

NATIVE VILLAGE OF EKWOK

2019-2024 FINAL ADOPTED

TRIBAL TRANSPORTATION SAFETY PLAN

August 2019

Prepared for:

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ACRONYMS AND ABBREVIATIONS

°F	Degrees Fahrenheit
%	Percent
AHSO	Alaska Highway Safety Office
ATV	All-terrain vehicle
AVEC	Alaska Village Electric Co-Op
BBAHC	Bristol Bay Area Health Corporation
BBNA	Bristol Bay Native Association
BIA	Bureau of Indian Affairs
Bristol	Bristol Engineering Services Company, LLC
BUILD	Better Utilizing Investments to Leverage Development
CDC	Centers for Disease Control and Prevention
CDQ	Community development quota
Community	Ekwok, Alaska
Council	Native Village of Ekwok
DCCED	Department of Commerce, Community, and Economic Development
DHSS	Alaska Department of Health and Social Services
DOT&PF	Department of Transportation and Public Facilities
DUI	Driving under the influence
DWI	Driving while impaired
EMS	Emergency Medical Services
FARS	Fatality Analysis Reporting
FAST	Fixing America's Surface Transportation
FHWA	Federal Highway Administration
FLTP	Federal Lands Transportation Program
HBRRP	Highway Bridge Replacement and Rehabilitation Program
HES	Hazard Elimination Program
HPR	Highway Planning and Research
HSIP	Highway Safety Improvement Program
HSO	Highway Safety Office
HSP	Highway Safety Plan
in.	Inches
ITS	Intelligent Transportation System

LTAP	Local Technical Assistance Program
mph	Miles per hour
NHI	National Highway Institute
NHTSA	National Highway Traffic Safety Administration
RSA	Road Safety Audit
SHSP	Strategic Highway Safety Plan
SMS	Safety Management Systems
STIP	Statewide Transportation Improvement Program
STP	Surface Transportation Program
THSIP	Tribal Highway Safety Improvement Program
TTAP	Tribal Technical Assistance Program
TTP	Tribal Transportation Program
TTPSF	Tribal Transportation Program Safety Funds
TTSP	Tribal Transportation Safety Plan
VPO	Village Police Officer
VPSO	Village Public Safety Officer
WRCC	Western Regional Climate Center

1.0 INTRODUCTION

On behalf of the Native Village of Ekwok (Council), Bristol Bay Native Association (BBNA), by means of a professional service agreement with Bristol Engineering Services Company, LLC (Bristol), developed this Strategic Tribal Transportation Safety Plan (TTSP) for Ekwok, Alaska (Community). This TTSP was developed through the Federal Lands Transportation Program (FLTP) using Tribal Transportation Program Safety Funds (TTPSF). Together, our team is building on information from the Federal Office of Highway Safety, the Alaska Highway Safety Office (AHSO), and our partner communities to develop a strong message of Highway Safety for our Tribes within the Bristol Bay Region.

BBNA is an Alaska Native Regional Non-profit Corporation and a tribal consortium. Incorporated under state law, corporation bylaws are structured as a pure tribal consortium. The 31 federally recognized tribes in the Bristol Bay region make up the members of the non-profit corporation. The 31 tribes are represented on the BBNA Board of Directors by their elected tribal presidents, or the president's designee (who must be a tribal member). Therefore, BBNA is directly controlled by the tribal governments it represents. BBNA is a federally recognized tribal consortium for contracting purposes and is a "Tribal Organization" as defined in the Indian Self-Determination and Education Assistance Act. BBNA operates dozens of grants and contracts under various types of eligibility. Eligibility of each grant is controlled by the regulations and authorizing legislation of each particular funding source. BBNA operates both Indian and non-Indian programs.

This TTSP has been coordinated with the Alaska Strategic Highway Safety Plan (SHSP), developed in accordance with Federal Highway Administration (FHWA) standards, and was outlined in reference to the FHWA manual titled "Developing Safety Plans: A Manual for Local Rural Road Owners." The Council plans to apply for funding through this plan for transportation safety projects in subsequent years.

The purpose of this plan is to use existing data to identify transportation safety issues, prioritize activities to address these issues, and identify potential funding sources to implement the activities. The TTSP evaluates all modes of transportation including, but not limited to aviation systems, ferry and water systems, local roads, seasonal trails, pedestrian transportation, and bus and transit systems. This project helps develop a model process for a wide variety of tribal and state level circumstances to provide Tribes with a plan for the development of successful future transportation projects. Resources and strategies identified in this plan will improve the Tribe's ability to identify hazardous roadway locations and features, and to develop and prioritize transportation safety projects.

1.1 MISSION

The mission of this TTSP is to save lives and prevent injuries on the local transportation system by implementing strategies using the 4E's of Safety: Education, Enforcement, Engineering, and Emergency services. The TTSP prioritizes these strategies through evaluation of crash data, public involvement, and the condition of existing transportation facilities. Development of this plan enables the Council to identify risks, evaluate corrective measures, and seek funding for safety projects that maximize safety to prevent deaths and major injuries.

1.2 PROCESS

This TTSP was developed through guidance from the Council, following the process outlined below:

1. Collect community background information from available resources such as existing community planning documents
2. Conduct an initial meeting with the Council and/or interview Council members to collect preliminary information about safety issues and local safety resources
3. Research available transportation safety data such as traffic counts, crash data, and hospital records
4. Develop and distribute a community survey to collect additional data regarding transportation safety issues and community priorities
5. Use data and survey results to identify safety emphasis areas for the TTSP
6. Develop a Draft TTSP and an implementation plan for the Council to review
7. Hold a public meeting to present the Draft TTSP and emphasis areas to the Community and collect public comment
 - a. A public meeting was held in the community on October 9, 2019. Public involvement documentation is provided in Appendix A.
8. Develop a Final Draft TTSP for the Council to review, incorporating Council and Community comments from the public meeting
9. Develop and adopt a Final TTSP

1.3 BACKGROUND

This section provides background information about the Community including location, history and culture, transportation and access, and climate data.

1.3.1 Location

Ekwok is located along the Nushagak River, 43 miles northeast of Dillingham and 285 miles southwest of Anchorage (Exhibit 1). Within the Bristol Bay Recording District and the Dillingham Census Area, the Community is located at approximately 59.3497 degrees north latitude and -157.4767 degrees west longitude within Section 35, Township 009S, Range 049W of the Seward Meridian. The Community consists of 16.0 square miles of land and 1.4 square miles of water (Alaska Department of Commerce, Community, and Economic Development [DCCED], 2018).

Exhibit 1: Community Location Map

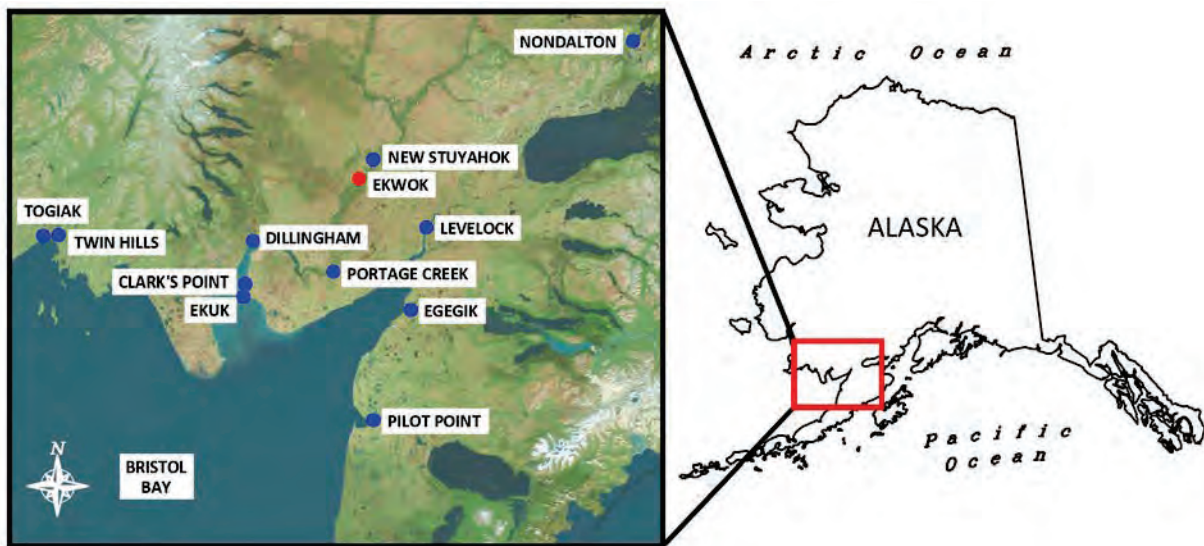


Image source: Bing Geomap, AutoCAD Civil 3D, 2018

1.3.2 History & Culture

Ekwok means "end of the bluff" and is the oldest continuously-occupied Yup'ik Eskimo village on the river. During the 1800s, the settlement was used in the spring and summer as a fish camp and in the fall as a base for berry picking. By 1923, it was the largest settlement along the river. In 1930, a Bureau of Indian Affairs (BIA) school was constructed. Mail was delivered by dog sled from Dillingham until a post office opened in Ekwok in 1941. Many of the earliest homes in Ekwok were located in a low flat area near the riverbank. After a

severe flood in the early 1960s, villagers relocated to the current location on higher ground. The city was incorporated in 1974 (DCCED, 2018).

Today, the Community a Second Class City home to approximately 98 people. Ekwok is a Yup'ik Eskimo village with a fishing and subsistence lifestyle (DCCED, 2018).

1.3.3 Transportation & Access

Air transport is most frequently used to reach Ekwok. Regular and charter flights are available from Dillingham. The state-owned gravel runway was rebuilt and lengthened in 2005. Float planes land on the Nushagak River. Cargo is brought in during ice-free months from Dillingham by barge service. There are no docking facilities, but a barge off-loading area exists. Skiffs, all-terrain vehicles (ATVs), and snow machines are used for local transportation to other villages. In 2016, the Ekwok Village Council built a new road and bridge to the new landfill site (DCCED, 2018).

1.3.4 Climate

Ekwok falls within the transitional climate zone, characterized by tundra interspersed with boreal forests, and weather patterns of long, cold winters and shorter, warm summers. Precipitation averages 20 to 35 inches each year. Extremely strong winds are common during winter months. Fog is prevalent during summer months. The river is ice-free from June through mid-November (DCCED, 2018).

Average monthly climate data from the nearest weather station is provided in Table 1.

Table 1: Local Monthly Climate Summary

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Annual
Average Max. Temperature (°F)	22.1	23.0	29.3	38.2	50.3	58.7	62.5	60.6	53.9	39.7	28.7	20.7	40.6
Average Min. Temperature (°F)	10.1	9.8	14.9	24.6	34.9	43.2	47.4	46.6	40.3	26.5	16.7	8.1	26.9
Average Total Precipitation (in.)	1.79	1.35	1.49	1.01	1.47	1.93	2.79	3.92	3.47	2.21	2.19	1.87	25.48
Average Total Snowfall (in.)	17.1	11.2	13.2	5.4	0.3	0.0	0.0	0.0	0.1	2.1	15.5	18.1	82.9
Average Total Snow Depth (in.)	17	18	18	12	1	0	0	0	0	0	4	12	7

Source: Western Regional Climate Center (WRCC), 2018 Alaska Summaries for Dillingham FAA Airport, Alaska Station 502457 for Period of Record 12/2/1951 to 12/31/2005.

2.0 EXISTING RESOURCES

This section discusses existing safety resources that are valuable to improving transportation safety within the Community.

2.1 SAFETY TEAM

Within the Council, the Tribal Administrator typically acts as the “Safety Champion” for the Tribe, directing safety projects and managing safety resources. The Administrator works with other Council members for planning decisions and transportation improvement projects. Additionally, the Council employs a Village Police Officer (VPO) and BBNA employs a Village Public Safety Officer (VPSO) to help manage and enforce public safety. The two positions are currently filled.

2.2 SAFETY PARTNERS

Safety partners are essential to a successful safety plan. The following safety partners work together to improve transportation safety within the community and ensure the public has access to safety resources:

- Native Village of Ekwok
 - The local Tribal Government is responsible for developing and updating this Plan, as well as coordinating with the other Safety Partners to manage safety and transportation improvement projects within the community. The Tribe has a maintenance crew to keep the roads and transportation facilities safe for public use.
- City of Ekwok
 - The City works with the Tribe and other local agencies to plan and organize safety improvement projects, as needed. The City is also responsible for some road maintenance activities.
- Ekwok Natives Limited
 - The local Native Corporation works with the city and Tribe for safety and community development projects.
- Ekwok Clinic
 - The local clinic provides emergency response and medical services for transportation accidents. They have a clinic van to transport injured people and two health aides on staff.

- Village Police Officer (VPO)
 - There is currently one VPO stationed in Ekwok, who helps respond to car crashes, emergencies, and search and rescue needs. He also helps enforce public safety by giving citations for drunk driving, assault, etc.
- State Troopers, Dillingham Post
 - The nearest State Trooper post is located in Dillingham, which can provide law enforcement and police services if needed.
- Bristol Bay Area Health Corporation (BBAHC)
 - BBAHC provides tribal health care management and health services for the Bristol Bay region through the Kanakanak Hospital out of Dillingham. The Ekwok Clinic coordinates with doctors in Dillingham, as needed.
- Bristol Bay Native Association
 - BBNA is the regional Native Non-Profit that helps fund and coordinate community development projects, including this Plan, and is a great resources for safety projects.
- Bristol Engineering Services Company, LLC
 - Bristol is the primary author of this Plan, and is a subsidiary company of Bristol Bay Native Corporation (Regional Corporation) and Choggiung Limited (Dillingham Native Corporation).
- Alaska Department of Transportation & Public Facilities (DOT&PF)
 - The State's DOT&PF provides numerous resources for transportation safety including safety programs and grants. They are also responsible for maintaining the local airstrip.

Many of these safety partners helped provide background information for this Plan. They also helped identify existing safety resources, safety needs within the community, and potential strategies to improve transportation safety.

2.3 OVERVIEW OF EXISTING EFFORTS

Existing safety efforts within the community primarily involve road maintenance and local law enforcement. Although the City is responsible for maintaining roads in Ekwok, they do not have the proper heavy equipment to perform the work. Therefore, the Tribe often performs emergency spot maintenance as needed, such as filling potholes, road washout rehabilitation, brush cutting, and snow plowing after extreme winter storms. Overall, the

community is in need of maintenance equipment, trained operators, and funding to improve these efforts.

The Council also employs a VPO to help enforce public safety. The VPO gives tickets to drunk drivers, but does not have the authority to give other traffic violations such as speeding tickets. The community has had issues in the past keeping the VPO position filled.

2.4 PLANNING DOCUMENTS

The Community has access to various local, regional, and state planning documents for transportation, safety and community development. These include:

- Ekwok Long-Range Transportation Plan, 2018
- Ekwok Long-Range Environmental Plan
- City of Ekwok Community Comprehensive Plan, 2005
- Bristol Bay Comprehensive Economic Development Strategy: 2017-2022
- Alaska's Strategic Highway Safety Plan (SHSP)
- Alaska's Highway Safety Improvement Program (HSIP)
- Alaska Statewide Transportation Improvement Program (STIP)

These plans were referenced to ensure this TTSP is consistent with other local planning efforts.

2.5 EMERGENCY RESPONSE RESOURCES

Access to emergency response resources are essential for transportation safety. This section discusses existing local, regional, and state safety resources.

If a transportation accident or emergency occurs, locals typically call the VPO for assistance. Once the VPO is on scene, he will call the Ekwok Clinic health aides if medical services are required. The Clinic has a van to transport injured people to the Clinic. If the injury is severe enough, they will then call the doctor in Dillingham or request a medivac.

The VPO and Clinic contact information is provided in Table 2, among other local and regional emergency contacts. This list may not contain all available emergency response resources for the community, and should be updated often.

Table 2: Emergency Response Contacts

Local	Regional / State
Car Crash / Emergency Ekwok Village Public Safety Officer 907-464-3326	Car Crash / Emergency State Troopers, Dillingham 907-842-5641
Medical Response Ekwok Clinic 907-464-1201 (On-call) 907-464-3322 (Office)	Regional Hospital Kanakanak Hospital (Dillingham) 907-842-5201
Fire City of Ekwok Volunteer Fire Department 907-464-3311	Natural Disaster & Search and Rescue State Emergency Operations Center 1-800-478-2337 (toll free) 907-428-7100 (local Anchorage area)
Utility Damage Alaska Village Electric Cooperative (AVEC) 907-561-1818	Recovery-Needs Support American Red Cross of Alaska 1-888-345-4376

Note: Local resources were provided by the Council. Regional and State resources were obtained from the "Alaska Emergency Response Guide for Small Communities."

More information regarding emergency response can be found in the "Alaska Emergency Response Guide for Small Communities" prepared in March 2013 by the State of Alaska Military and Veterans Affairs, Homeland Security and Emergency Management.

3.0 DATA SUMMARY

Crash data and other safety data are valuable to any transportation safety plan. The data is used to identify safety issues, select appropriate countermeasures, and evaluate performance. Other data sources may include traffic citations, hospital records, insurance claims, traffic counts, and anecdotal evidence from safety partners. At least three years of data is recommended to evaluate the overall traffic patterns.

This section summarizes and evaluates available data for Ekwok, which includes crash data from the Alaska DOT&PF, results from a community survey, and drunk driving citations from the Ekwok VPO.

3.1 CRASH DATA

Safety emphasis areas are chosen based on evaluation of crash data. However, community crash data is limited. The Alaska DOT&PF provided crash data for two crashes that occurred in Ekwok between the years 2013 and 2018, reported by the Alaska State Troopers. The statistics for both crashes are provided in Table 3.

The first reported crash occurred in December 2015 between 9:00 AM and 10:00 AM. The crash took place on Gravel Pit Road at the intersection of New HUD Housing Road. The road was icy and dark, and it was snowing. The driver, a 24-year old male in a 4-door hatchback, ran off the roadway into the ditch, reportedly due to a combination of weather conditions and suspected alcohol use. There were no apparent injuries and the vehicle had minor damage (DOT&PF, 2018).

The second reported crash occurred in August 2017 between 12:00 PM and 1:00 PM. This crash also took place on the Gravel Pit Road, but not at an intersection. The crash involved two occupants in a 3-door truck. The driver, a 30-year old male, reportedly was accelerating and ran off the roadway into the ditch. Both occupants had minor injuries and the truck sustained disabling damage. Neither of the occupants were wearing seatbelts. Since the crash took place on a dry road with cloudy skies and plenty of daylight, the crash does not appear to have been caused by environmental factors. Additionally, alcohol use was not suspected (DOT&PF, 2018).

With only two crashes to analyze, it is difficult to draw conclusions from the data. However, one commonality between the two crashes is that they both occurred on Gravel Pit Road. Approximately 1.1-miles long, Gravel Pit Road (also known as Landfill Road) is a gravel road that provides access to the community gravel pit, and in 2016, it was extended to provide access to the new landfill located north of town. There is a one-lane single span

bridge crossing Klutuk Creek along this route. The established speed limit is 25 miles per hour (mph) on the road and 15 mph on the bridge. However, due to the length and isolated location of the road, speed limits may be difficult to enforce. Because of these factors, it may be reasonable to give this road a high safety priority.

Table 3: 2013-2018 Ekwok Crash Data Summary

Data Type	Crash 1	Crash 2
Year	2015	2017
Month	December	August
Day of the Week	Wednesday	Monday
Time of Day	9:00 PM to 9:59 PM	12:00 PM to 12:59 PM
Street	GRAVEL PIT/DUMP ROAD	GRAVEL PIT ROAD
Intersecting Street	NEW HUD HOUSING ROAD	HOUSING ROAD
At Intersection	Yes	No
Number of Motorized Units	1	1
Crash Severity	No Apparent Injury	Suspected Minor Injury
Number of Minor Injuries	0	2
Number of Fatalities	0	0
First Harmful Event	Ditch	Ditch
Weather	Snow	Cloudy
Road Surface	Ice/Frost	Dry
Lighting	Dark-Unknown Lighting	Daylight
Alcohol Suspected	Yes	No
CU Number of Occupants	1	2
CU Driver Restraint System 1	Unknown if Used	No Restraint System Used
CU Driver Raw Age	24 years	30 years
CU Driver Gender	Male	Male
CU Driver Alcohol Suspected	Yes	No
CU Driver Contributing Circumstance 1	Ran Off Roadway	Ran Off Roadway
CU Driver Charges	Yes	No Charges
CU Body Type	Hatchback, 4-Door	3-Door Truck
CU Extent of Damage	Minor Damage	Disabling Damage
Functional Class	Minor Collector	Null value
Maintenance Responsibility	City Highway Agency	Null value

Data Source: DOT&PF, 2018

3.2 COMMUNITY SURVEY

A public survey was conducted within the Community throughout August and September 2018. Raw survey results are provided in Appendix B.

The Council received 21 surveys and submitted them to Bristol. A summary and analysis of the survey results is discussed below.

3.2.1 Question #1: Safety Concerns & Priorities

Question #1 helps portray what the community regards as high priorities in terms of transportation safety issues. The results are shown in Exhibit 2, which are sorted by priority from highest priority to lowest priority. These rankings were used to select and prioritize emphasis areas for this plan.

1. Please help us prioritize safety issues and health hazards on the transportation system within your community. Keep in mind that “**safety issues**” are problems that cause death, injury or illness, and “**transportation system**” means all modes of travel including roads, trails, air transportation, water transportation, pedestrians, bicyclists, etc.

For each type of safety issue below, identify if it is a high, medium, or low priority or concern for your community by circling either “H” “M” or “L”

According to results, 81% of people who completed the survey marked “dusty roads” as a high safety priority, making it the highest voted priority. Over 70% of people marked “lack of helmet use for ATVs and bicyclists” as high safety priorities. The next two highest priorities were “intersection safety” and “drug or alcohol impaired driving.” At least two people selected “high priority” for every type of safety issue listed. This indicates that the community’s safety priorities are broad and multi-modal.

Less than 15% of people marked airport safety, boating hazards, or bridge safety as a high priority. Distracted driving, child restraint use, and boating hazards were voted a low priority by 48 to 57% of survey respondents.

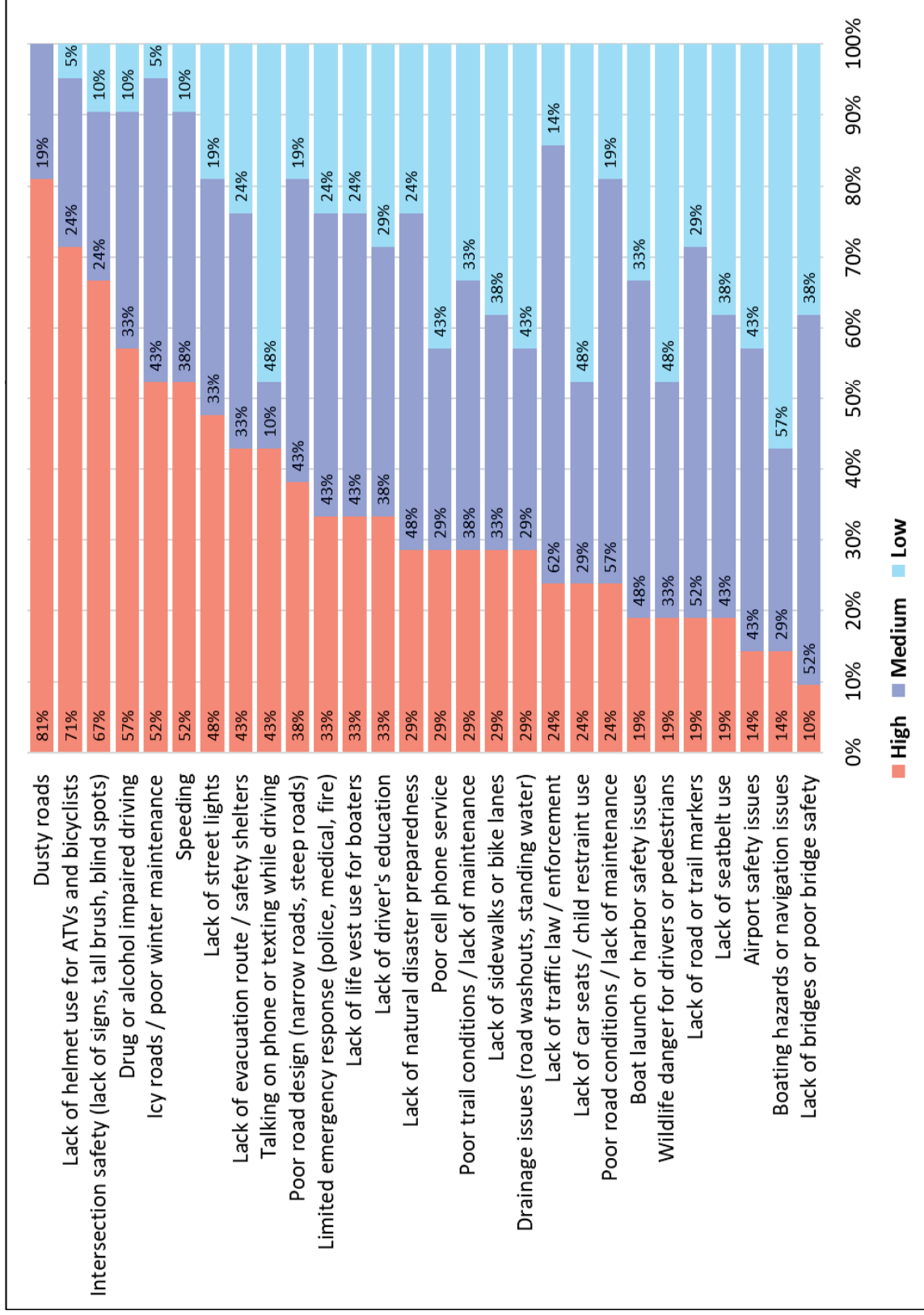
Question #1 includes a few blank lines for “other” safety issues not listed. A few people provided additional safety issues, listing the following as high priorities:

- “Dusty airport,”
- “Float planes flying/landing in front of village, too loud,” and
- “While cleaning fish, boats making big waves, not slowing down.”

These responses are not shown on Exhibit 2.

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Exhibit 2: Community Safety Priorities



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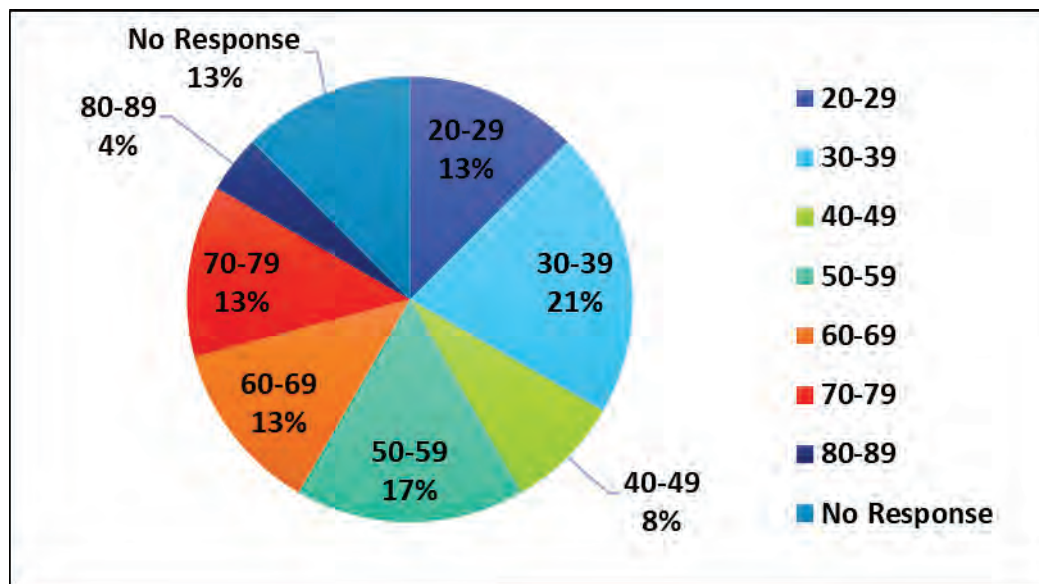
3.2.2 Question #2: Survey Respondent Age

Question #2 collects data about the age of survey respondents, providing demographic information for the survey. This data helps correlate age groups to the various modes of transportation used throughout the community (Question #3), which can help identify where to focus safety education and outreach.

2. How old are you? _____

The results of Question #2 are shown in Exhibit 3.

Exhibit 3: Survey Respondent Ages



A wide range of age groups participated in the survey from ages 22 to 81. The distribution of age groups was fairly even, indicating all age groups are well represented in the results. Two respondents left the question blank. Based on national driving laws, people below the age of 25 are typically considered young drivers, while those over 70 are considered senior drivers. Only one of the survey respondents was under the age of 25, and four survey respondents were over the age of 70.

There seems to be little correlation between age and transportation mode. All ages appear to drive ATVs, walk, boat, and get a ride within the community. Two out of three people who drive cars were in their 20s. One 50-year-old person indicated they ride a bike, although it is assumed that most people who ride bikes in the community are young children.

3.2.3 Question #3: Transportation Modes

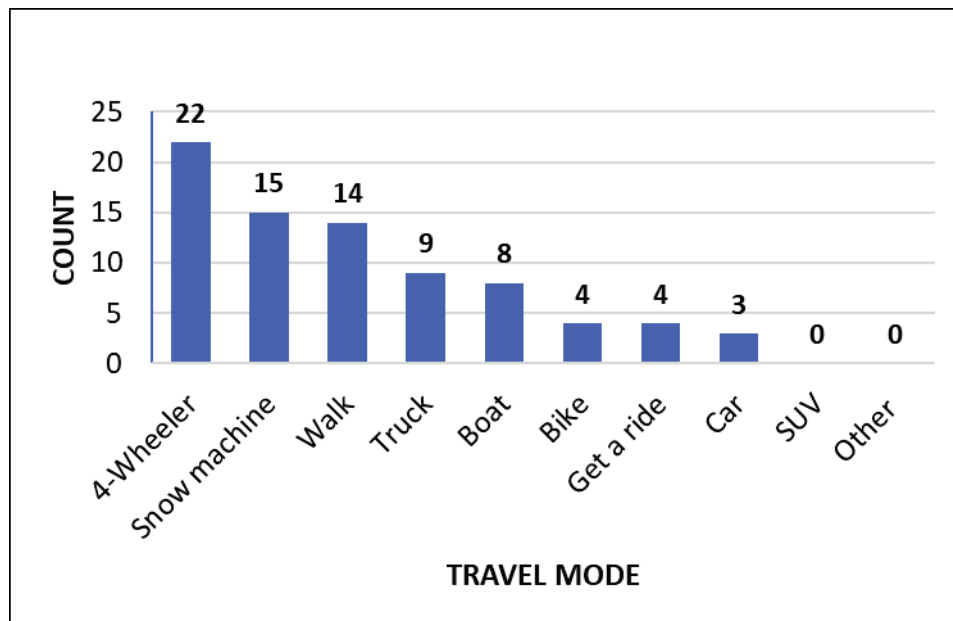
Question #3 demonstrates the most common transportation modes within the Community.

3. How do you get around within the community? Please circle (you may circle more than one):

4-wheeler	Snow machine	Truck	Car	SUV
Walk	Bike	Get a ride	Boat	
Other _____				

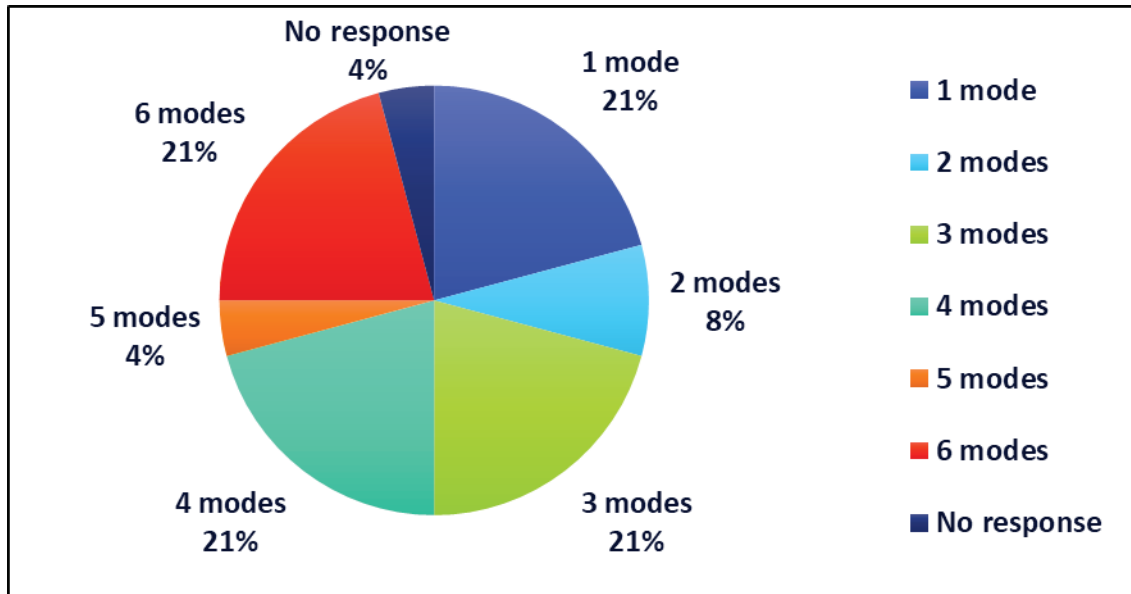
Since the question allows multiple responses, Exhibit 4 shows the number of times each mode was selected at least once.

Exhibit 4: Modes of Transportation Used in Ekwok



The most common means of getting around Ekwok is by 4-wheeler. Approximately 95% of responses circled 4-wheeler at least once, and 19% circled 4-wheeler only. Snow machines and walking are other common modes. As shown in Exhibit 5, the results also indicate that most people use more than one mode of transportation, 76% use two or more modes, and 14% of respondents circled six different modes. Approximately 43% circled 4-wheeler in combination with snow machine and walking.

Exhibit 5: Number of Modes Used



3.2.4 Question #4: Anecdotal Crash Data

Question #4 of the survey helped gather data about recent transportation related accidents within the Community.

- 4.** Do you know of any car crashes that happened in the community within the last 10 years? If so, please describe the incident to the best of your ability by answering the following questions:

Month / Year of incident _____

What happened? _____

What caused the accident? _____

Where did the accident occur? _____

How old were the people involved? _____

What were the injuries or property damage? _____

What types of vehicles were involved? _____

Were pedestrians or bicyclists involved? **yes** **no** **don't know**

Were drugs or alcohol involved? **yes** **no** **don't know**

Did police arrive on scene? **yes** **no** **don't know**

Did an ambulance arrive on scene? **yes** **no** **don't know**

Only two survey respondents answered Question #4. Their responses are shown in Table 4.

Table 4: Anecdotal Crash Data Summary

Data Type	Response 1	Response 2
Month	July	-
Year	2008	2017
Incident	Rollover	Car went off narrow road
Cause	Speeding	Slippery
Location	Post Office	HUD Road
Age	40	20-30
Injuries	Face cuts	Not too much, not hurt
Property Damage	-	-
Vehicle Types	Yamaha, 4-wheeler	1 Car
Pedestrian Involvement	No	Don't know
Drug or Alcohol Use	Yes	No
Police on Scene	No	Don't know
Ambulance on Scene	No	No

The crashes described on the survey both appear different from the reported crashes provided by DOT&PF. Reportedly, the 2008 crash resulted in a rollover due to speeding and alcohol use, while the 2017 crash resulted in a lane departure due to ice. Out of the four total crashes with available data, two of them involved alcohol, two involved speeding, two occurred on icy roads, and two occurred on HUD Road.

It is important to note that this crash data is based on human memory, not fact. This data does not represent all car crashes that have occurred within the community.

3.2.5 Question #5: Safety Measures

Question #5 is an open-ended question aimed at collecting community ideas on how to improve local transportation safety. This style of question allows people to express their own ideas to address issues that may or may not have been listed in Question #1.

5. What do you think could be done to improve transportation safety in your community?

Many people provided input on Question 5, but seven people left the question blank. The responses are summarized below:

- Driver's education
- Bike trails, safety signs, dust control
- Widen some roads. During dry spells, roads get dusty; get a truck that holds water to wet roads. Fill potholes wherever needed right away.
- Fix roads and hiking trails, and place signs where needed
- Speed limits and streetlights
- Dust control
- Having the younger kids wearing helmets would be great. Have stronger patrolling for intoxicated persons.
- Teach people to drive slow or be careful even if they do not see other drivers on the road. Someone might pop out of nowhere, and they will not have enough time to slow down.
- Stop and look both ways, look out for other drivers. Need stop signs and streetlights.
- Widen roads, more brush cutting, and Alaska driver's license requirements. Also, set age limit for 4-wheeler drivers.

Not all of the survey responses are listed. Duplicate responses were omitted. Based on the comments, five people recommended driver's education and four mentioned dust control. Other common suggestions to improve safety include installing signs and streetlights, widening the roads, better road maintenance (brush cutting and potholes), trail improvements, and traffic enforcement.

3.3 VPO CITATIONS

During the development of the Draft TTSP, the VPO stationed in Ekwok at the time was contacted on September 25, 2018 to collect data for the plan. During his time as VPO (approximately one year), there were no car crashes in the community. However, he explained that intoxicated driving is the most significant safety hazard. In one year, the VPO gave several citations for intoxicated driving, as shown in Table 5.

Table 5: VPO Citations

Citation Type	Quantity in 2018
Driving under the influence (DUI)	4
Driving while impaired (DWI)	2

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4.0 EMPHASIS AREAS

Bristol used data collected from the site visit, public survey, Council correspondence, and personal interviews to identify key safety emphasis areas for this Safety Plan. An “emphasis area” is an area of opportunity to improve safety through a comprehensive 4 E approach (engineering, enforcement, education, and emergency services), as appropriate.

The Council is focusing on seven emphasis areas for this Plan:

1. Impaired Driving
2. Road & Trail Improvements
3. Road & Trail Maintenance
4. Speeding / Dust
5. Pedestrians
6. Young Drivers
7. Animal Control

These emphasis areas were selected based on factors such as public meeting discussions, survey results, community priorities, and highest potential to prevent injury and death on the transportation system.

This section discusses the background and objectives of each emphasis area and identifies strategies or actions to address the emphasis area. The implementation plan discussed in Section 5 develops each strategy further by specifying instructions for target outputs, responsible parties, completion dates, performance measures, success indicators, and monitoring techniques.

4.1 IMPAIRED DRIVING

4.1.1 Background

Ekwok is considered a “damp” community because there are no restrictions on alcohol, but there are currently no bars or liquor stores within the community. The community recognizes intoxicated driving as one of its primary transportation safety concerns. Approximately 57% of survey respondents marked “drug or alcohol impaired driving” as a high priority, putting it in the top four community priorities. Of the three past crashes for which data is available, two of them reportedly involved alcohol use. In addition, the Ekwok VPO gave at least four DUIs and two DWIs in 2018.

Impaired driving is a statewide issue as well. Between 2008 and 2015, an average of 21 lives were lost annually on Alaska’s roadways due to alcohol impairment, totaling over 200

fatalities in eight years. Roughly 30 percent of traffic fatalities were related to impaired driving. Because of this, “impaired driving” is listed as an emphasis area in the State’s 2018 Highway Safety Plan (HSP) (Alaska HSP, 2018).

Safe driving requires the ability to concentrate, make good judgements, and react quickly to situations. However, drugs and alcohol affect these skills, putting the driver and others in danger. These substances impair driving skills by slowing reaction time, reducing coordination and concentration, decreasing vision, and inhibiting judgement (Alcohol Rehab Guide, 2018).

4.1.2 Objectives

Focus on community education and VPO enforcement to improve awareness about the risks of intoxicated driving, reduce the number of DUI/DWI citations, and reduce the number of drug or alcohol related accidents in the community.

4.1.3 Strategies

Education

- Hold a safety course at the school
- Conduct a Drunk Driving campaign, for example hang informational posters around the community, and encourage community members to help enforce each other
- Coordinate with the VPO, VPSO, and State Troopers to have police teach the risks and laws associated with impaired driving

Enforcement

- Continue VPO/VPSO enforcement and citations for impaired driving

Engineering

- *Not applicable*

Emergency Services

- Maintain an open line of communication between the VPO, VPSO and health aide, so they may work together closely to respond to drug or alcohol abuse or vehicle accidents related to substance use
- Provide first responder training to Council staff members to have additional emergency response personnel

4.2 ROAD & TRAIL IMPROVEMENTS

4.2.1 Background

All community streets in Ekwok consist of a gravel surface, while trails leading to subsistence areas surrounding the community are either rugged ATV tracks or winter trails. Many of the roads in Ekwok are dotted with potholes, which are a driving obstacle and cause increased wear-and-tear on vehicles and maintenance equipment. Poor drainage is also contributing to deterioration of the roadbed. Lack of ditches, adequate culverts, and lane crowning can cause rain runoff or snowmelt to accumulate on the road surface. Standing water is a health risk for young children and a risk to drivers, especially at excessive speeds. In addition, many of the roads are narrow and have steep side embankments. Some intersections have poor visibility due to tall brush. Trails have similar issues to the roads. They are rugged, not well maintained, have tall brush, and are poorly marked for directional purposes. It is not uncommon for travelers to get lost on the trail system, especially during winter storms. The Council indicated that they have approximately 50 trail tripods in storage but do not have the funding to install them.

Public involvement indicates that road widening, road resurfacing, intersection signs, improved drainage, brush clearing, and new trail tripods are all desired road and trail improvements. Survey results show that “intersection safety (lack of signs, tall brush, blind spots)” was marked a high priority by 67% of respondents, and “poor road design (narrow roads, steep roads)” was marked a high priority by 38% of respondents.

4.2.2 Objectives

Rehabilitate existing roads and trails as needed to improve driver safety and access, improve traffic control and visibility at intersections, and improve drainage

4.2.3 Strategies

Education

- Install new street signs at intersections, as needed
- Keep the public informed and involved during road construction projects

Enforcement

- Control traffic safety during construction

Engineering

- Rehabilitate the existing roads by placing new gravel surface material, widening some roads, and improving area-wide drainage through new ditching and culverts

- Install new trail markers along primary subsistence routes
- Pursue funding for road and trail improvement projects

Emergency Services

- Resurfacing the roads to remove potholes and improving drainage to reduce standing water will improve accessibility around the community for emergency vehicles

4.3 ROAD & TRAIL MAINTENANCE

4.3.1 Background

Road and trail improvements will not last long without effective annual maintenance of the facilities. Maintenance services are lacking in Ekwok. Currently, the City is responsible for maintenance. However, lack of functioning equipment, funding, and trained staff are limiting the City's maintenance capabilities. The Tribe steps in to grade the roads, cut brush, and fill potholes, as needed. Other maintenance activities such as trail tripod repair and culvert cleaning are not performed. The Tribe could assist with more road maintenance if an agreement were made between the City and Tribe. The Tribe has access to tribal shares through the Tribal Transportation Program as well as a Community development quota (CDQ) through Bristol Bay Economic Development Corporation to fund road maintenance. Tribally owned maintenance equipment includes an excavator, dump truck, loader, dozer, skid steer, and a plow truck (needs repairs).

Winter maintenance is another community concern. Snow plowing is only performed during extreme snow events, but otherwise snow and ice accumulate on the roads, sometimes causing slippery and hazardous driving conditions. Two of the four reported car accidents occurred on an icy road. During the Safety Plan public meeting, one resident explained a vehicle sliding off the road in 2017 due to snow. The vehicle had to be towed out of the ditch. It is likely that other similar incidences occur but go unreported. Approximately 52% of the public surveys indicated "icy roads / poor winter maintenance" is a high safety priority.

The Council is also concerned about the degradation of the bridge surface coating. In the winter, people drive snowmobiles. The blades tear at the bridge coating. The Council is interested in placing protection on the bridge during winter months, such as wooden boards, to extend the life of the bridge surface.

Another Council concern relating to maintenance activities is the accumulation of waste oil from vehicles and maintenance equipment. There is currently no environmentally safe way to dispose of the hazardous substance locally. The Council is interested in investigating the most economic and environmentally friendly way to handle the waste. Possible

considerations include shipping the waste to Anchorage, burning it locally, or filtering and recycling the oil on-site for other purposes. More research is needed to ensure the chosen method complies with state and federal regulations.

4.3.2 Objectives

Improve driver safety and access around the community, and extend longevity of transportation facilities by increasing maintenance efforts.

4.3.3 Strategies

Education

- Continued operator training for road and trail maintenance

Enforcement

- Coordinate between the Tribe and City to develop a transportation maintenance plan. The plan will help regulate and coordinate maintenance activities, and ensure operators complete maintenance in a safe and timely manner.

Engineering

- Acquire needed maintenance equipment such as a grader and a mechanical brush cutter to hook onto the loader
- Conduct annual maintenance activities such as inspecting trails for safety issues, cleaning debris and ice out of culverts, filling potholes, and placing boards on the bridge each winter to protect the coating from snow machines
- Research possible solutions for disposing of or recycling waste oil from vehicles and heavy equipment

Emergency Services

- Hire seasonal workers to assist with maintenance using CDQ
- Maintain trail markers (replace damaged tripods or fix fallen down tripods) to improve navigability of trails and assist with search and rescue operations

4.4 SPEEDING / DUST

4.4.1 Background

Speeding is a significant issue in Ekwok. Public survey results indicate that speeding is a high safety concern for 52% of the survey participants. One DOT&PF crash report indicates the vehicle was accelerating on the road, and one anecdotal crash report indicates that a rollover accident in 2008 involved a speeding ATV. Speeding appears to be most

problematic on long, straight stretches of road including HUD Road and Gravel Pit/Dump Road.

Driving at an excessive rate of speed can put drivers and pedestrians at risk because it reduces reaction times and can cause the driver to lose control especially at turns or on narrow or icy roads. Although Ekwok has a VPO, enforcing the speed limit is challenging due to their limited authority to perform traffic stops and give speeding tickets.

About 81% of survey respondents also marked “dusty roads” as a high priority, putting it at the top of the community’s priority list. Road dust is often associated with speeding because excessive speeds can increase airborne dust on gravel roads. Dust clouds are also common on the gravel airport runway. Besides being a nuisance, dust can settle on subsistence foods such as natural berry patches or salmon hanging out to dry. Inhaling airborne dust is also a health risk, particularly for children, elders, and people with respiratory issues. Dust contains particulate matter that can irritate a person’s eyes and throat, aggravate existing heart and lung disease, and damage lung tissue. The community desires addressing the dust and speeding issues in a combined effort.

4.4.2 Objectives

Decrease speeding throughout the community to reduce dust emissions and improve safety of pedestrians and other drivers.

4.4.3 Strategies

Education

- Explain the risks of speeding and dust in community newsletters
- Improve community awareness about safe and courteous driving

Enforcement

- Install speed limit signs and other signs, as needed, particularly in the school zone

Engineering

- Widen roads to provide extra walking space for pedestrians and increase separation between foot and vehicle traffic
- Procure a water truck (to be stored in new warm storage building) and develop a maintenance plan to apply water to the roads for dust suppression as needed
- Coordinate with DOT&PF to develop an agreement about applying water to the runway for dust suppression during dry conditions

Emergency Services

- Coordinate with the VPO and VPSO to monitor speeding and give warnings to violators

4.5 PEDESTRIANS

4.5.1 Background

Walking is one of the most common ways to get around within Ekwok. Half of survey participants said they walk in combination with other modes such as ATVs. It is typical for people to walk to and from places such as the store, post office, community well, and school. Despite the commonality of pedestrians, there are no pedestrian safety features along the roads. Many of the roads are narrow and unlit. Ekwok experiences extended hours of darkness in the winter, and although there are some existing streetlights, approximately 48% of survey respondents said “lack of streetlights” is a high safety priority. Visibility of pedestrians at night and in the winter is a public concern.

4.5.2 Objectives

Improve safety and visibility of pedestrians.

4.5.3 Strategies

Education

- Coordinate with safety partners such as the State of Alaska Division of Public Health to obtain reflective tape and bike lights for pedestrians, and supplied to kids through the school.

Enforcement

- Encourage parents to enforce and teach safe pedestrian practices to their children

Engineering

- Widen roads to provide more walking space for pedestrians
- Install more streetlights on high priority streets to improve visibility of pedestrians

Emergency Services

- Ensure burnt out streetlights are replaced immediately

4.6 YOUNG DRIVERS

4.6.1 Background

Community survey results indicate that “lack of helmet use for ATVs and bicyclists” was voted the second highest community safety priority in Ekwok. In rural Alaska, it is not uncommon for young children to operate ATVs. Additionally, when asked what could be done to improve transportation safety in the community, survey participants listed driver’s education, helmets, ATV age limit, and driver’s license requirements. These suggestions indicate the need to focus on safety and education of young drivers.

4.6.2 Objectives

Improve young driver safety by enhancing local driver’s education and implementing a helmet program.

4.6.3 Strategies

Education

- Driver education courses at the school, including a presentation about helmet use
- Host a community meeting to address young driver challenges

Enforcement

- Encourage parents to enforce the use of helmets when their children drive ATVs and bicycles

Engineering

- Widening the roads will allow more room for bicycles

Emergency Services

- Coordinate with safety partners including the State of Alaska Division of Public Health to participate in the Helmet Safety Program for snow machines and ATVs, which helps fund new properly-fitted helmets for kids within the community

4.7 ANIMAL CONTROL

4.7.1 Background

Animal control includes both wildlife and stray pets within the community. Being a rural village in Alaska, Ekwok experiences encounters with bears, wolves, foxes, and moose on a yearly basis. Most locals are accustomed to the wildlife, but these animals can be dangerous and bothersome if appropriate safety measures are not implemented. These animals can

attack humans or cause vehicle accidents. In Ekwok, tall brush grows on the sides of the roads, hiding animals from view of drivers and pedestrians. Although there have been no reported car accidents or attacks from wildlife in recent years, several people (19% of survey participants) consider this a high safety priority.

Although stray dogs were not listed on the public survey, the issue was brought up during the public meeting. Locals explained that loose dogs chase ATVs and children, walk in the roadway, and could transmit harmful diseases such as rabies. Some people are worried about dogs being hit by a car or attacking young children. The City has an ordinance that requires people to tie up their dogs, but the law is ignored and not well enforced. Although there have been no reported dog bites in Ekwok, the community is worried about the risks.

The stray dog issue is not unique to Ekwok. A study published in 2013 by The Journal of Pediatrics examined the incidence of dog bites between 2001 and 2008. The study demonstrates that Alaska Native children suffer among the highest rate of serious dog bites in the nation, and are hospitalized for dog bites at double the rate of U.S. children overall (Anchorage Daily News, 2015).

4.7.2 Objectives

Reduce the risk of vehicle accidents or attacks from both wildlife and stray dogs within the community.

4.7.3 Strategies

Education

- Educate residents about chaining up pets through VHF radio announcements, public meetings, or other methods

Enforcement

- Work with the City, VPO, and VPSO to investigate means to better improve and enforce the existing stray dog ordinance, including establishing program to warn and fine violators

Engineering

- Cut brush along roadways and trails to improve driver and pedestrian visibility of potentially lurking wildlife

Emergency Services

- Work with local safety partners to investigate options for animal patrol services
- Include animal bite treatment in first responder training courses

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5.0 IMPLEMENTATION PLAN

The Council plans to begin implementation of this TTSP in the 2019 calendar year. The Council will schedule projects based on priorities recommended by the community and approved by the Council. More information regarding project scheduling may be added in the plan during yearly updates.

An Implementation Plan Matrix for each emphasis area is attached in Appendix C. The matrix is to be used by the Council to plan safety projects. The matrix identifies the following information:

- Objectives of the emphasis area
- The strategic linkage, or evidence that shows a need to prioritize the emphasis area
- Success indicators, or completed tasks that demonstrate successful implementation of the proposed projects
- For each of the 4 E's of Safety:
 - Actions and proposed strategies to improve the safety emphasis area
 - Target output, or goal of each strategy listed
 - Responsible parties that are assigned to each task listed, subject to change with management positions
 - Date of completion, estimated for each strategy listed, which may be on-going
 - Performance measures that indicate the completion of a project
 - Monitoring and evaluation methods to analyze the effectiveness of a completed project or strategy, which can help improve future project planning

5.1 EVALUATION PROCESS

At least once per year, this plan will be evaluated by the Council's Safety Champion, or other staff members as directed by the Council. The plan will be updated as needed. For example, emphasis areas may be removed, added, or modified as safety measures are successfully implemented or as safety priorities change within the community. A Council meeting, open to the public, will be held to discuss major changes to the plan as well as strategies for future safety projects and decisions regarding potential funding sources.

5.2 NEXT STEPS

Several steps still need to be taken after this plan is finalized. The recommended actions for the Council are listed below in chronological order:

1. Develop an official resolution to adopt this plan
2. Use this plan and data provided in this plan to apply for funds for safety projects through the Tribal Transportation Safety Funds and other sources (see Section 5.3)
3. Apply for safety audits to evaluate the existing transportation facilities and receive recommended solutions to improve safety
4. Include the public in decision making processes via public meetings and announcements to ensure proposed projects are benefitting the community
5. Select strategies outlined in this plan to address safety concerns and begin planning projects, starting with the highest priority emphasis areas
6. Develop a detailed project schedule to keep projects on track and ensure success
7. Apply for funding for engineering, design, and construction services for high priority projects
8. Monitor and evaluate construction activities and performance measures outlined in the Implementation Plan
9. Record completed projects and maintain as-built documents for future use
10. Update this plan and repeat these steps when projects are completed, or every 5 years

5.3 FUNDING SOURCES

Funding is a major element to completing safety improvement projects. Various available funding sources are listed below. This list may not be comprehensive and is subject to change.

- Tribal Transportation Program Safety Funds
 - FHWA manages the Tribal Transportation Program (TTP). Each year under the Fixing America's Surface Transportation (FAST) Act, 2% of available TTP funds are set aside to address transportation safety issues in Native America.

- More information about this program can be found at:
<https://flh.fhwa.dot.gov/programs/ttp/safety/ttspf.htm>
- Alaska DOT&PF Highway Safety Grant
 - Every year, the Alaska DOT&PF through its Highway Safety Office funds grants which address specific traffic safety priority areas. The Highway Safety Grant is available for Federal Fiscal Year 2019 (October 1, 2018 to September 30, 2019).
 - Other funding resources are available on their website including grant application forms and instructions, tips and tactics for success, and traffic data sources.
 - More information can be found at:
<http://www.dot.state.ak.us/highwaysafety/forms.shtml>
- Alaska DOT&PF Highway Safety Improvement Program (HSIP)
 - The Alaska HSIP annually identifies high accident locations on Alaska roads, evaluates corrective measures, funds the most cost effective ones, and evaluates their effectiveness after projects are completed. The HSIP mission is to identify and fund highway safety projects that maximize lives saved and injuries eliminated per dollar spent.
 - More information can be found at:
<http://dot.alaska.gov/stwddes/dcstraffic/hsip.shtml>
- Alaska DOT&PF Safe Routes to School Grant
 - Grants are available through the Safe Routes to School Program to help plan, design, or complete construction improvements that enable and encourage children to safely walk or bicycle to school.
 - More information can be found at:
<http://www.dot.state.ak.us/stwdplng/saferoutes/grants.shtml>
- Alaska DOT&PF Statewide Transportation Improvements Program (STIP)
 - The Alaska STIP helps fund air, land, and water transportation projects in Alaska that have been formally proposed by residents, elected officials, and transportation professionals every four years.
 - More information can be found at:
<http://dot.alaska.gov/stwdplng/cip/stip/index.shtml>

- Alaska DOT&PF Public Transit Funding
 - The State of Alaska maintains various public transit programs to aid in funding across the state. These include the Non-Urban Formula Grants, Rural Transportation Assistance Program, American Recovery and Reinvestment Act of 2009 Funding Distribution, and the Tribal Transit Program Funds.
 - More information can be found at:
http://dot.alaska.gov/transit/pt_funding_overview.shtml
- Denali Commission Grants
 - The Denali Commission is an independent federal agency designed to provide critical utilities, infrastructure, and economic support throughout Alaska. Various funding opportunities are available through their Energy Program, Transportation Program, Health Facilities Program, and Training Program.
 - More information can be found at: <https://www.denali.gov/grants/>
- Grants.gov
 - [Www.grants.gov](http://www.grants.gov) is a public website where all federal agency discretionary funding opportunities are posted for grantees to find and apply to them. The search function can be used to sort out transportation related grants. Some grant postings close after only two weeks, so it is important to check for opportunities frequently.
- Better Utilizing Investments to Leverage Development (BUILD) Grants
 - The BUILD discretionary grant program awards funds on a competitive basis for road, bridge, transit, rail, port, or intermodal transportation projects that will have a significant local or regional impact.
 - More information can be found at:
<https://www.transportation.gov/BUILDgrants>

A general outline of additional national and state-level grant and safety programs is provided below. Some of the programs are dedicated specifically to safety, while others have broader application.

- FHWA funds, administered by the states for safety only, include:
 - Hazard Elimination Program (HES)
 - Highway-Rail Grade (public) Crossings

- FHWA funds, administered by the states for activities, including safety:
 - Surface Transportation Program (STP)
 - Interstate Maintenance (IM)
 - Highway Bridge Replacement and Rehabilitation Program (HBRRP)
 - Intelligent Transportation System (ITS)
 - Highway Planning and Research (HPR)
- US DOT sponsored training programs, including safety topics:
 - National Highway Institute (NHI)
 - Tribal Technical Assistance Program (TTAP)
 - US DOT transportation project grants
- National Highway Traffic Safety Administration (NHTSA) funds administered by the states through the Governor's representative (safety only):
 - State and Community Highway Safety Grant
 - Intoxicated Driver Prevention Program
 - Alcohol-impaired Driving Countermeasures Incentive Grants
 - Safety Incentive Grants for the Use of Seat Belts
 - Occupant Protection Incentive Grants
 - State Highway Safety Data Improvement Grants
 - Child Passenger Education Program
 - Research and Demonstration Grants
 - Training
- IRR Program jointly administered by BIADOT and the Federal Lands Highway Office and funded by FHWA:
 - 2% Planning Funds
 - Construction Funds
 - Safety Management Systems (SMS)
 - Tribal Highway Safety Improvement Program (THSIP)
- Highway Safety Programs administered by BIA Highway Safety Office (HSO) program and funded by NHTSA (safety only):
 - State and Community Highway Safety Grant

- State Highway Safety Data Improvement Grants
 - Child Passenger Education Program
- State funded and administered (not all states):
 - State Highway Funds
 - State Safety Funds
 - Transportation Loan Programs
 - Local Technical Assistance Program (LTAP)

5.4 ADDITIONAL SAFETY RESOURCES

Safety resources are continuously evolving. A short list of health and safety organizations useful for Alaskan communities is provided below. Many of these programs can provide educational resources such as posters, as well as safety gear for communities such as helmets and life jackets.

- The Alaska Department of Health and Social Services (DHSS) provides several significant Injury Prevention Programs including Helmet Safety, Bike-n-Walk Safely, Kid's Don't Float, and more. A few of these programs are described in further detail below. For more information on the other programs, visit:
<http://dhss.alaska.gov/dph/Chronic/Pages/InjuryPrevention/default.aspx>
- Alaska Helmet Safety Program – The Alaska DHSS provides various resources for youth ATV safety and helmet education. Grant opportunities may be available. Program and contact information can be found at:
<http://dhss.alaska.gov/dph/Chronic/Pages/InjuryPrevention/HelmetSafety/atv/default.aspx>
- Alaska Reflector Program – The Alaska DHSS reflector program works to increase the safety of children by using reflective, high-visibility products. Program and contact information can be found at: http://dhss.alaska.gov/dph/Chronic/Pages/InjuryPrevention/Reflector_Old/Default.aspx
- Center for Safe Alaskans – This program works to prevent injuries, promote wellbeing and improve safety for all Alaskans. They provide several services including FREE reflective tape, car seat assistance, and more. Find more information at: <https://safealaskans.org/>

- Bristol Bay Area Health Corporation – BBAHC provides health care services, as well as the Community Health Aide Program, Emergency Medical Services (EMS)/first responder training, and other health educational programs for communities within Bristol Bay. Find more information at: <https://www.bbahc.org/>
- Centers for Disease Control and Prevention (CDC) – The CDC has a multitude of motor vehicle safety resources including “Get the Facts” sheets, State Fact Sheets, and “What Works” strategy sheets for various safety topics including child passenger safety, seat belts, teen drivers, older adult drivers, impaired driving, distracted driving, pedestrian safety, Tribal road safety, bicycle safety, and more. Find more information at: <https://www.cdc.gov/motorvehiclesafety/>
- NHTSA – Fatality Analysis Reporting System (FARS) is a nationwide census providing NHTSA, Congress, and the American public yearly data regarding fatal injuries suffered in motor vehicle traffic crashes. The site offers a customizable fatality data query system. This site also provides road safety resources and tips for various safety topics.
FARS: <https://www.nhtsa.gov/research-data/fatality-analysis-reporting-system-fars>
Road Safety Tips: <https://www.nhtsa.gov/road-safety>
- National Safety Council – This organization provides resources on developing a Safety Management System (SMS), which is a continuous improvement process that reduces hazards and prevents incidents. Find more information at: <https://www.nsc.org/work-safety/tools-resources/safety-for-business/ask-us>
- Road Safety Audits (RSAs) – The FHWA provides resources for conducting RSAs, which are an effective tool for proactively improving the future safety performance of a road project during the planning and design stages, and for identifying safety issues in existing transportation facilities. Find more information at: <https://safety.fhwa.dot.gov/rsa/>
- FHWA Tribal Transportation – This website provides an overview of tribal transportation safety topics, programs, policies, crash data, and more. https://www.fhwa.dot.gov/tribal/topics/safety/saf_ack/saf_guide.htm
- Countermeasures that Work – A Highway Safety Countermeasure Guide for State Highway Safety Offices, Eighth Edition, 2015, NHTSA. https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/812478_countermeasures-that-work-a-highway-safety-countermeasures-guide-.pdf

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APPENDIX A: PUBLIC INVOLVEMENT

TRIP REPORT & MEETING MINUTES

Project: **BBNA THMP & TTSP Project**

Bristol Project No: 32190013

Reference: Ekwok Planning Team Meetings & Public Meetings

Date of Meeting: October 9, 2018

Location of Meeting: Ekwok Tribal Building

Participants:

Bristol: Danielle Dance, Jackie Wander

BBNA: Annie Fritze

Planning Team: See attached sign in sheet

Public Meeting: See attached sign in sheet

Summary

Jackie, Danielle, and Annie arrived in Ekwok around 11:00 AM. They met with the Ekwok Planning Team from 11:30 AM to 2:30 PM regarding the Tribal Hazard Mitigation Plan (THMP) and Tribal Transportation Safety Plan (TTSP) Project. They first discussed the THMP with the group. We reviewed and added to the vulnerability statements and mitigation goals. Then we discussed potential mitigation strategy ideas for each of the profiled hazards. After the THMP discussion, we talked about the TTSP. We went through the list of potential emphasis areas and modified them as desired by the Council. Then we discussed the implementation plan, identifying action strategies for the 4E's of safety, and determining responsible parties. A public meeting was held from 3:30 PM to 5:00 PM in the school gym to discuss both projects and collect public feedback. Jackie, Danielle, and Annie stayed overnight in the Old Clinic. They departed Ekwok in the morning of October 10, 2018. Notes taken during the meetings are summarized below.

THMP Planning Team Meeting Notes

- The community well has yellow water during the spring, which is apparently due to cracks in the concrete foundation and soil sliding into the well
- Want to protect the river bank, people are losing their backyards to the river, discussed various options including grading a slope and using mesh to plant seeds, excavating tundra and placing it on the slope, having people throw their brush down there, or installing riprap or steel sheet piles
- Could provide goggles for ATV drivers when traveling during snow or rain to protect eyes and improve visibility
- Volcanic ash has affected the snowfall, changing the shape of the snowflakes, people could see plumes and lightning during the Mt. Augustine explosion
- Would like to buy a water truck to control dust, they have a new warm storage building, they are in the process of getting a fire truck
- Would like to get a safety group together for fire fighting

- City does not have a hazard mitigation plan, would like to coordinate with them
- The clinic has an emergency defibrillator
- Need volunteer first responders, could train the entire village council staff, use to have some in the village
- Could pass out flyers or a checklist for home winterization, wear warm coats, inspect heat tape in homes, inspect fuel tanks, make sure your oil filters are not clogged, have plenty of firewood on hand, etc.
- Have a safety class for kids to make their own survival kits
- They have less snow nowadays
- They have had major floods in the past, which has prevented access to the gas station, they would like to consider relocating the tank farm and sewage lagoon to higher ground out of the river flood zone
- They use the VHF as a warning system, people watch river levels and warn the community if there is a flood danger
- The tribe needs a grader to crown the road, they need new culverts around town to help with road drainage and reduce flooding/standing water
- Bluffs on the trail to New Stuyahok are at risk for landslide, especially during heavy rain, would like to improve community awareness, some landslide issues on Klutuk Creek
- Tell people to slow down ATVs, boats, and floatplanes in critical riverbank areas because the waves and vibrations affect erosion and landslides
- Improve frostbite and hypothermia awareness, warn people when to stay home if it is too cold outside, plug in vehicles so they can start, use headlights while driving in bad weather, fix trail tripods and put reflector tape on the entire pole, consider using GPS trail points for people to tie in with cell phones
- Would like a brush cutter to hook on the side of the loader, the brush has been growing wild lately. If they cut it, it grows back ten times worse the next year, but they don't know why.
- Would like a water truck to water the roads, inform people how to protect their fish hanging from dust, airport has bad dust issues, coordinate with DOT to work out an agreement to water the runway, some people have dust allergies
- Most homes have a second well, they could hook up a hose and have good pressure in case of fire, want to get fire hydrants installed around town

TTSP Planning Team Meeting Notes

- Emphasis areas to include in the draft plan:
 - Intoxicated driving
 - Road improvements
 - Trail improvements
 - Road and trail maintenance
 - Speeding / dust
 - Pedestrian safety
 - Young drivers
 - Animal control (Loose dogs and wildlife)
 - Vehicle maintenance (Determine the best method to dispose of waste oil, burn or barge out?)

- Would like to remove school zone safety and discuss speeding in the school zone under the “speeding” emphasis area by installing signs at the school
- Remove bridge safety, they would like to include under road maintenance placing plywood on the bridge in the winter to protect the coating from snow machines
- Remove law enforcement and cover these items under different emphasis areas
- See attached implementation plan for strategy ideas
- They have a VPO, not a VPSO
- They have a CDQ Community Development Quota with BBEDC to do road maintenance, they could use interns to assist
- Working on getting a fire truck, have a new warm storage building
- They have approximately 50 tripods in storage but no funding to install them
- The school has about 16-17 students
- Community awareness to keep dogs tied up, they chase kids and ATVs, can be a safety hazard, research if they can hire animal patrol or fine people for loose dogs, there are existing ordinances, concerned that foxes might spread rabies
- Want to maintain roads for access to the landfill

THMP Public Meeting Notes

- Nearby wildfires cause smoke issues in summer
- Had to shut down the school before because it was so cold
- The runway wasn’t plowed for a while and planes couldn’t come in
- Flooding happened in the 1990s, had to close the gas station, some houses and fish sheds flooded
- Extreme winds caused a tree to fall down next to a home
- Community noise complaint about floatplanes landing on the river in the early morning
- Was a fire in the summer between Ekwok and New Stuyahok in the early 2000s, people had to prepare for evacuation
- Question about how to clean up oil and fuel that leaks into the ground
- Felt earthquakes last year, for the first time in many years, shaking objects
- Health and health aids are a community asset, would like to have one more health aid
- Roads and connections between the communities are an asset
- There’s an old cemetery by the river, a new cemetery, and private cemeteries
- Need to cut brush around the electrical utilities, who is responsible?
- Pave roads
- Boats drive fast on the river while people are cleaning fish causing waves
- Provide resources for the school, emergency contacts, where to meet during an emergency, talk to your grandkids
- Cut dead brush around homes and power lines, home maintenance
- Better communication for public meetings such as newsletters, emails, telling people ahead of time
- Explain what grants and resources are available
- House fire in May 2013, dry and windy, dog caught on fire, had to use water from the river, house was close to bank
- Have been seeing new insects due to climate change

TTSP Public Meeting Notes

- Float plane crash on beach in summer 2013, windy, plane flipped, head injury
- Wren Air plane crash in November 1992, landed on sandbar, flying during icy weather, there was ice flowing on the river, river was not frozen, the plane was overloaded with groceries, 3 passengers and 1 child, adults had strained backs and head injuries, baby had a broken leg, at risk for drowning, had to be saved by boats
- Was a boating accident 4 years ago, two boats crashed into each other, it was dark at night and they did not have lights, both boats were totaled, minor injuries (aches and pains) had to check into clinic
- Winter 2017, VPO car slid off road into ditch due to snow/ice, had to be pulled out

Attachments:

1. Planning Team Meeting Sign-in Sheet
2. Planning Team Meeting Agenda
3. Worksheet #4: Vulnerability Statements
4. Worksheet #5: Mitigation Goals
5. Worksheet #6: Mitigation Strategies
6. Safety Plan Candidate Emphasis Areas
7. Safety Implementation Plan Notes
8. Public Meeting Sign-in Sheet
9. Public Meeting Flyer
10. Public Meeting Handouts
11. Public Meeting Presentation Slides

End Meeting Minutes

CC: File

Planning Team Meeting

Ekwoḡ Tribal Hazard Mitigation Plan (2019 - 2024) & Tribal Transportation Safety Plan

Date / Location: October 9, 2018

Sign In Sheet

[illegible]

HAZARD MITIGATION PLAN & TRANSPORTATION SAFETY PLAN

PLANNING TEAM MEETING AGENDA

Hazard Mitigation Plan

- | | |
|----------|--|
| 12:00 PM | Introductions
Project Background & Schedule |
| 12:15 PM | Review Worksheets 4 & 5 |
| 12:30 PM | Worksheet 6 – Mitigation Action Plan |
| 1:15 PM | Additional Questions |

Transportation Safety Plan

- | | |
|---------|------------------------------------|
| 1:30 PM | Determine Emphasis Areas |
| 2:00 PM | Implementation Plan Matrix |
| 2:45 PM | Closing Statements
Action Items |
| 3:00 PM | BREAK |

4:00 PM	COMBINED PUBLIC MEETING (2 HOURS)
---------	--

WORKSHEET #4: VULNERABILITY STATEMENTS

Based on the information gathered in Worksheets #1 through #3, develop “Vulnerability Statements” i.e. Problem Statements, and list them below in the space provide. These statements will guide you to determine mitigation goals and later, mitigation actions.

These statements should summarize the most significant risks and vulnerabilities in the community based on the information collected during the hazard analysis and risk analysis. For example, if you identified Avalanche as a significant hazard, and determined an asset such as the Clinic to be located in an avalanche zone, the Clinic may be a community vulnerability.

Below is a small set of examples.

- The North Creek Sewage Treatment Plant is located in the 100-year floodplain and has been damaged in past events.
- Newberg City recently annexed the South Woods area located in the wildland-urban interface. The City’s land use and building codes do not address wildfire hazard areas. Future development in South Woods will increase vulnerability to wildfires.
- The lighthouse, of significant historic value, is threatened by erosion from coastal flooding. The rate of erosion is 5 feet per year.
- Residents of the Village describe ground failure impacts such as some homes and facilities sinking on their pilings, particularly in the downtown “old town” area.
- The boardwalk to the new school, which is used for evacuation, has ground failure damage.
- The community’s marine fuel header has begun to sink into the ground and slant to one side.

Community Vulnerability Statements:

**Note: You many have more or less than 17 statements.*

- 1.) Drought impacts subsistence foods, increases fire risks, decreases river water levels and impedes navigation. Insects are impacted and different birds and other species come into the area. Drought can lead to lower water for drinking wells. Low river levels can impact delivery of critical resources such as heating oil, diesel generation for electricity, and other goods delivered by barge. Low river levels can negatively impact spawning areas available for salmon.
 - 2.) Flood could impact underground infrastructure such as water and sewer system, lead to chemical spills and lead to liquefaction of soils. Sewage can seep into Klutuk Creek and Nushagak River. Backs up houses through man-holes.
 - 3.) For the Ekwok area temperatures over 80 degrees Fahrenheit are considered extreme. Extreme heat ruins subsistence fish, moose, and caribou harvest. Extreme heat harms subsistence fish, wildlife, and vegetation. All residents are distressed by extreme heat. There is no air conditioning. Extreme heat also increases dust plumes which negatively impacts the health of everyone, especially those with respiratory problems.
 - 4.) Structures in low lying areas are at risk of flood. Bulk fuel storage and water wells are both in low lying areas. AVEC power plant is down by the bulk fuel storage. Sewer system is down in low lying areas.
-
-

- 5.) Landslides along the Nushagak River, are associated with high rain that saturates the soil, snow melt, and ice jams. These can impact different species of salmon. Along the bank, homes are endangered.

Community Vulnerability Statements (Continued):

- 6.) Severe winter storms cause power outages and hinders the ability to evacuate for medical emergencies. Severe winter storms like snow and ice impact the airport and make it so that planes cannot fly in our out. Severe winter storms impact residents while driving to employment and around the community.

- 7.) The impacts from ash can be from volcano eruptions down the Alaska Peninsula and Aleutian Peninsula or from Mount Redoubt. The corrosive properties of the ash are harmful to equipment and detrimental to health, especially for those with breathing difficulties. A volcano eruption can shut down air transportation.

- 8.) Wildfire can destroy structures and vegetation. The smoke is harmful to health especially for those with breathing difficulties. Smoke from the wildfires can ruin subsistence fish in smoke houses and drying racks. (Community Fire Conflagration can cause injuries and fatalities, and destroy structures and vegetation. The smoke is harmful to health, especially for those with breathing difficulties.)

- 9.) Windstorms can damage roofs of structures, blow down the VHF and possibly the cell tower. There are many trees all around town that can also cause possible damage to utilities and structures during high wind events.
-

- 10.) Erosion occurs along the river and is associated with rain, wind, snow melt, and ice jams.
-

- 11.) Severe fall storms bring high winds and freezing rain. (nothing move, not able to get foods, medicines, mail)
-

- 12.) Extreme cold in the summer has the potential to impact plant growth and disrupt subsistence activities.
-

- 13.) Residents are unable to travel and harvest needed subsistence foods due to warmer winters. (moose December hunt, ice fishing, caribou hunting)
-

- 14.) _____
-

- 15.) _____
-

- 16.) _____
-

WORKSHEET #5: MITIGATION GOALS

Mitigation goals are general guidelines that explain what the community wants to achieve with the Tribal Hazard Mitigation Plan. They are broad policy-type statements that are long-term, and represent the vision for reducing or avoiding losses from the identified hazards.

The following are a few examples of mitigation goals.

- Promote development that is disaster-resistant.
- Build capacity of the Tribe to prepare, respond to, and recover from disasters.
- Reduce possibility of damages from [disaster].
- Promote recognition and mitigation of all natural hazards that affect the Community.
- Prevent damage to structures and infrastructure.
- Promote cross-referencing of mitigation goals and actions with other Tribal planning mechanisms and projects.

Using the previously created vulnerability statements as a guide, and the provided examples, create the Community Tribal Hazard Mitigation Plan (THMP) Mitigation Goals.

Mitigation Goals:

**Note: You may have more or less than 17 statements.*

1.) Disaster preparedness is a high priority. Build capacity of the Tribe to prepare, respond to, and recover from disasters. _____

2.) Prevent further damage of erosion along riverbanks and roads. _____

3.) Improve community safety and awareness for severe winter weather. _____

4.) To be prepared and ready to fight wildfires and all structure fires within our boundaries. _____

5.) Improve community safety and awareness for drought _____

6.) Improve community safety and awareness for earthquakes. _____

Mitigation Goals (Continued)

7.) Improve community safety and awareness for extreme temperatures. (Extreme cold and extreme heat) _____

8.) Improve community safety and awareness for floods. _____

9.) Improve community safety and awareness for landslides. _____

10.) Improve community safety and awareness for severe wind. _____

11.) Improve community safety and awareness for volcanos. _____

12.) _____

13.) _____

14.) _____

15.) _____

16.) _____

17.) _____

Worksheet #6 Mitigation Actions

ACTIONS
Column B2
Description
Having the proper emergency plans in place along with educated responders. (Developing emergency plans)
Emergency response equipment is a priority. Educating residents of the need to be prepared. (Obtaining appropriate emergency equipment. Educating the public about preparedness)
Educate (School presentations)
Identify community members to respond to emergency (EMT Training)
Drought - drinking water back up (emergency stash), awareness about extra water in newsletter (ongoing), educating about water treatment, water truck
Earthquake - educate about earthquake safety, educate operators, back up person for shut off for heating oil tanks
Erosion - netting/vegetation, steel piling (determine is possible), riprap, add grass seeds, grade down to slope, cut trees, educate community about ways to prevent erosion around homes,
Extreme Cold - Flyers about appropriate clothing, remind at winter inspect heat tape (gut tape) plug in, extra firewood, Winterize home. Flyers with checklist for winterizing home (oil unclogged, chimney...). Magnet on fridge.
make emergency kit - 72 hour kit (work with kids in summer to build a kit)
Extreme Heat - fans, drink water (stay hydrated), black out curtains, know the symptoms of heat stroke, pet safety

Worksheet #6 Mitigation Actions

ACTIONS
Column B2
Description
Flood - consider new location for bulk fuel farm, muster point for flood, notify community to get fuel if area may be flooded , build up roads (add a crown and widen), improve drainage, need grader
Landslides - awareness, trail maps (circle areas that are susceptible),
Severe Wind - make roof tied down appropriately, AVEC lines safe (Cut dead trees close to power lines), back-up generator for clinic,
Severe Winter Weather - educate for proper clothing, heating sources working, back up fuel in home, wood, frostbite hyperthermia awareness, safety kit, tripod maintenance (winter travel)
Volcano - educate about air quality, mask and goggles, pet safety(bring in pets)
impacts from dust, water truck, coordinate with DOT about dust issue, masks and goggle, educate residents about using second well to protect

Ekwok Tribal Transportation Safety Plan
Candidate Emphasis Areas

Emphasis Area	Strategic Linkage	Potential Strategies
Intoxicated Driving	<ul style="list-style-type: none"> • 57% of surveys marked as high priority (4th highest) • 2 crashes involved drug or alcohol use • 6 DUI/DWI citations in 2018 	<ul style="list-style-type: none"> • Community awareness & education • Enforcement
Road Improvements	<ul style="list-style-type: none"> • Existing conditions, potholes, drainage issues • 67% of surveys marked intersection safety as high priority (3rd highest) 	<ul style="list-style-type: none"> • Resurface & widen roads • Improve trails • Improve drainage
Road & Trail Maintenance	<ul style="list-style-type: none"> • 52% of surveys marked icy roads as high priority (5th highest) 	<ul style="list-style-type: none"> • Brush cutting • Pothole repair • Snow plowing
School Zone Safety	<ul style="list-style-type: none"> • No existing traffic controls or designated school zone 	<ul style="list-style-type: none"> • Install school zone signs • Volunteer traffic controllers • Police presence before school
Speeding / Dust	<ul style="list-style-type: none"> • 81% of surveys marked dust as high priority (highest) and 52% marked speeding • 2 crashes involved excessive rate of speed 	<ul style="list-style-type: none"> • Install street signs • Dust control • Enforcement
Pedestrian Safety	<ul style="list-style-type: none"> • 3rd most common travel mode (survey data) • 48% of surveys marked lack of streetlights a high priority 	<ul style="list-style-type: none"> • Widen road shoulders • Install streetlights • Community awareness
Young Drivers	<ul style="list-style-type: none"> • 71% of surveys marked lack of helmets as high priority (2nd highest) 	<ul style="list-style-type: none"> • Helmet program • Driver's education • ATV age limit
Bridge Safety	<ul style="list-style-type: none"> • Issues with people driving down embankment causing erosion 	<ul style="list-style-type: none"> • Install seasonal stream crossing bridges on trails • Protect Klutuk Bridge
Law Enforcement	<ul style="list-style-type: none"> • Several suggestions to improve enforcement on survey 	<ul style="list-style-type: none"> • Driver's license requirements • Improve drunk driving patrols

Emphasiss Area #1			Strategic Linkage			
Intoxicated Driving						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	Safety Course at school, Drunk Driving Campaign, Flyers, Troopers teach, Encourage communication in the community.		Wellness committee			
Enforcement	Maintain VPO,					
Engineering						
Emergency Services	Maintain VPO, Maintain Health Aid					

Emphasiss Area #2			Strategic Linkage			
Road Improvements						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	community awareness about construction projects, street signs, intersection s					
Enforcement	Traffic control during construction					
Engineering	resurface, redesign drainage, improve trails (trail markers)					
Emergency Services	resurfacing roads, drainage		City;			

Emphasiss Area #3			Strategic Linkage			
Road and Trail Maintenance						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	Education for operators,					
Enforcement	Maintenance Plan					
Engineering	Inspect trails, clean out culverts, fill in potholes, protection during winter months for the bridge					
Emergency Services	Trail markers (add, maintain, GPS mark for trail markers)					

Emphasiss Area #4		Strategic Linkage				
Speeding / Dust Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	Newsletters (dust and speeding), community awareness about speeding and courteous driving,					
Enforcement	Street signs / speed limit signs / School Zone					
Engineering	work with DOT for airport dust control, widen roads					
Emergency Services	Maintain VPO					

Emphasiss Area #5			Strategic Linkage			
Pedestrian Safety						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	Reflective tape (supply for kids through school), bike lights					
Enforcement	Encourage parents to enforce good pedestrian safety					
Engineering	Street lights (install more), Widen roads					
Emergency Services	Replacing street lights					

Emphasiss Area #6			Strategic Linkage			
Young Drivers						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	Driver education / presentation on helmets at school, community meeting		School; VPO; health aide			
Enforcement	Parents enforce helmets					
Engineering	Wider Roads					
Emergency Services	Helmet programs (snow machine helmets)					

Emphasiss Area #7			Strategic Linkage			
Animal Control						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	Educate resident about chaining up pets					
Enforcement	Enforce city ordinance					
Engineering	brush cutting					
Emergency Services	patrol					

Emphasiss Area #8		Strategic Linkage				
Vehicle Maintenance						
Objectives						
Success Indicators						
4Es	Actions	Target Output	Responsible Parties	Date of Completion	Performance Measures	Monitoring and Evaluation
Education	mechanical training (small engine repair)					
Enforcement						
Engineering	research ways to to get rid of waste oil					
Emergency Services						

Community Meeting

Ekwok Tribal Hazard Mitigation Plan (2019 - 2024) & Tribal Transportation Safety Plan

Date / Location: October 9, 2018 at 4 PM / School Gym

Sign In Sheet

Name	Name	Name
Sophia Kaleak	Judy Walcott	
Jamie Karwotzi	George Taylor	
Christian Alder Sr	Dana Taylor	
Sylvia Kazimirovich	Dana Hermer	
Karen Kazimirovich	Mickia Walcott	
Joseph K & S / mirowis		
Madison Kazimirovich		
Kendra Jensen		
Juanita Jensen		
Crystal Jensen		
Angel Valdez		
Christian Valdez Jr		
Quinn King		
Nelda Oh		
Alice Karashti		
Matrona Nickolas		
Matt White		
Angela Bennett		

★

★ - Anna Okelbak



EKWOK TRANSPORTATION SAFETY PLAN & HAZARD MITIGATION PLAN

COMMUNITY MEETING

Come learn about two new projects in the works! The first is a Tribal Transportation Safety Plan, which proposes strategies to improve safety of local roads, trails, boating facilities, and airport. The second project is a Tribal Hazard Mitigation Plan, which proposes strategies to protect the community against natural disasters such as wildfires, floods, earthquakes, & more.

We want to hear from you!

Attendees can provide input about safety and hazard priorities for the community. The project planners will be available for any questions or feedback from the public.

Posting date 9/28/2018

Tuesday
October 9, 2018
4:00 PM

School Gym

Refreshments

Door Prizes

Discuss the
future of Ekwok!

For more information or to
submit comments contact:

Jackie Wander
(907) 563-0013
jwander@bristol-
companies.com

Bristol



ENGINEERING
SERVICES COMPANY, LLC

Bristol



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fax (907) 563-6713
www.bristol-companies.com

Community Meeting Handout Ekwok Tribal Transportation Safety Plan October 9, 2018

Dear Participant;

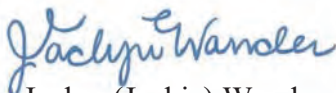
Thank you for attending the public meeting for the Ekwok Tribal Transportation Safety Plan project. Your participation is crucial to the planning process. We appreciate any feedback you may have on this meeting or the project in general.

Bristol Engineering has been contracted by Bristol Bay Native Association (BBNA) on behalf of the Ekwok Village Council to develop a Tribal Transportation Safety Plan (TTSP) for your community. A TTSP is a collaborative and comprehensive document that identifies transportation safety issues and strategies to address them. The overarching goal is to reduce risk of car crashes, fatalities, and injuries on the local transportation system. The TTSP is also essential for obtaining funding for safety projects. The TTSP project is currently at the Draft report level. After this public meeting, Bristol will incorporate public comments into a Final Draft TTSP, which will be submitted to the Council for review.

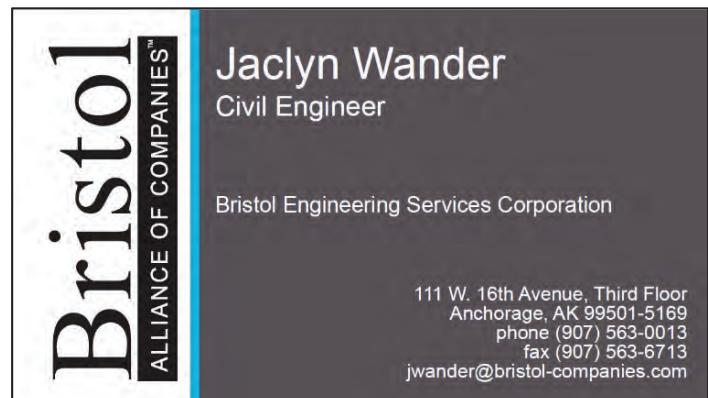
The purpose of this public meeting is to present the Draft TTSP to the community, as well as better understand the community's transportation safety priorities. Priorities can be any project or program aimed at improving safety for any mode of travel including roads, trails, pedestrian features, boating and aviation facilities, and more. Your comments will help determine emphasis areas for the plan.

Public comment is key to a successful project. Please feel free to contact me directly with any comments or concerns. I can be reached by email at jwander@bristol-companies.com or by phone (907) 743-9314.

Sincerely,



Jaclyn (Jackie) Wander
Civil Engineer II





Community Meeting for Ekwok Tribal Hazard Mitigation Plan October 9, 2018

Dear Participant;

Thank you for attending the public meeting for the Ekwok FEMA Tribal Hazard Mitigation Plan (THMP). Your comments and participation are very important to the planning process. We appreciate any feedback you may have on this meeting or the project in general.

Bristol Bay Native Association (BBNA) Department of Transportation and Infrastructure Development (DOTID) has contracted Bristol Engineering Services Company, LLC (Bristol) to assist with the preparation of the FEMA THMP. The THMP is a planning document used to identify hazards that your community is exposed to and ways to reduce potential losses of important assets from these hazards. A FEMA approved and community adopted THMP enables the Local government to apply for grants through disaster related assistance programs like the Hazard Mitigation Grant Program (HMGP), Pre-Disaster Mitigation (PDM), and others.

The purpose of this public meeting is to inform the community about the THMP, collect community feedback about the identified hazards and mitigation actions / projects. We are looking for personal experiences with the identified hazards, and assistance with identifying problem areas and issues of concern. We would also like input on the identified mitigation strategies and ways that the Planning Team can keep the public informed and involved in the process. This information will be used in the THMP. A draft copy will be available for review when completed.

Public comment is key to a successful project. Please feel free to contact me directly with any comments or concerns. My email is ddance@bristol-companies.com.

Sincerely,

Danielle Dance
Civil Engineer I

Attachments:

- Newsletter
- List of Preparedness Resources
- 12 Ways to Prepare Postcard





This newsletter describes the Bristol Bay Native Association Transportation and Infrastructure Department's Tribal Hazard Mitigation Planning project development processes to all interested agencies, stakeholders, and the public and to solicit comments. It can also be viewed on the BBNA's website at www.bbna.com

Bristol Bay Native Association (BBNA) Transportation and Infrastructure Department (DOTID) was awarded a Pre-Disaster Mitigation Program grant from the Federal Emergency Management Agency (FEMA) to prepare your 2019 Tribal Hazard Mitigation Plan (THMP). Bristol Engineering Services Company, LLC (BESC) was contracted to assist the BBNA DOTID with preparing a 2019 FEMA approvable THMP plan.

The THMP will identify all natural hazards, such as earthquake, flood, erosion, severe weather, and wildland/tundra fire hazards, etc. The plan will also identify the people and facilities potentially at risk and ways to mitigate damage from future hazard impacts. We will document the public participation and planning process as part of this project.

What is Hazard Mitigation?

Hazard mitigation projects eliminate the risk or reduce the hazard impact severity to people and property. Projects may include short- or long-term activities to reduce exposure to or the effects of known hazards. Hazard mitigation activities could include relocating or elevating buildings, replacing insufficiently sized culverts, using alternative construction techniques, developing, implementing, or enforcing building codes, or developing, and implementing education programs.

Why Do We Need A Hazard Mitigation Plan?

Communities must have a State, FEMA approved, and community adopted mitigation plan to receive a project grant from FEMA's pre- and post-disaster grants identified in their Hazard Mitigation Assistance and other agency's mitigation grant programs. BBNA DOTID plans to apply for mitigation funds after our plan is complete.

A FEMA approved and community adopted THMP enables the Local government to apply for the Hazard Mitigation Grant Program (HMGP), a disaster related assistance program; the Pre-Disaster Mitigation (PDM), and the National Flood Insurance Program (NFIP) Flood Mitigation Assistance (FMA) grant programs.

The Planning Process

There are very specific federal requirements that must be met when preparing a FEMA approvable THMP. These requirements are commonly referred to as the planning process requirements of 44 CFR 201.7 (c)

The following steps describe the planning process in order to develop the THMP.

1. **Establish the Planning Team**
2. **Education of the Planning Team**
3. **Assess Risks**
4. **Assess Capabilities**
5. **Develop a Mitigation Strategy**
6. **Monitor, Evaluate, and Plan Updates**

We are currently in the very beginning stages of preparing the plan development. We will be conducting a Planning Team Meeting to introduce the project and planning team, to gather comments from community residents, identify hazards, and collect data to refine the vulnerability assessment.

We Need Your Help

BESC has prepared survey packets to begin collecting information for your THMP. Survey packets will be mailed to your village council and sent by email to your village administrator.

Establishing a Planning Team is a very important step.

We will need a point of contact (POC)/team leader from your community. This group will consist of 2-5 people that have good knowledge about land use, the transportation system, public facilities, and safety resources within the community. BBNA DOTID will be in contact with your tribe to determine a POC and your planning team.

Once the Planning Team has been developed, they will begin to work on the following items:

- Identifying the hazards that impact your community;
- Determining information about the hazards such as, location, history, extent, and the probability of future events;
- Completing a risk analysis, and;
- Developing problem statements and goals.

BBNA DOTID will be in contact with your tribe to set up an initial teleconference meeting with the Planning Team, BBNA DOTID, and BESC to continue to work on the THMP development.

The BBNA DOTID team will be led by Annie Fritze, DOTID Program Manager or Dan Breeden, Department Director with assistance from Bristol Engineering Service Company, LLC (contracted by BBNA). BESC will be developing materials and lead the planning process with guidance from BBNA DOTID staff.

BBNA Tribal Hazard Planning Team

Team Member	Title	Involvement
Annie Fritze	Program Manager	THMP Team Leader, data gathering and plan review
Dan Breeden	Department Director	THMP Team Leader, data gathering and plan review
Isaac Pearson, P.E.	Senior Engineer	THMP Consultant
Danielle Dance	Civil Engineer	THMP Consultant

Public Participation

The purpose of this newsletter is to keep you informed, and to allow you every opportunity to voice your opinion regarding these important projects. We want to encourage public involvement as a continuous effort throughout the project.

We encourage you to take an active part in the development effort, and preparation of the Tribal Hazard Mitigation Plan.

The goal is to receive comments, identify key issues or concerns, and improve mitigation ideas, and to guide the community.

Please contact BBNA DOTID program staff or BESC if you have any questions, comments, or requests for more information:

Bristol Bay Native Association DOTID Annie Fritze OR Dan Breeden PO Box 310 Dillingham, Alaska 99576 (907) 842-6219	Bristol Engineering Services Company, LLC Danielle Dance, Consultant 111 W. 16th Avenue, Third Floor Anchorage, Alaska 99501 (907)563-0013
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Useful web links

Volcano Information

- Visit the AVO website: www.avo.alaska.edu
- Sign up for the VNS: <https://volcanoes.usgs.gov/vns2/>
- Ash Impacts website: https://volcanoes.usgs.gov/volcanic_ash
- Ashfall advisories come from the NWS: www.weather.gov/afc/
- AVO would *love* your volcano observations and ash samples
 - Find us at www.avo.alaska.edu/contact.php/
 - Is Ash Falling: www.avo.alaska.edu/ashfall/ashreport.php
 - Collection instructions: <https://avo.alaska.edu/ashfall.php>
 - Facebook: <http://facebook.com/alaska.avo>
 - Twitter: http://twitter.com/alaska_avo
- Air Quality Advisories, DEC: <http://dec.alaska.gov/air>
- Airborne ash hazards to aircraft, NOAA: <http://aawu.arh.noaa.gov>
- Local Notice to Mariners, USCG: www.navcen.uscg.gov

Weather Information

- Watches and Warnings: <https://alerts.weather.gov/cap/ak.php?x=1>
- Any forecast: <http://www.weather.gov/afc>
- Mobile information (low bandwidth): <http://www.weather.gov/source/afc/mobile/>
- River Information: <http://www.weather.gov/aprfc>
- Rainfall: <http://www.weather.gov/aprfc>
- Breakup Info: <http://www.weather.gov/aprfc/breakupESRIMap>
- River Conditions: <http://www.weather.gov/aprfc/riverConditions>
- Alaska Weather T.V. Maps: <http://www.weather.gov/afc/tv>
- Sea Ice forecasts: <http://www.weather.gov/afc/ice>
- Outlook (temperatures and precipitation): <http://www.cpc.noaa.gov>
- Send us a storm report:
http://www.srh.noaa.gov/StormReport_new/SubmitReport.php?site=AFC

WEBSITES

- Alaska DHS&EM: <http://ready.alaska.gov>
- Ready, Department of Homeland Security: <https://www.ready.gov/>
- Department of Commerce, Community and Economic Development (DCCED), State of Alaska Floodplain Management: <http://www.commerce.state.ak.us/dca/nfip/nfip.htm>
- Flood information for Alaskans: <http://www.flood.alaska.gov>
- Association of State Floodplain Managers: <http://www.floods.org/>
- Alaska-Pacific River Forecast Center (APRFC): <http://aprfc.arh.noaa.gov>
- Natural Resources Conservation Service (NRCS), Alaska Snow, Water and Climate Services: <http://ambcs.org>
- National Weather Service (NWS), Alaska Region Headquarters: <http://www.arh.noaa.gov/>
- Federal Aviation Administration (FAA), Alaskan Region's Weather Cameras: <http://avcams.faa.gov/>
- U.S. Department of the Interior—Bureau of Land Management (BLM), Alaska Fire Service: <http://fire.ak.blm.gov/>
- Alaska Energy Authority (AEA): <http://www.akenergyauthority.org/>
- Department of Commerce, Community and Economic Development (DCCED), Community Profiles: <http://www.commerce.state.ak.us/dca>
- Alaska Department of Public Safety, Rural Fire Training Office: <http://www.dps.state.ak.us/fire/TEB/ruralfireprotection.aspx>
- Department of Environmental Conservation (DEC): <http://www.state.ak.us/dec/>
- National Weather Service, Forecast Office Alaska Ice Desk: <http://pafc.arh.noaa.gov/ice.php>
- Federal Emergency Management Agency (FEMA): <http://www.fema.gov/>
- American Red Cross of Alaska: <http://www.alaska.redcross.org>
- Small Business Administration: <http://www.sba.gov/localresources/disasteroffices/focwest/index.html>



FEMA

FEMA V-1021
Catalog No. 1872-3

April 2018

There are many ways to take action and prepare before a disaster occurs.
The actions on this card include some of the most important ways to help
yourself, your family, and your community increase your preparedness.
Simple actions at home and in your neighborhood can make a big difference!



@Readygov
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Ready.gov/prepare



12 WAYS TO PREPARE



Sign up
for Alerts
and Warnings



Make a Plan



Save for a
Rainy Day



Practice
Emergency
Drills



Test Family
Communication
Plan



Safeguard
Documents



Plan with
Neighbors



Make Your
Home
Safer



Know
Evacuation
Routes



Assemble or
Update
Supplies



Get Involved in
Your Community



Document and
Insure Property



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Bristol
Engineering Services Company, LLC

Ekwok Village
Public Meeting
October 9, 2018

Ekwok Village Council Tribal Transportation Safety Plan

Bristol Engineering Services Company, LLC
Jackie Wander, Civil Engineer II

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Public Meeting
October 9, 2018

Safety Minute



Code Zero means zero incidents, zero injuries, and zero losses. Code Zero positively influences how we think and act. **Safe work is the Bristol way.**

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Public Meeting
October 9, 2018

Presentation Overview

- What is a Safety Plan?
- Importance of Safety Plans
- The Four E's of Safety
- Steps to Develop Safety Plans
- Data Collection & Surveys
- Emphasis Areas
- Implementation Plan
- Next Steps
- Questions / Comments
- Break**
- Hazard Mitigation Plan
- Door Prizes!



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Tribal Transportation Safety Plan

"A Transportation Safety Plan is a collaborative and comprehensive document that identifies transportation safety issues and strategies to address them. Effective Transportation Safety Plans lead to projects that make the transportation system safer."

~ U.S. Department of Transportation Federal Highway Administration
Developing a Transportation Safety Plan

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Tribal Transportation Safety Plan

- Uses Data to Guide Transportation Investment Decisions
- Mechanism to Coordinate Safety Efforts
 - Engage leadership/stakeholders
 - Collect/analyze data
 - Determine emphasis areas
 - Identify strategies



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Importance of Safety Plans


- Proactive Approach to Planning
 - Prevents crashes
 - Improves unsafe transportation conditions
- Addresses Most Critical Safety Needs
- Develops Partnerships
- Fosters Multidisciplinary Cooperation
- Increases Access to Safety Funding

"Planning with safety in mind saves lives"

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Four E's of Safety

- ▶ **EDUCATION**
 - Gives drivers information about making good choices
 - Informs about rules of the road
- ▶ **ENGINEERING**
 - Addresses roadway infrastructure
- ▶ **ENFORCEMENT**
 - Enforces traffic laws
 - Provides visible police presence
- ▶ **EMERGENCY SERVICES**
 - Provides rapid response
 - Quality of care when responding to collisions causing injury




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Safety Plan Development

- ▶ Step 1 – Establish Safety Leadership Framework
- ▶ Step 2 – Collect & Analyze Safety Data
- ▶ Step 3 – Determine Emphasis Areas
- ▶ Step 4 – Identify Strategies
- ▶ Step 5 – Prioritize/Incorporate Strategies
- ▶ Step 6 – Draft a Plan
- ▶ Step 7 – Evaluate/Update the Transportation Safety Plan





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Data Collection

- ▶ Crash Data
- ▶ Traffic Citations
- ▶ Public Surveys

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Crash Data

- ▶ 2 Reported Crashes from AKDOT
 - December 2015
 - Gravel Pit Road
 - Snowing, unlit roadway, icy road surface
 - Suspected alcohol use, vehicle in ditch
 - August 2017
 - Gravel Pit Road
 - Accelerating in roadway, vehicle in ditch
 - Two occupants, no seatbelts, minor injuries



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Citation Data

- ▶ 2018 Citations from VPSO

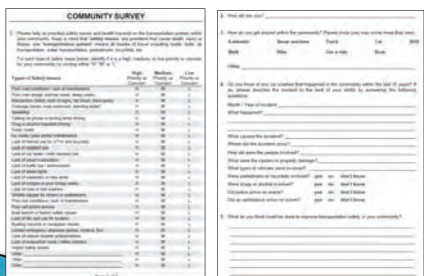
Citation Type	Quantity in 2018
Driving under the influence (DUI)	4
Driving while impaired (DWI)	2

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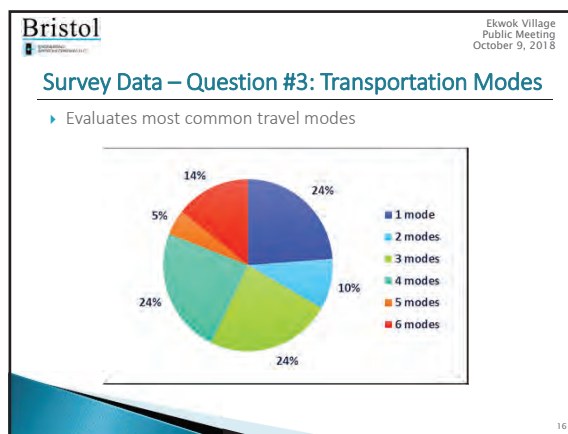
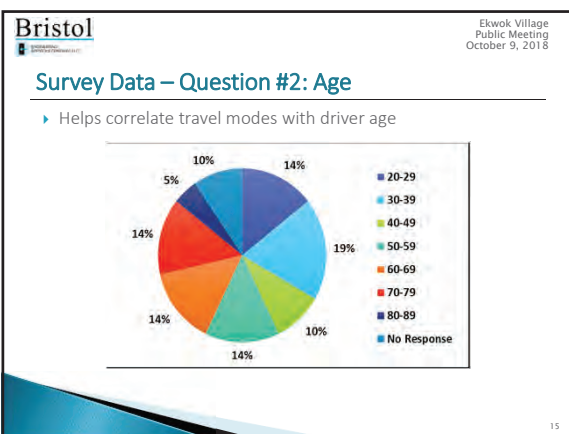
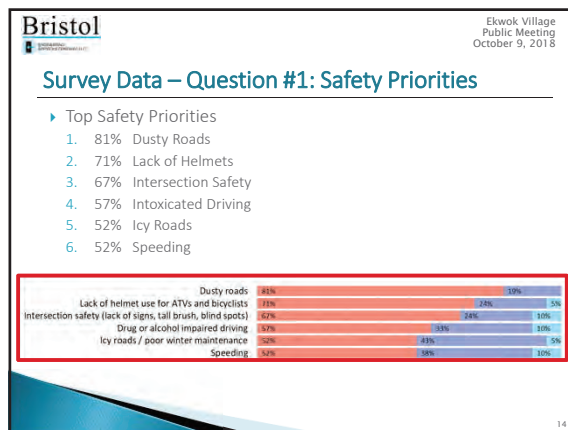
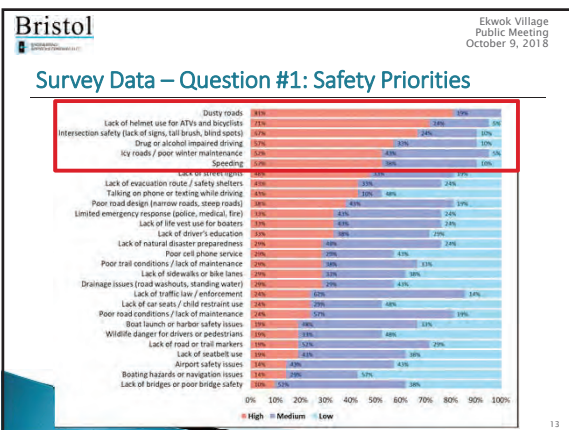
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Public Surveys

- ▶ 21 total surveys received!



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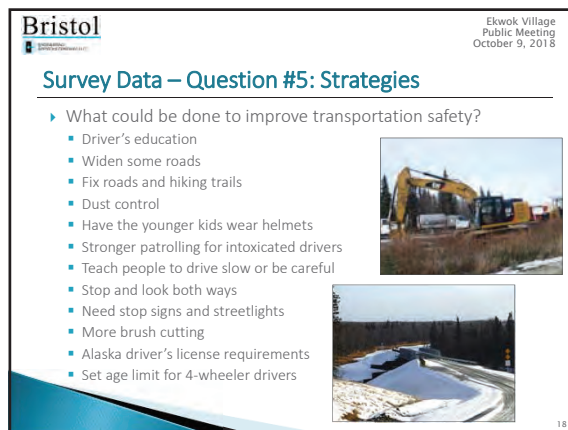


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Survey Data – Question #4: Car Crashes

One response

Month	July
Year	2008
Incident	Rollover
Cause	Speeding
Location	Post Office
Age	40
Injuries	Face cuts
Property Damage	Not Reported
Vehicle Types	Yamaha, 4-wheeler
Pedestrian Involvement	No
Drug or Alcohol Use	Yes
Police on Scene	No
Ambulance on Scene	No



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Emphasis Areas

- ▶ Intoxicated Driving
- ▶ Road Improvements
 - Widen & resurface
 - Improve drainage
 - New street signs
- ▶ Road & Trail Maintenance
 - Snow plowing
 - Pothole repair
 - Brush cutting
- ▶ Speeding
 - Dust control
 - School zone signs
- ▶ Pedestrian Safety
 - Streetlights
 - Community awareness
- ▶ Young Drivers
 - Helmets
 - Driver's education
- ▶ Animal Control
 - Loose dogs
 - Wildlife
- ▶ Vehicle Maintenance
 - Used oil disposal
 - Mechanical training

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Implementation Plan

EMPHASIS AREA #3		STRATEGIC LINKAGE				
OBJECTIVES		<ul style="list-style-type: none"> 60% of survey respondents ranked "speeding" as a high priority, making it the all highest community safety priority reducing speed bumps was the second most common suggestion in the community survey regarding actions to improve transportation safety 				
SUCCESS INDICATORS		<ul style="list-style-type: none"> At least 2 out of 6 reported car crashes involved excessive rate of speed 				
AREA	ACTIONS	TARGET OUTCOME	RESPONSIBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
Education	Install more speed limit signs around the community as needed	Improve awareness of speed limits	Transportation Coordinator, Tribal Administrator	Summer 2020	Number of speed limit signs installed or replaced	Inspect road signs once per year and repair or replace as needed
Enforcement	Work with the VPSO to increase speeders, as appropriate, increase VPSO presence in the school zone before and after school	Improve enforcement of speed limits and increase visibility of police force	Transportation Coordinator, Tribal Administrator	Ongoing	Reduced number of complaints from community members about speeders	Keep record of speeding complaints before and after installation of speed bumps
Infrastructure	Install painted speed bumps at four locations to reduce speeds, especially within the school zone or on streets with high pedestrian traffic	Reduce speeding on community streets, reduce the number of speeding-related car crashes	Transportation Coordinator, Tribal Administrator	Summer 2020	Number of speed bumps installed around the community, reduced number of speeding-related accidents	Keep record of speeding-related accidents before and after installation of speed bumps
Emergency Services	Monitor a local VPSO, coordinate with the community to improve quality of response to traffic accidents caused by speeding or other factors	Have reliable police and medical services within the community to improve quality of care during a transportation accident	Transportation Coordinator, Tribal Administrator	Ongoing	Number of days the VPSO patrolled the school zone, increased number of calls from the emergency response team	Schedule seasonal meetings with the VPSO & response team to monitor performance

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Next Steps



- ▶ Public Surveys
- ▶ Draft Safety Plan
 - November-December 2018
 - Collect public comment
- ▶ Final Draft Safety Plan
 - January-February 2019
 - Council review
- ▶ Final Safety Plan
 - June 2019
 - Resolution
- ▶ Implementation



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Questions / Comments

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Break

10 Minutes

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Ekwok FEMA Tribal Hazard Mitigation Plan

Bristol Engineering Services Company, LLC
Danielle Dance

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Presentation Overview

- ▶ Project Background
- ▶ FEMA Tribal Hazard Mitigation Plan (THMP)
- ▶ Funding
- ▶ Identified Hazards
- ▶ Assets
- ▶ Mitigation Goals
- ▶ Mitigation Action Plan





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Project Background

- ▶ BBNA DOTID awarded Pre-Disaster Mitigation Program grant from FEMA
 - Develop the Tribal Hazard Mitigation Plan
 - Contracted BESC
- ▶ Hazard Mitigation
 - eliminates risk to or reduces hazard impact severity to community assets
 - Projects can be long or short term
- ▶ Purpose of Plan
 - Identify ways to make community safer and more prepared
 - Provides opportunity for funding options through FEMA

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FEMA Tribal Hazard Mitigation Plan (THMP)

- ▶ Follows Code of Federal Regulations (CFR)
 - 44 CFR Part 201
- ▶ Identifies
 - Planning Process / Planning Team
 - Plan to keep the THMP current
 - Natural hazards in your community
 - Community assets
 - Mitigation strategy / action plan
 - Funding Opportunities




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Funding

- ▶ Eligibility Requirement for FEMA Pre- and Post- Disaster Grants
 - FEMA approved and community adopted Hazard Mitigation Plan
 - Plan identifies mitigation projects for the community
- ▶ Grants
 - Hazard Mitigation Grant Program (HMGP)
 - Pre-Disaster Mitigation (PDM)
 - National Flood Insurance Program (NFIP)
 - Flood Mitigation Assistance (FMA)
- ▶ Other Grant Opportunities
 - State
 - Tribal



U.S. Army Corps of Engineers Alaska District
Alaska Baseline Erosion Assessment
Erosion Information Paper - Ekwoik, Alaska
March 11, 2008

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Identified Hazards

- ▶ Hazards Identified Based on
 - Location
 - Extent
 - Probability of Future Event
 - Overall Significance
- ▶ Hazards Detailed in Plan
 - Location
 - Extent
 - History
 - Probability of Future Events
- ▶ Hazards
 - Drought
 - Earthquake
 - Erosion
 - Extreme Cold
 - Extreme Heat
 - Flood
 - Landslide
 - Severe Wind
 - Severe Winter Weather
 - Volcano
 - Wildfire
- ▶ What experiences have you had?

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Community Assets

- ▶ Asset
 - People
 - Economy
 - Built Environment
 - Natural Environment
- ▶ Major Community Assets
 - William "Sonny" Nelson School
 - Fire Hall
 - Clinic
 - Sewage Lagoon / Utilities
 - Public Well
 - Landfill
 - Roads
 - Trails
 - Fred Hurley Sr. Memorial Bridge
 - Airport
 - Fuel Tanks
 - Others




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Mitigation Goals

- ▶ Goals Based on Vulnerability Statements
 - Bulk fuel storage and water wells are at risk to floods.
 - Severe winter storms cause power outages and hinders the ability to evacuate for medical emergencies.
 - Wildfires can destroy structures and vegetation. The smoke is harmful to health. It has an impact on fish harvest.



FEMA Local Mitigation Planning Handbook March 2013

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Mitigation Goals


- ▶ Community Goals
 - Improve community safety and awareness of:
 - Drought
 - Erosion
 - Extreme Heat
 - Landslide
 - Severe Winter Weather
 - Wildfire
 - Earthquake
 - Extreme Cold
 - Flood
 - Severe Wind
 - Volcano
 - Be prepared and ready to fight wildfires and all structure fires within our boundaries.
 - Prevent further damage of erosion along riverbanks and roads.
 - Build capacity of the Tribe to prepare, respond to, and recover from disasters.

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Mitigation Actions

- ▶ Mitigation Actions Reduce Long-Term Vulnerability
- ▶ Types
 - Local plans and regulations
 - Structure and infrastructure projects
 - Natural systems protection
 - Education and awareness programs
 - Additional – Preparedness and Response Actions
- ▶ Actions Will be Used to Create a Mitigation Action Plan



FEMA Local Mitigation Planning Handbook March 2013

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Mitigation Actions (Continued)


- ▶ Mitigation Actions
 - Develop emergency plans
 - Obtain appropriate emergency equipment
 - Educate the public about preparedness
 - Emergency drinking water
 - The application of grass seed to slopes to reduce erosion.
 - Consider new location for bulk fuel farm.
 - Improve drainage.
 - Home winterization checklist.
- ▶ Safety Kits (72 hour kits)
- ▶ Cutting brush around community and homes and utility lines
- ▶ Acquiring fire equipment.
- ▶ What other suggestions do you have?

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Continued Public Involvement

- ▶ Public Involvement is Important
 - Next Steps
- ▶ How can the Planning Team keep you informed and involved in this process?



Contact	
BBNA DOTID	Bristol Engineering (BESC)
Annie Fritze (907) 842-6143 afritze@bbna.com	Danielle Dance (907) 563-0013 ddance@bristol-companies.com

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Questions or Comments

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APPENDIX B: COMMUNITY SURVEY RESULT SUMMARY

Community Survey Data

Question 1: Safety Priorities

*Note: Values in **red** are assumed due to some data discrepancy

Safety Issues / Priorities		Responses												Count				Priority														
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	H	M	L	High	Medium	Low	
Lack of bridges or poor bridge safety		M	L	M	M	M	L	L	M	L	M	M	L	M	M	L	M	M	H	L	H	L	M	M	M	M	2	14	8	8%	58%	33%
Airport safety issues		L	M	M	M	H	L	M	L	L	L	L	L	L	L	L	M	M	H	M	H	M	M	M	M	M	3	12	9	13%	50%	38%
Lack of seatbelt use		M	L	M	M	M	L	M	L	M	L	L	L	L	L	L	H	M	M	M	H	H	M	M	M	M	4	12	8	17%	50%	33%
Lack of road or trail markers		M	L	M	L	M	L	M	L	M	L	M	M	L	M	L	M	M	H	H	H	H	M	M	M	M	4	14	6	17%	58%	25%
Boating hazards or navigation issues		L	L	L	L	M	L	M	L	L	L	L	L	L	L	L	H	M	H	M	H	L	L	H	M	M	4	8	12	17%	33%	50%
Lack of car seats / child restraint use		L	L	L	M	H	M	L	L	M	L	L	L	L	L	L	H	M	H	H	H	H	M	M	M	M	5	9	10	21%	38%	42%
Wildlife danger for drivers or pedestrians		L	L	L	L	H	M	L	M	L	L	L	L	L	L	L	H	M	M	L	L	H	L	H	M	L	5	8	11	21%	33%	46%
Boat launch or harbor safety issues		M	L	H	L	M	M	M	L	M	L	L	L	L	L	M	L	M	H	H	L	H	L	H	M	L	5	11	8	21%	46%	33%
Poor road conditions / lack of maintenance		M	L	M	H	H	M	M	L	M	L	M	M	M	L	M	L	M	M	L	H	L	M	M	M	M	6	14	4	25%	58%	17%
Drainage issues (road washouts, standing water)		M	L	M	H	M	L	L	L	L	H	L	L	L	L	L	M	M	H	L	H	L	M	M	M	M	6	9	9	25%	38%	38%
Lack of traffic law / enforcement		M	L	M	M	H	M	L	M	L	M	M	M	M	M	M	H	M	M	H	H	M	L	L	H	M	6	13	5	25%	54%	21%
Poor trail conditions / lack of maintenance		L	L	M	M	M	L	L	M	M	M	L	L	M	L	L	H	M	H	H	H	L	M	M	M	M	6	11	7	25%	46%	29%
Poor cell phone service		L	L	M	H	M	L	L	L	L	L	L	L	L	M	M	L	H	H	H	H	L	M	M	M	M	6	8	10	25%	33%	42%
Lack of natural disaster preparedness		M	H	M	H	L	L	M	M	H	L	L	L	L	M	L	M	M	H	H	H	M	M	M	M	M	6	13	5	25%	54%	21%
Lack of driver's education		M	M	M	M	H	L	M	L	L	L	L	L	L	L	L	H	M	M	H	H	L	L	M	M	M	7	9	8	29%	38%	33%
Lack of sidewalks or bike lanes		M	L	H	L	M	L	L	M	L	L	L	L	L	L	L	M	M	M	H	H	H	L	M	M	M	7	8	9	29%	33%	38%
Lack of life vest use for boaters		H	M	M	M	H	M	L	H	L	L	L	L	L	M	M	H	M	H	H	H	M	M	L	M	M	7	11	6	29%	46%	25%
Talking on phone or texting while driving		L	L	L	H	H	M	L	L	L	H	L	L	L	M	L	L	H	L	L	H	L	M	M	L	M	9	4	11	38%	17%	46%
Limited emergency response (police, medical, fire)		L	L	M	M	H	M	L	M	H	M	L	L	L	H	M	H	M	H	M	H	M	H	M	H	M	9	10	5	38%	42%	21%
Poor road design (narrow roads, steep roads)		L	L	M	H	H	M	L	M	L	M	M	H	M	M	M	M	M	H	H	H	H	M	H	M	M	10	10	4	42%	42%	17%
Lack of evacuation route / safety shelters		H	H	H	L	H	M	L	M	H	M	L	L	M	L	L	H	M	H	H	H	M	M	M	M	M	10	9	5	42%	38%	21%
Speeding		M	H	M	H	H	M	L	M	L	L	H	H	M	L	M	M	H	M	H	H	M	M	M	M	M	11	11	2	46%	46%	8%
Lack of street lights		M	L	M	M	M	H	L	M	H	H	M	M	L	M	L	L	H	H	H	H	M	L	H	L	H	11	8	5	46%	33%	21%
Drug or alcohol impaired driving		M	H	H	H	H	M	L	M	L	H	H	M	M	L	L	H	H	H	M	H	M	M	L	M	L	12	9	3	50%	38%	13%
Icy roads / poor winter maintenance		M	H	H	H	M	M	M	H	H	M	M	M	M	M	M	H	H	H	L	H	H	L	H	M	L	13	9	2	54%	38%	8%
Intersection safety (lack of signs, tall brush, blind spots)		M	H	H	H	L	M	M	L	L	H	H	H	H	H	H	H	H	H	M	H	M	M	M	M	M	14	8	2	58%	33%	8%
Lack of helmet use for ATVs and bicyclists		H	H	H	M	H	M	L	M	H	H	H	H	H	M	H	H	H	M	H	H	M	M	L	H	M	16	6	2	67%	25%	8%
Dusty roads		H	H	H	H	M	H	M	H	H	H	H	H	H	H	H	H	H	M	H	H	H	H	M	H	M	19	5	0	79%	21%	0%
Other Responses		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24							
Dusty airport				H																												
Float planes flying/landing in front of village, too loud																																
While cleaning fish, boats making big waves, not slowing down																																
Street or road lights																																

EKWOK

Community Survey Data

Question 2: How old are you?

Survey Number	Response	Notes
1	62	
2	27	
3	-	Blank
4	-	Blank
5	26	
6	22	
7	72	
8	31	
9	50	
10	71	
11	63	
12	81	
13	74	
14	45	"40s"
15	35	"Mid 30s"
16	68	
17	59	
18	30	
19	39	
20	52	"2 + 50 ="
21	48	
22	55	
23	-	Blank
24	36	

Age Ranges	Count	Percent
20-29	3	13%
30-39	5	21%
40-49	2	8%
50-59	4	17%
60-69	3	13%
70-79	3	13%
80-89	1	4%
No Response	3	13%
Total	24	100%

EKWOK

Community Survey Data

Question 3: How do you get around within the community?

	1	2	6	3	9	7	8	4	5	10
Survey Number	4-Wheeler	Snow machine	Walk	Truck	Boat	Bike	Get a ride	Car	SUV	Other
1	X	X	X		X					
2	X	X			X			X		
3	X	X		X						
4	X	X	X	X	X	X				
5	X	X	X		X		X	X		
6	X									
7	X	X	X							
8	X									
9	X		X			X	X			
10	X									
11	X									
12	X	X	X	X						
13	X	X	X	X						
14	X			X						
15	X	X		X						
16	X	X	X							
17	X	X								
18	X	X	X							
19	X	X	X	X	X		X			
20			X							
21	X		X		X		X	X		
22	X	X	X	X	X	X				
23										
24	X	X	X	X	X	X				
Total	22	15	14	9	8	4	4	3	0	0

EKWOK

Community Survey Data

Question 3: Describe Car Crashes

Surv. No.	Mo.	Year	What happened	Cause	Location	Age of people involved	Injuries or property damage	Types of vehicles involved	Pedestrian or bike involved	Drug or alcohol use	Police on scene	Ambulance on scene
1	July	2008	Roll over	Speed	Post Office	40	Face cuts	Yamaha, 4-wheeler	No	Yes	No	No
2												
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												
13												
14												
15												
16												
17												
18												
19												
20												
21												
22	-	2017	Car went off narrow road	Slippery	HUD Road	20-30	Not too much, not hurt	1 car	Don't know	No	Don't know	No
23												
24												

*Only 2 responses, all other responses left blank or marked "none" or "N/A"

EKWOK

Community Survey Data

Question 5: What do you think could be done to improve transportation safety in your community?

Survey Number	Comments
1	Education
2	
3	Bike trails, safety signs, dust control
4	
5	Education with driving
6	
7	
8	
9	Widen some roads. During dry spells-roads get dusty-terribly-Get a truck that holds water to wet roads. Cut brush to where road meets. Fill potholes wherever needed right away.
10	Fix roads, hike trail, and place signs where needed
11	Speed limits and streetlights
12	Dust control
13	Dust control
14	
15	I believe having the younger kids wearing helmets would be great. Also have stronger patrolling for intoxicated persons would be good.
16	Education
17	
18	Teaching people to drive slow or careful even if don't see other drivers on the road. Someone might pop out of nowhere and won't have enough time to slow down.
19	Stop and look both ways, look out for other drivers. Need stop signs and streetlights.
20	Widen roads
21	Wider roads, more brush cut, and if driving cars require AK drivers license. Also, set age limit for 4-wheeler drivers.
22	Build roadways wider.
23	
24	More streetlights, wider roads, water car for the dust.

APPENDIX C: IMPLEMENTATION PLAN

IMPLEMENTATION PLAN

EMPHASIS AREA #1			STRATEGIC LINKAGE			
IMPAIRED DRIVING			<div>► 57% of survey participants marked "drug or alcohol impaired driving" as a high safety priority, making it the 4th highest community priority.</div> <div>► 2 of 4 reported crashes in Ekwok involved alcohol use. Ekwok VPO gave 4 DUIs and 2 DWIs in 2018.</div> <div>► Between 2008 & 2015, an average of 21 lives were lost per year on Alaska's roadways due to alcohol impairment, totaling over 200 fatalities in 8 years.</div>			
OBJECTIVES						
Improve intoxicated driving awareness, reduce number of DUI/DWI citations, reduce number of drug or alcohol related accidents						
SUCCESS INDICATORS						
Fewer DUI/DWI citations, fewer accidents caused by impaired driving						
4Es	ACTIONS	TARGET OUTPUT	RESPONSIBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Safety course at school, drunk driving campaign, flyers, encourage community effort to combat drunk driving.	Improve community awareness and education about the risks of impaired driving to discourage future incidences.	Wellness Committee, Children's Service Worker and Family Service Worker	On-going	Planning and scheduling of safety courses. Completed courses.	Schedule future courses.
ENFORCEMENT	Encourage and support VPO/VPSO to ticket impaired drivers.	Ensure a local police officer will continue to monitor and ticket offenders.	VPO, Village	On-going	Citations and arrests for impaired driving.	Coordinate regularly with VPO, discuss progress at monthly Council meetings.
ENGINEERING	N/A	N/A	N/A	N/A	N/A	N/A
EMERGENCY SERVICES	Maintain VPO and health aide.	Ensure local police and medical personnel are available to respond to car crashes and other emergencies.	VPO, BBAHC, Village	On-going	Police and clinic records of car crashes and other incidences.	Coordinate regularly with VPO and health aide, discuss progress at monthly Council meetings.

IMPLEMENTATION PLAN

EMPHASIS AREA #2			STRATEGIC LINKAGE			
ROAD & TRAIL IMPROVEMENTS						
OBJECTIVES						
Rehabilitate existing roads, improve driver safety and access, improve traffic control and visibility at intersections, improve drainage						
SUCCESS INDICATORS						
Completed road and drainage rehabilitation projects with new signs						
4Es	ACTIONS	TARGET OUTPUT	RESPONSIBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Community awareness about construction projects. Install intersection signs.	Keep public safe around construction zone. Improve traffic control and awareness in intersections.	Village, City	During construction	Community outreach measures. Determine appropriate signs and locations. Signs ordered and installed.	Replace or repair signs as needed.
ENFORCEMENT	Traffic control during construction.	Control traffic safely around road construction work.	Village, City	During construction	Completion and implementation of a Traffic Control Plan.	Coordination with project contractor.
ENGINEERING	Resurface and build up roads, improve drainage, install trail markers.	Remove potholes and reduce standing water on roadways. Improve navigability of trails.	Village, City	During construction, 2020 (trail markers, 2025)	Planning, funding, design, and construction activities. Installed trail markers.	Inspect and replace trail markers yearly, or as needed.
EMERGENCY SERVICES	Rehabilitate roads.	Ensure roads are smooth and accessible for emergency vehicles.	City	on-going	Planning, funding, design, and construction activities. Installed trail markers.	Coordination with project contractor. Road maintenance.

IMPLEMENTATION PLAN

EMPHASIS AREA #3			STRATEGIC LINKAGE			
ROAD & TRAIL MAINTENANCE						
OBJECTIVES						
Improve driver safety and access around the community, extend longevity of transportation facilities through maintenance efforts.						
SUCCESS INDICATORS						
More frequent road maintenance.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Operator training.	Educate operators to ensure road maintenance is performed properly.	Village, City	On-going	Completed training courses upon hiring new operators, and as needed in subsequent years.	Evaluate quality of maintenance activities and provide additional training, if needed.
ENFORCEMENT	Develop Maintenance Plan.	Clarify maintenance responsibilities, improve maintenance efforts, and enhance coordination between the City and Tribe.	Village, City	2019	Meetings between City and Tribe. Completed and approved Plan.	Abide by plan. Review plan annually and update, as needed.
ENGINEERING	Inspect trails, clean out culverts, grade potholes, protect bridge surface during winter, snow plowing.	Ensure culverts are free of debris to reduce standing water, remove potholes to keep roads smooth, extend the life of the bridge coating.	Village, City	On-going	Clean out culverts every spring. Rapid pothole mitigation and snow plowing. Place boards on bridge at the beginning of winter.	Discuss needed maintenance at monthly Council meetings. Create a maintenance schedule.
EMERGENCY SERVICES	Install and maintain trail markers. GPS trail coordinates.	Improve navigability of trails and search and rescue operations.	Village, City	2025	Seasonal workers hired to install trail markers.	Yearly inspection of trail markers and GPS trail coordinates.

IMPLEMENTATION PLAN

EMPHASIS AREA #4			STRATEGIC LINKAGE			
SPEEDING / DUST			<p>► 1 crash report indicates the vehicle was accelerating on the road; 1 anecdotal crash report indicates a rollover accident in 2008 involved a speeding ATV.</p> <p>► 52% of survey participants marked "speeding" as a high safety priority.</p> <p>► 81% of survey participants marked "dusty roads" as a high priority, making it the community's #1 safety concern.</p>			
OBJECTIVES						
Decrease speeding and reduce dust emissions.						
SUCCESS INDICATORS						
Implemented dust suppression strategy.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Newsletters about speeding issues, health risks of dust, and courteous driving behavior.	Improve community awareness about speeding and dust to reduce speeding incidences and exposure to dust.	Village	On-going	Official community outreach (newsletters, posted flyers, etc.)	Repost information in future newsletters. Evaluate other ways to continue education.
ENFORCEMENT	Install street signs and speed limit signs in the school zone.	Enforce speed limits, especially near the school where children walk and play.	Village, City	2020	Signs ordered and installed.	Keep brush clear around signs.
ENGINEERING	Work with Alaska DOT&PF for dust control on airport runway.	Reduce dust emissions on the airport runway.	Village	2019, On-going	Coordination with DOT, purchase water truck.	Water roads and runway, as needed during dry conditions.
EMERGENCY SERVICES	Retain VPO and VPSO positions	Ensure local police can respond to speeding related accidents and other emergencies.	Village	On-going	Funding, and coordinate with BBNA.	Regular coordination with VPO/VPSO

IMPLEMENTATION PLAN

EMPHASIS AREA #5			STRATEGIC LINKAGE			
PEDESTRIANS			<div>► 50% of survey participants said they walk to get around the community, in combination with other modes such as ATVs.</div> <div>► 48% of survey participants marked "lack of streetlights" as a high safety priority.</div>			
OBJECTIVES						
Improve safety and visibility of pedestrians.						
SUCCESS INDICATORS						
Installation / implementation of more pedestrian amenities.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Supply reflective tape and bike lights to students through school and educate on night time driving and walking.	Improve visibility of pedestrians in the dark.	Everyone	2019	Participation in Alaska's Bike-n-Walk Safety program. Supplies ordered and passed out to kids.	Order more supplies as needed for future students. Monitor and encourage use of reflectors.
ENFORCEMENT	Encourage community to enforce good pedestrian safety.	Improved community enforcement of pedestrian safety.	Everyone	On-going	Community outreach.	Evaluate additional enforcement strategies at monthly Council meetings.
ENGINEERING	Install more streetlights and widen roads.	Provide better illumination in the roadway and more walking space to separate vehicles and pedestrians.	Village, City	2024	Planning, funding, design, and construction tasks.	Coordination with project stakeholders and construction contractor.
EMERGENCY SERVICES	Replace burnt out streetlights.	Ensure 24/7 visibility for emergency response vehicles.	Village, City	On-going	Maintenance activities.	Annual inspections of streetlights.

IMPLEMENTATION PLAN

EMPHASIS AREA #6			STRATEGIC LINKAGE			
YOUNG DRIVERS			<p>► 50% of survey participants marked "lack of helmet use for ATVs and bicyclists" as a high safety priority.</p> <p>► Public comments suggesting need for improved driver education and enforcement for young drivers.</p>			
OBJECTIVES						
To improve and encourage safe young drivers.						
SUCCESS INDICATORS						
Implement a helmet program and responsible driving skills.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Driver's education and helmet education at school. Host community meetings.	Improve community awareness about the importance of helmets.	Village, City	On-going	Planning and scheduling of safety presentations and public meetings.	Plan future safety topics and community outreach.
ENFORCEMENT	Encourage parents to enforce helmet use for children riding bikes and ATVs.	Improved family enforcement of young driver safety.	Village, City	On-going	Community outreach.	Discuss additional enforcement strategies at Council meetings.
ENGINEERING	Widen roads.	Provide more space for bicycles to share the road with vehicles.	Village, City	2024	Planning, funding, design, and construction tasks.	Public involvement through planning process. Coordination with project contractor.
EMERGENCY SERVICES	Participate in State helmet program, including snow machine helmets.	Provide helmets to community members, especially young drivers, to protect them in the event of a transportation accident.	Village, City	2019	Application to Helmet program. Order, size, and distribute helmets.	Order more helmets for future young drivers and provide sizes for growing kids.

IMPLEMENTATION PLAN

EMPHASIS AREA #7			STRATEGIC LINKAGE			
ANIMAL CONTROL			<p>► Community complaints of stray dogs chasing ATVs and children.</p> <p>► Alaska Native children suffer among the highest rate of serious dog bites in the nation, and are hospitalized for dog bites at double the rate of U.S. children overall.</p> <p>► 19% of survey participants marked "wildlife danger for drivers or pedestrians" as a high safety priority.</p>			
OBJECTIVES						
Reduce the risk of vehicle accidents or attacks from both wildlife and stray dogs within the community.						
SUCCESS INDICATORS						
Reduced number of stray dogs around town and improved local emergency response resources to dog bites.						
4Es	ACTIONS	TARGET OUTPUT	RESPONSIBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Educate residents about city ordinance to chain up dogs.	Improve community awareness about the risks associated with stray dogs.	Village, City	On-going	Community outreach.	Evaluate additional educational strategies.
ENFORCEMENT	Enhance enforcement of city ordinance.	Identify and implement appropriate enforcement strategies for the existing stray dog ordinance.	Village, City, VPO	On-going	Community outreach.	Evaluate additional enforcement strategies.
ENGINEERING	Cut brush on roadways and intersections.	Improve visibility within the road corridor to reduce risk of collisions with nearby wildlife.	Village, City	2019, On-going	Completed brush cutting.	Annual inspections of road shoulders and brush cutting as needed.
EMERGENCY SERVICES	Provide local animal control services. Include animal bite treatment in first responder training courses.	Provide knowledgeable personnel to respond to dog bites.	Village, City, and Health Aides.	2019, On-going	Completed first responder training.	Investigate ways to implement animal patrol. Upgrade EMT training, as needed.

APPENDIX D: RESOLUTION

Ekwok Village Council
P.O. Box 70
Ekwok, Alaska 99580
(907) 464-3336
Fax: (907) 464-3378

Resolution No. 2019-006

**A Resolution adopting the
Ekwok 2019-2024 Tribal Transportation Safety Plan**

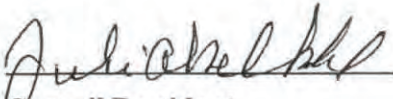
- WHEREAS:** the Native Village of Ekwok hereafter "Tribe" is a federally recognized tribe; and
- WHEREAS:** the Ekwok Village Council (EVC) is the governing body of the Tribe; and
- WHEREAS:** the Tribe recognizes the importance of improving transportation safety for its tribal members and all residents of Ekwok; and
- WHEREAS:** the Tribe has gained significant community input on identifying transportation safety concerns and priorities for Ekwok through a public survey administered in August through September of 2018 and a public meeting held on October 9, 2018; and
- WHEREAS:** the Tribe has identified and prioritized strategies to improve transportation safety throughout the community, and upon approval and adoption of the Ekwok 2019-2024 Tribal Transportation Safety Plan, the Tribe also approves implementing the priorities identified in the plan.

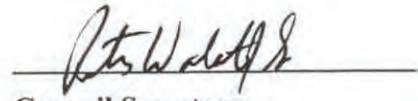
NOW THEREFORE BE IT RESOLVED, that the Tribe hereby adopts the Ekwok 2019-2024 Tribal Transportation Safety Plan.

CERTIFICATION

It is hereby certified that on the 12th day of March 2019, a quorum of the Ekwok Village Council was formed, and did pass and adopt the preceding resolution by 5 Affirmative, 0 negative, and 0 abstaining votes.

ATTESTED BY:


Council President


Council Secretary