Increase number of seatbelt warnings and citations in HC, Orleans and SB. Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants.<br>Work with Karuk's Judicial Branch to expand services to include a traffic court. | Karuk Transportation Department   | 2015 / Ongoing     | Number of seatbelt warnings and citations.                 | Karuk Transportation Department will work with CHP to track the number of seatbelt citations and tickets over a one-year period.   |
| <b>Engineering</b>  | Install "Click it or Ticket" signs within each Karuk Community, including fine amount for seatbelt violations.   | "Click it or Ticket" signs along roads in HC, Orleans, SB and Yreka (Karuk housing area)   | Karuk Transportation Department   | December 2015      | Self-reported seatbelt and car seat use by Tribal members. | "Before and after" surveys assessing changes in self-reported seatbelt and car seat use.   |
| <b>EMS</b>  | 1) Organize EMR and Paramedic EMT training programs.<br>2) Emergency response capabilities in Orleans and Somes Bar  | 1) Minimum of five certified EMRs in HC and Orleans<br>2) New rescue vehicle and upgraded rescue equipment for Orleans Volunteer Fire Department (also serving SB)   | Karuk Clinics / IHS Program Staff<br>Happy Camp Community Emergency Response Team (CERT)  | 2015 / Ongoing     | Improved emergency response times near HC, Orleans and SB. | Karuk Transportation Department will work with Happy Camp Volunteer Ambulance and Orleans Volunteer Fire Department to determine the current average emergency response time, and set an improvement goal. |



| Emphasis Area  |   |  | Strategic Linkage  |                    |   |  |
|--|---|--|--|--------------------|---|--|
| Alcohol-Impaired Driving   |   |  | Alcohol is associated with a high percentage of accidents in Karuk communities. Reducing the number of DUIs is in line with the Tribe's Alcohol and Other Drug (AOD) services program.   |                    |   |  |
| Objective  |   |  | Success Indicators   |                    |   |  |
| Reduce the number of alcohol-related accidents in Happy Camp, Orleans and Somes Bar. |   |  | Due to the lack of law enforcement in the rural Karuk communities, the number of accidents and/or DUIs will not be valid indicators initially. DUI citations are expected to increase initially (due to improved law enforcement), before eventually declining (as strategies are successfully implemented). |                    |   |  |
|  | Strategies  | Target Output  | Responsible Parties  | Date of Completion | Performance Measures  | Monitoring and Evaluation  |
| <b>Education</b>   | 1) School speakers on dangers of drunk driving<br>3) Targeted rehab programs for DUI offenders  | 1) Increased awareness of the dangers of drunk driving among Tribal youth.<br>2) Reduced incidence of repeat DUI offenders.  | Karuk Education Coordinator<br>(work with local school district)   | 2015 / Ongoing     | 1) Quiz to assess youth awareness of dangers of drunk driving; 2) Analysis of repeat DUI incidents in and near Karuk communities.   | Karuk Transportation Department will monitor strategy implementation and target outputs.   |
| <b>Enforcement</b>   | 1) Work with local HC Tavern to prevent over serving<br>2) Periodic sobriety checkpoints<br>3) Research grant opportunities to fund additional public safety resources.   | Consequences consistently enforced to prevent intoxicated motorists from driving before an accident occurs. Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants.<br>Work with Karuk's Judicial Branch to expand services to include a traffic court. | Karuk Health Clinic  | 2015 / Ongoing     | Number of DUI citations and alcohol-related crashes. The number of citations is expected to increase initially due to improved enforcement; however, they should subsequently decrease. | Karuk Transportation Department will monitor strategy implementation and target outputs.   |
| <b>Engineering</b>   | 1) Signage reminding motorists of the penalties of drunk driving<br>2) Institute strategies to prevent run-off-the-road crashes (see emphasis area), such as rumble strips and guardrail along high risk areas of SR 96 | Fewer alcohol-related crashes, particularly those involving injuries.  | Karuk Transportation Department  | 2015 / Ongoing     | Number and characteristics of alcohol-related crashes.  | Karuk Transportation Department will monitor strategy implementation and target outputs.   |
| <b>EMS</b>   | 1) Organize EMR and Paramedic EMT training programs.<br>2) Improve emergency response capabilities in Orleans and Somes Bar.  | 1) Minimum of five certified EMRs in HC and Orleans<br>2) New rescue vehicle and upgraded rescue equipment for Orleans Volunteer Fire Department (also serving SB)   | Karuk Clinics / IHS Program Staff<br>Happy Camp Community Emergency Response Team (CERT)   | 2015 / Ongoing     | Emergency response times near HC, Orleans and SB.   | Karuk Transportation Department will work with Happy Camp Volunteer Ambulance and Orleans Volunteer Fire Department to determine the current average emergency response time, and set an improvement goal. |

| Emphasis Area  |   |   | Strategic Linkage   |                    |  |  |
|--|---|---|---|--------------------|--|--|
| Run off the Road Crashes                               |   |   | Run off the road crashes are common along SR 96, due to the winding nature of the two-lane highway and inadequate countermeasures to prevent lane departures. Reckless / inattentive driving was the second-highest transportation concern among survey respondents for the Middle Klamath River Community Transportation Plan. Furthermore, the need for warning signs, guard rails, marking, etc. was also listed as a major concern in the Middle Klamath River Community Transportation Plan. |                    |  |  |
| Objective  |   |   | Success Indicators  |                    |  |  |
| Reduce the number of crashes caused by lane departures |   |   | Fewer reported run off the road crashes involving property damage, injury and/or death. Caltrans accident data are more likely to be accurate for these types of crashes, as emergency response would typically be required.  |                    |  |  |
|  | Strategies  | Target Output   | Responsible Parties   | Date of Completion | Performance Measures   | Monitoring and Evaluation  |
| Education  | 1) Organize educational resources on the dangers of distracted driving.<br>2) Safety belt education campaign will also address risks of death or injury from accidents without seatbelt use.                                    | 1) Karuk flyer on avoiding distractions while driving.<br>2) Tribal newsletter articles<br>3) Presentations involving CHP, testimonials   | Karuk Transportation Department   | 2015 / Ongoing     | Number of reported run-off-the-road crashes in HC, Orleans, and SB, as well as the sections of SR 96 that connect Karuk communities (including Yreka). Note: Accident rates may increase initially due to improved crash reporting rates (as detailed under a separate emphasis area). | Karuk Transportation Department will monitor strategy implementation and target outputs.   |
| Enforcement  | Organize series of meetings with CHP to increase traffic enforcement along SR-96. Research grant opportunities to fund additional public safety resources.  | Improved CHP presence along SR 96, particularly near HC, Orleans and SB. Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants.<br>Work with Karuk's Judicial Branch to expand services to include a traffic court. | Karuk Transportation Department   | 2015               | Number of reported run-off-the-road crashes in HC, Orleans, and SB, as well as the sections of SR 96 that connect Karuk communities (including Yreka). Note: Accident rates may increase initially due to improved crash reporting rates (as detailed under a separate emphasis area). | Karuk Transportation Department will monitor strategy implementation and target outputs.   |
| Engineering  | Work with Caltrans to assess and construct safety improvements along high risk areas of SR 96, including rumble strips, shoulder widening / improvements, reflectors, guardrail, and warning signs.                             | Implementation of targeted countermeasures at highest risk areas for run-off-the-road accidents.  | Karuk Transportation Department   | 2016 / Ongoing     | Number of reported run-off-the-road crashes in HC, Orleans, and SB, as well as the sections of SR 96 that connect Karuk communities (including Yreka). Note: Accident rates may increase initially due to improved crash reporting rates (as detailed under a separate emphasis area). | Karuk Transportation Department will monitor strategy implementation and target outputs.   |
| EMS  | 1) Organize EMR training programs<br>2) Emergency response capabilities in Orleans and Somes Bar<br>3) Increase CHP enforcement along SR 96 to provide quicker accident response times.<br>4) Improved cell phone connectivity. | 1) Minimum of five certified EMRs in HC and Orleans<br>2) New rescue vehicle and upgraded rescue equipment for Orleans Volunteer Fire Department (also serving SB)  | Karuk Clinics / HIS Program Staff<br>Happy Camp Community Emergency Response Team (CERT)  | 2015 / Ongoing     | Improved emergency response times near HC, Orleans and SB.   | Karuk Transportation Department will work with Happy Camp Volunteer Ambulance and Orleans Volunteer Fire Department to determine the current average emergency response time, and set an improvement goal. |

| Emphasis Area  |  |  | Strategic Linkage  |   |   |   |
|--|--|--|--|---|---|---|
| Emergency Access / Evacuation Routes                                       |  |  | The Karuk Tribe has sought to improve public safety coverage in Orleans, Happy Camp and Somes Bar for years.   |   |   |   |
| Objective  |  |  | Success Indicators   |   |   |   |
| Increase use of designated evacuation routes in the event of an emergency. |  |  | Assessment following next evacuation event to determine if strategies resulted in improved knowledge of emergency access procedures and compliance among Tribal members. |   |   |   |
|  | Strategies   | Target Output  | Responsible Parties  | Date of Completion  | Performance Measures  | Monitoring and Evaluation   |
| <b>Education</b>   | Education campaigns on evacuation routes in the event of an emergency.   | 100% of Tribal members informed of emergency evacuation procedures   | Karuk Transportation Department<br>Karuk Emergency Preparedness Department   | 2015 / Ongoing  | 1) Percent of Tribal members aware of evacuation routes and procedures<br>2) Percent of Tribal members reporting positive experiences with local law enforcement during emergency situations / evacuations. | Conduct survey of Tribal members in HC, Orleans and SB to determine: 1) knowledge of evacuation routes and procedures, and 2) impressions of law enforcement following implementation of the listed strategies. |
| <b>Enforcement</b>   | Improved relations with law enforcement leading to increase compliance with evacuation orders in the event of an emergency. Research grant opportunities to fund additional public safety resources. | Majority of Tribal members reporting positive experiences with local law enforcement in regard to emergency communications and evacuations. Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants. | Karuk Transportation Department<br>Karuk Emergency Preparedness Department   | Ongoing   | 1) Percent of Tribal members aware of evacuation routes and procedures<br>2) Percent of Tribal members reporting positive experiences with local law enforcement during emergency situations / evacuations. | Conduct survey of Tribal members in HC, Orleans and SB to determine: 1) knowledge of evacuation routes and procedures, and 2) impressions of law enforcement following implementation of the listed strategies. |
| <b>Engineering</b>   | Road improvements / widening of Ishi Pishi Road. Work with USFS to coordinate a winter maintenance agreement for Grey Back Rd in HC.   | Improve Ishi Pishi Road to permit year-round use, and safely accommodate higher levels of traffic during emergency evacuations   | Karuk Transportation Department  | 2017 - coordination with owner agencies - PSR development ongoing | 1) Ishi Pishi Road's capacity to safely accommodate two lanes of travel, use by large emergency vehicles<br>2) Ishi Pishi Road open for year-round use  | Verification of road improvements   |
| <b>EMS</b>   | 1) Emergency Communications Plan<br>2) Karuk liaison to accompany law enforcement officers during evacuation notification visits.  | 1) 100% of Tribal members informed of emergency evacuation procedures<br>2) Majority of Tribal members reporting positive experiences with local law enforcement in regard to emergency communications and evacuations.                      | Karuk Transportation Department<br>Karuk Emergency Preparedness Department   | 2015 / Ongoing  | 1) Percent of Tribal members aware of evacuation routes and procedures<br>2) Percent of Tribal members reporting positive experiences with local law enforcement during emergency situations / evacuations. | Conduct survey of Tribal members in HC, Orleans and SB to determine: 1) knowledge of evacuation routes and procedures, and 2) impressions of law enforcement following implementation of the listed strategies. |

| Emphasis Area   |   |   | Strategic Linkage   |                    |  |   |
|---|---|---|---|--------------------|--|---|
| Improved Data Collection on Vehicle Collisions  |   |   | Karuk and Caltrans staff acknowledge that "official" crash data is incomplete along remote areas of SR 96 (including Happy Camp, Orleans and Somes Bar). Accurate crash data is needed to evaluate the effectiveness of transportation safety improvements. |                    |  |   |
| Objective   |   |   | Success Indicators  |                    |  |   |
| Improve vehicle collision reporting rates in the Karuk communities of Happy Camp, Orleans and Somes Bar |   |   | Improved accident reporting rates in remote communities of Happy Camp, Orleans, Somes Bar, and areas of SR 96.  |                    |  |   |
|   | Strategies  | Target Output   | Responsible Parties   | Date of Completion | Performance Measures   | Monitoring and Evaluation   |
| <b>Education</b>  | 1) Education campaign on mandatory accident reporting.<br>2) Cross-train Karuk staff with state forces on accident reporting procedures, ensuring accessibility to vehicle accident databases.  | Increased public awareness of accident reporting requirements   | Karuk Transportation Department   | 2015 / Ongoing     | Improved accident reporting rates in HC, Orleans, SB, and along SR 96. | Karuk Safety Coordinator and Traffic Records Coordinating Committee will monitor accident reporting trends, in cooperation area public safety agencies. |
| <b>Enforcement</b>  | Provide staff and administrative support for accident reporting and collision trends, such as a law enforcement and public securities division. Implement judicial oversight and regulations, traffic violations, and penalties. Research grant opportunities to fund additional public safety resources. | 1) Create Karuk Traffic Records Coordinating Committee<br>2) Create a Karuk Safety Coordinator position, responsible for coord. of transp. safety campaigns, coord. w/ pattern agencies, and maintaining accident database.<br>3) Coord. with California State Transportation Agency (CSTA) to develop policy for standardizing collection, storage and input of crash data.<br>4) Grant prospect list for public safety funding resources; pursuit of a minimum of two (2) grants. | Karuk Transportation Department   | 2015 / Ongoing     | Improved accident reporting rates in HC, Orleans, SB, and along SR 96. | Karuk Safety Coordinator and Traffic Records Coordinating Committee will monitor accident reporting trends, in cooperation area public safety agencies. |
| <b>Engineering</b>  | Provide technological resources for improved accident data tracking.  | Implement electronic accident reporting capabilities.   | Karuk Transportation Department   | Ongoing            | Improved accident reporting rates in HC, Orleans, SB, and along SR 96. | Karuk Safety Coordinator and Traffic Records Coordinating Committee will monitor accident reporting trends, in cooperation area public safety agencies. |
| <b>EMS</b>  | Improve motorists, pedestrians, and bystanders' ability to report accidents and contact emergency assistance in the event of an accident.   | 1) Promote community use of 24-hour accident reporting line / website.<br>2) Fewer gaps in cell phone coverage in HC, Orleans and SB, and along SR 96.  | Karuk Transportation Department<br>Karuk Emergency Preparedness Department  | 2015 / Ongoing     | Improved accident reporting rates in HC, Orleans, SB, and along SR 96. | Karuk Safety Coordinator and Traffic Records Coordinating Committee will monitor accident reporting trends, in cooperation area public safety agencies. |