

TWIN HILLS VILLAGE

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
ATAP	Alaska Transportation Alternatives Program
ATV	All-terrain vehicle
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
Community	Twin Hills, Alaska
Council	Twin Hills Village Council
DCCED	Department of Commerce, Community, and Economic Development
DHSS	Alaska Department of Health and Social Services
DOT&PF	Department of Transportation and Public Facilities
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
IGAP	Indian General Assistance Program
in.	Inches
ITS	Intelligent Transportation System
LRTP	Long Range Transportation Plan
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
THMP	Tribal Hazard Mitigation Plan
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
WRCC	Western Regional Climate Center

1.0 INTRODUCTION

On behalf of the Twin Hills Village Council (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 Twin Hills, 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 November 5, 2018. 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

Twin Hills is located near the mouth of the Twin Hills River, a tributary of the Togiak River, 386 miles southwest of Anchorage (Exhibit 1). Within the Bristol Bay Recording District and the Dillingham Census Area, the Community is located at approximately 59.0751 degrees north latitude and -160.2806 degrees west longitude within Section 3, Township 013S, Range 066W of the Seward Meridian (Department of Commerce, Community, and Economic Development [DCCED], 2018).

Exhibit 1: Community Location Map

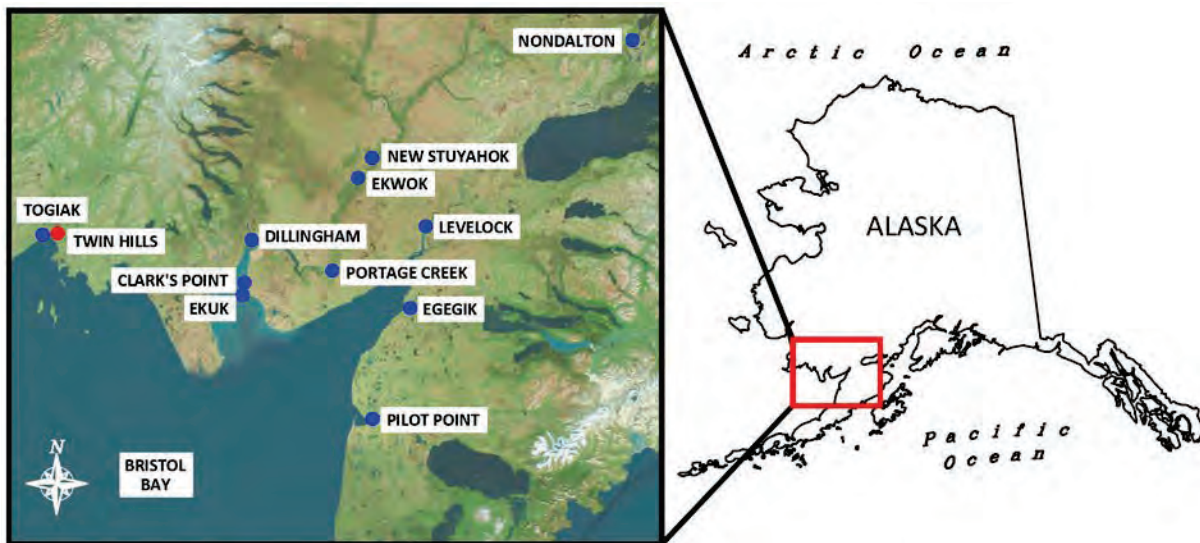


Image source: Bing Geomap, AutoCAD Civil 3D, 2018

1.3.2 History & Culture

The village was established in 1965 by families who moved from Togiak to avoid the recurrent flooding there. Some residents migrated from Quinhagak on Kuskokwim Bay. The people have strong cultural ties to the Yukon-Kuskokwim region because many of their ancestors migrated to Togiak following the 1918-19 influenza epidemic. School was first conducted in the church during 1967-68. A school building was constructed in 1972, but it burned in 1976. A new school was built in 1978. A post office was established around 1977, although there have been some interruptions of service (DCCED, 2018).

Today, the Community is home to approximately 86 people. Twin Hills is a traditional Yup'ik Alaska Native village with a fishing and subsistence lifestyle (DCCED, 2018).

1.3.3 Transportation & Access

Twin Hills is primarily accessible by air and water. Regular and charter flights are dispatched from Dillingham. There is a state-owned lighted gravel runway on a ridge east of the village. Most cargo is delivered by air. There is a boat landing area but no docking facilities; bulk goods must be lightered to shore. Cars, all-terrain vehicles (ATVs), and snow machines are used for local transportation. Residents drive along the beach to access the Togiak Fisheries cannery. A winter trail for snow machines connects Twin Hills with Togiak (DCCED, 2018).

1.3.4 Climate

Twin Hills falls within the transitional climate zone, characterized by tundra interspersed with boreal forests, and weather patterns of long, cold winters and shorter, warm summers. Fog and high winds are prevalent during winter months. The Togiak 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 Vice President typically acts as the “Safety Champion” for the Tribe, directing safety projects and managing safety resources. The Tribe also has a team of trained first responders, who are available to respond to emergencies such as car crashes. Another important component of the safety team is the maintenance crew. The Vice President works with the Tribal Administrator and President to oversee the team of first responders and the maintenance crew.

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:

- Twin Hills Village
 - 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. Additionally, the Tribe has a team of first responders to assist with transportation emergencies.
- Twin Hills Native Corporation
 - The local Native Corporation owns the gravel source within the community and coordinates with the Tribe to provide material to maintain the roads.
- Julius Pleasant Health Center
 - The local clinic provides emergency response and medical services for transportation accidents.
- State Troopers, Togiak Post
 - There is no police presence stationed in Twin Hills. However, the Togiak State Trooper occasionally visits Twin Hills to communicate their availability, contact information, and resources.

- Southwest Region School District
 - The local school provides shelter for the community, if needed, for natural hazards or emergencies.
- Traditional Village of Togiak & City of Togiak
 - Togiak is a larger community located on Togiak Bay just 4.5 miles from Twin Hills, and Twin Hills often coordinates with their neighbor for safety and emergency response resources, as 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. There is one BBAHC health aide located in the community to respond to emergencies, who is in the process of receiving all required training.
- 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

The Council has implemented several safety efforts in the past, and manages several on-going safety efforts. In general, since Twin Hills is a small community, the Council is able to communicate good safety practices to the community via word of mouth. The Council continually encourages people to wear life vests while boating, wear helmets on bikes or ATVs, and keep their dogs tied up to reduce the risk of being hit or biting pedestrians. Other

safety efforts implemented by the Council are described below including road maintenance, first responder training, and infrastructure improvement projects.

2.3.1 Maintenance

The Council has a maintenance crew and equipment to improve conditions of the transportation system on an as-needed basis. The crew consists of three (3) primary operators, with backup operators to fill in as needed. Existing equipment consists of a grader, loader, tractor, and an ATV with an attachable blade. According to the Council, the maintenance crew is very consistent and reliable.

The maintenance crew is responsible for re-grading the gravel roads and boat launch facility, as needed, to remove potholes and maintain proper surface flow drainage. The soil conditions and freeze-thaw cycle within the community cause the roads to become soft and sink over time. The maintenance crew occasionally needs to place new gravel material to mitigate this issue. The crew also clears brush away from the road shoulders every year to improve visibility, especially at intersections. Winter maintenance involves snow plowing on all roads after a significant snowfall event. Additionally, the crew will use heavy equipment to roughen ice and reduce the risk of sliding on roads with a steep grade (e.g. the switchback road to the airport). Drainage is typically not an issue, but the crew clears out clogged culverts and replaces damaged culverts, as needed.

2.3.2 First Responder Training

The Council has a team of twelve (12) first responders, who recently underwent training. These trained personnel are valuable for providing rapid response to car crashes, boating incidents, medical emergencies, and search and rescue operations. The first responders work with the local clinic to improve the patient quality of care during emergencies.

2.3.3 Infrastructure Improvement Projects

The Council funds and implements infrastructure improvement projects whenever issues arise. In the past, for example, the community has complained about the steep angle of the boat landing at the river. The Council recently coordinated to reduce the grade, which helped improved access and safety for people backing their boats into the water with a trailer. Additionally, the Council had thirteen (13) new streetlights installed around the community in September 2018. The lights help improve road safety by improving visibility and navigability for drivers and pedestrians at night and in the winter.

2.3.4 Past Safety Programs

Around 2014-2015, Bristol Bay Area Health Corporation initiated a safety program within Twin Hills, which involved passing out helmets and life jackets to individuals that needed them and installing a station near the boat launch to provide extra life vests and lifebuoys. They also hosted a class about boating safety for the community.

2.4 PLANNING DOCUMENTS

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

- 2018-2023 Twin Hills Village Long-Range Transportation Plan (LRTP)
- 2005 Twin Hills Comprehensive Plan (in the process of being updated in 2019)
- 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 call either the clinic or the State Troopers in Togiak. There are twelve trained first responders located in Twin Hills to provide medical services, if needed. Additionally, the Community has some fire suppression supplies including a fire hose and a couple of water loading trailers, but the Twin Hills Volunteer Fire Department is currently inactive.

The clinic, Troopers, and other emergency contacts are listed in Table 2. 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 / Emergencies State Troopers, Togiak 907-793-2159	Car Crash / Emergencies State Troopers, Dillingham 907-842-5641
Medical Response Julius Pleasant Health Center 907-525-4321	Regional Hospital Kanakanak Hospital (Dillingham) 907-842-5201
Fire Twin Hills Volunteer Fire Department (Inactive) 907-525-4821	Natural Disaster & Search and Rescue State Emergency Operations Center 1-800-478-2337 (toll free) 907-428-7100 (local Anchorage area)
	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.

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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.

Due to the rural conditions of Twin Hills, crash data is limited. Available crash data obtained for this plan includes one reported crash from the Alaska Department of Transportation and Public Facilities (DOT&PF), data from a community survey, and boating accidents from the U.S. Coast Guard. This section summarizes and evaluates this data.

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 one reported crash that occurred in Twin Hills between the years 2013 and 2018, reported by the Alaska State Troopers. The data for the crash is provided in Table 3.

The crash occurred late on a Sunday night/Monday morning around 12:00 AM in April 2014. It involved a 27-year old male driving a pickup truck with one other occupant. The driver had reportedly been drinking and was not wearing a seatbelt. Traveling northbound on Airport Road, he made an improper left turn, causing the truck to overturn and roll off the roadway. Both occupants sustained minor injuries, and the truck sustained minor damage. According to the report, the road surface was wet, and there were no streetlights in the area. The driver received no charges.

With only one crash to analyze, it is difficult to draw conclusions from the data. However, it is important to note that Airport Road where the crash took place is the steepest road within the community. It is a sharp incline up a hill with a switchback turn at the bottom intersecting with Aurora Street. The side embankment is steep, but there are no guardrails. Additionally, the Council explained that this roadway gets very icy in the winter. Based on these factors, this road may be a safety priority for the community.

Another piece of data to consider from the crash is the driver's suspected alcohol use, which could indicate the need to emphasize the dangers of drunk driving to the community. Additionally, the crash occurred at night on an unlit roadway, possibly suggesting the need for more community streetlights to improve nighttime visibility.

Table 3: 2013-2018 Twin Hills Crash Data Summary

Date / Time	4/14/2014 12:00:00 AM
Day of the Week	Monday
Street	AIRPORT ROAD
Intersecting Street	AURORA STREET
At Intersection	No
Number of Motorized Units	1
Crash Severity	Suspected Minor Injury
Number of Serious Injuries with Fatalities	0
Number of Serious Injuries	0
Number of Minor Injuries	2
Number of Fatalities	0
Weather	Unknown
Environmental Conditions 1	Weather Conditions
Road Surface	Wet
Lighting	Dark-Not Lighted
Alcohol Suspected	Yes
Drugs Suspected	No
CU Number of Occupants	2
CU Driver Injury	Suspected Minor Injury
CU Driver Restraint System 1	No Restraint System Used
CU Driver Raw Age	27 years
CU Driver Gender	Male
CU Driver Alcohol Suspected	Yes
CU Driver Alcohol Test Type	Test Not Given
CU Driver Drugs Suspected	No
CU Driver Drugs Test Type	Test Not Given
CU Road Conditions	Road Surface Condition (wet/icy/snow/slush/etc.)
CU Driver Contributing Circumstance 1	Improper Turn
CU Direction of Travel	Northbound
CU Action	Turning Left
CU 1st Event	Overturn/Rollover
CU Driver Charges	No Charges
CU Body Type	Pickup
CU Extent of Damage	Minor Damage
Pavement	Unpaved

3.2 COMMUNITY SURVEY

A public survey was conducted within the Community from October through November 2018. Raw survey results are provided in Appendix B.

A total of 19 surveys were submitted to Bristol, which equates to approximately 20 percent of the Community's population. 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 list of priorities and the results are shown in Exhibit 2, which are sorted from highest priority to lowest priority.

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 the survey results, "lack of streetlights" is the Community's highest safety priority with 63% of survey respondents marking it as a high priority. "Lack of life vest use for boaters" was ranked next highest at 58%, followed by "dusty roads," "lack of evacuation routes / safety shelters," and "poor road conditions / lack of maintenance" at 53%.

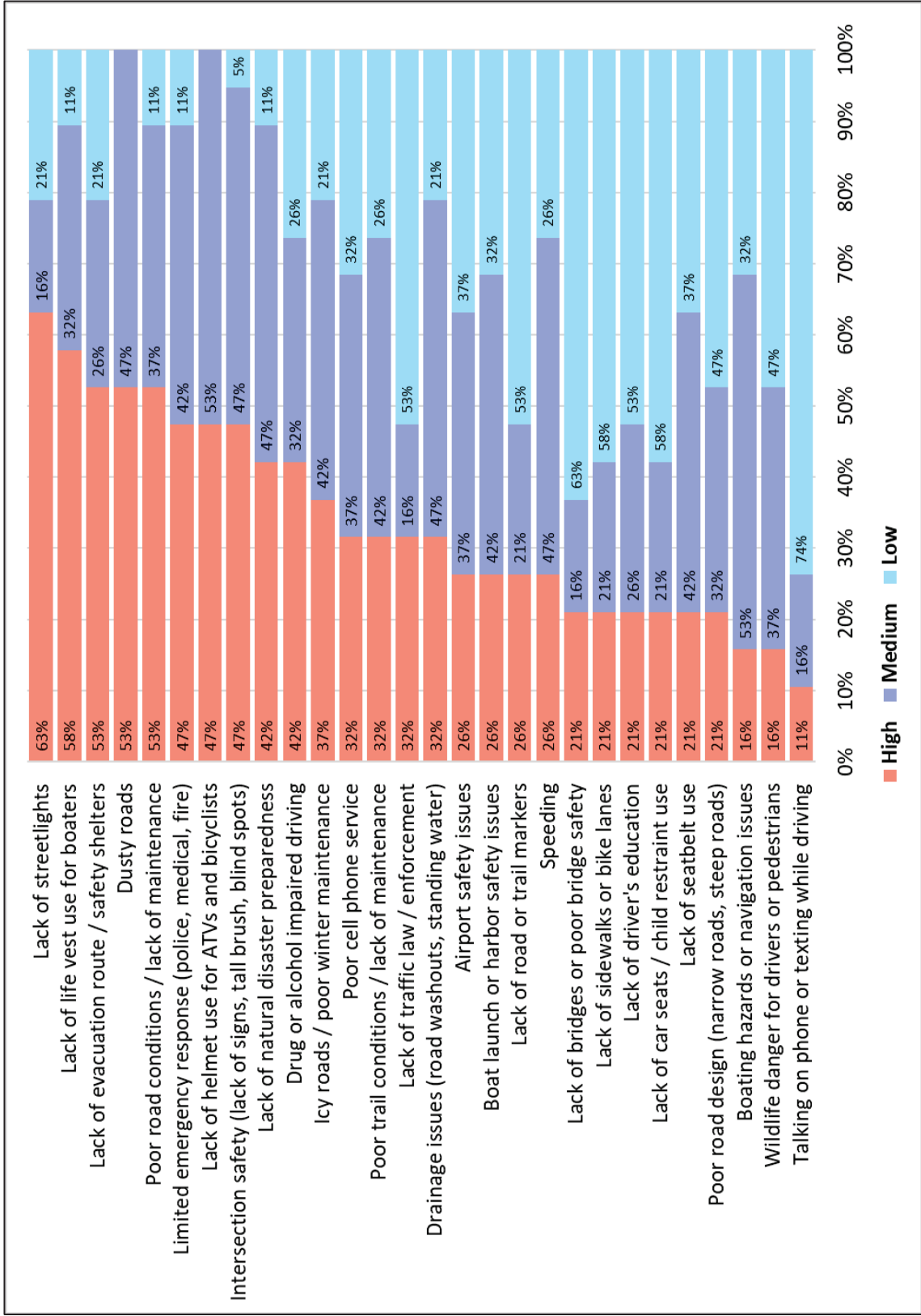
3.2.2 Question #2: Survey Respondent Age

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? _____

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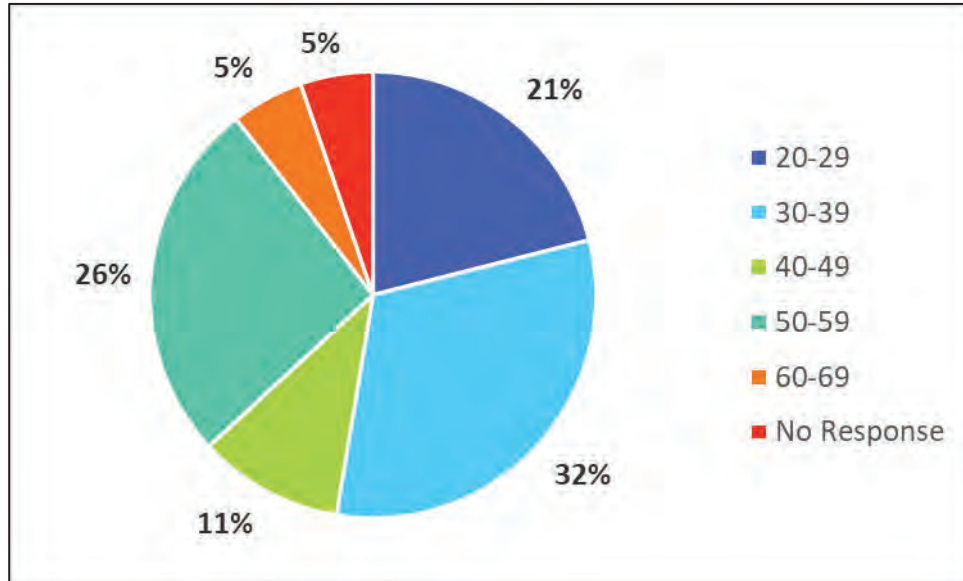
Exhibit 2: Community Safety Priorities



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

Exhibit 3: Survey Respondent Ages



A good distribution of ages participated in the survey. All survey respondents were adults between the ages 24 and 68. One survey respondent was under the age of 25, and can be considered a young driver. No senior drivers over the age of 70 participated in the survey. One survey respondent left the question blank.

3.2.3 Question #3: Transportation Modes

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

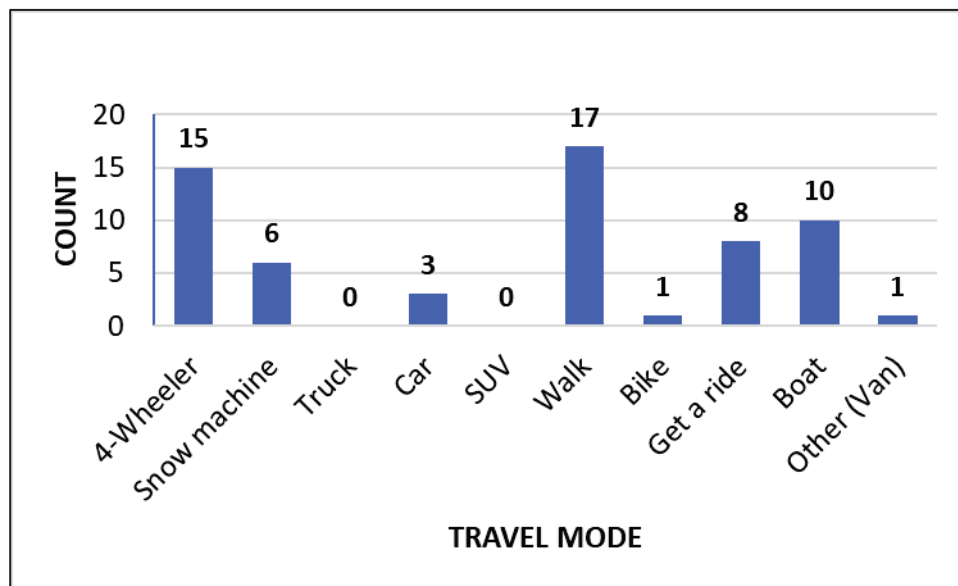
3. How do you get around within the community? Please circle (you may circle more than one):

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

Exhibit 4 shows the results of Question #3. Since the option was given to select more than one answer, Exhibit 4 shows number of respondents that circled each mode of travel at least once. One person left Question #3 blank. Out of the 18 answers, 94% said they walk, 83% said they use a 4-wheeler, and 56% boat, making these the three most common modes of transportation in the Community. Additionally, the results show that 94% of survey

respondents use two or more travel modes, 61% three or more, 50% four or more, and 28% five or more. This indicates that the community is multi-modal. Most people drive a 4-wheeler in combination with walking. Few people drive automobiles such as trucks, SUVs and passenger cars. In addition, only one survey respondent indicated using a bike to get around the community. Many people also marked “get a ride” on Question #3. Approximately 63% of people that marked “get a ride” were below the age of 30, indicating that younger drivers may ride-share more than others do.

Exhibit 4: Types of Transportation Modes



3.2.4 Question #4: Anecdotal Crash Data

Question #4 of the survey helped gather data about recent transportation related accidents within the Community. Most people left the question blank. Three people described an incident in detail, and one person wrote “4-wheeler accidents” but did not elaborate. Based on the descriptions of the three different responses, they seemed to be describing the same incident. This incident also seems to be different from the crash that was reported in 2014. Details of the crash described in survey Question #4 are provided in Table 4. Since information was provided by three different people, details varied slightly for year of the accident and the types of vehicles involved.

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**

Table 4: Anecdotal Crash Summary

Month	August
Year	2016 or 2017
What happened	Ran off road and crashed
Cause	Poor judgement, impaired driving
Location	Beach Road
Driver Age	50-60
Vehicle Types	Suzuki or side-by-side, and van or light truck
Injuries	None/minor ("sore head")
Property damage	Broken windshield on Suzuki, damage to van
Pedestrian involvement	No
Alcohol Use	Yes
Police on scene	No
Ambulance on scene	No

According to the survey responses, the crash occurred in August in either 2016 or 2017. The crash involved a driver between the age of 50 and 60, who ran off the road reportedly due to alcohol use. Two vehicles were involved in the crash, the first described as a "Suzuki" or "side-by-side" and the second described as a "van" or a "light truck." According to the

survey, the van sustained body damage and the Suzuki had a broken windshield. No emergency response arrived on scene.

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?

Out of the 19 surveys received, eight people gave a response for Question #5. Community suggested safety measures are summarized below:

- Maintain the road and brush on the sides. Many times you'll come across someone on the opposite side of the road, just trying to avoid potholes.
- Cut down brush and maintain roads.
- The community of Twin Hills can use some streetlights and new trail markers. Trails used to be marked but have been damaged by weather and/or people over the years.
- We need safety classes, have community awareness.
- Road maintenance.
- Educating new drivers on transportation safety.
- Slow down, public knowledge
- Underage driving.

3.3 BOATING ACCIDENTS

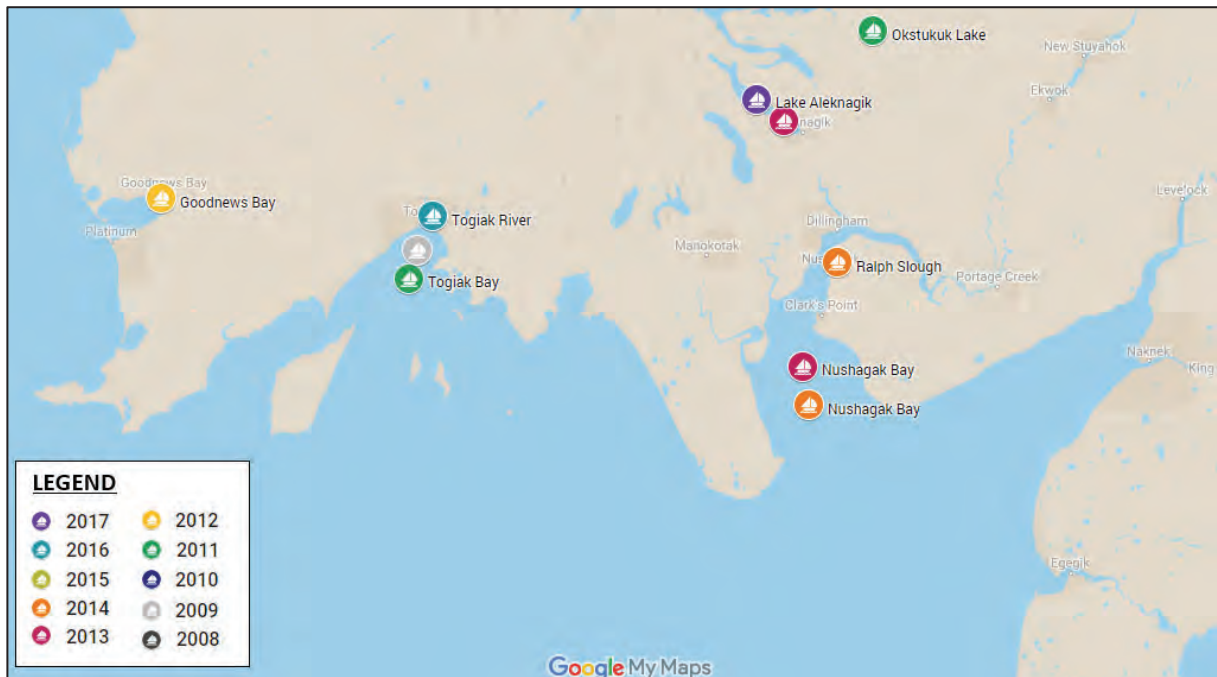
The U.S. Coast Guard Boating Safety Resource Center online database was consulted for boating accidents in Alaska within the last 10 years. The search results indicate three boating accidents occurred in Togiak Bay or Togiak River, within 20 miles of Twin Hills.

The accidents are listed by the body of water where they occurred, but the exact locations are not described. All of the accidents resulted in deaths, totaling five deaths since 2009. These accidents are summarized in Table 5 and displayed in Exhibit 5. It is important to note that this data only includes boating accidents that were reported to the U.S. Coast Guard. There may have been additional accidents that were not reported, such as accidents that resulted in only minor injuries or vessel damage (U.S. Coast Guard, 2018).

Table 5: Summary of Boating Accidents near Twin Hills

Year	2016	2011	2009
Month	January	August	July
Time of Day	10:40 PM	7:00 AM	12:00 PM
Body of Water	Togiak River	Togiak Bay	Togiak Bay
No. of Accidents	1	1	1
No. of Vessels	1	1	1
No. of Injuries	0	0	0
No. of Deaths	3	1	1
Accident Type	Capsizing	Flooding/Swamping	Flooding/Swamping
Accident Cause	Hazardous Waters	Alcohol Use	Unknown
Vessel Type	Open Motorboat	Open Motorboat	Open Motorboat

Exhibit 5: Bristol Bay Boating Accident Map



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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 4E approach (engineering, enforcement, education, and emergency services), as appropriate.

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

1. Road Conditions
2. ATV Trails
3. Boating
4. Pedestrians
5. Young Drivers

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 ROAD CONDITIONS

4.1.1 Background

There are many persistent issues with road condition in Twin Hills including poor surface materials, potholes, poor drainage, narrow lanes, brush, and dust. Like many rural villages in Alaska, every road within Twin Hills consist of a gravel surface course. According to residents, the road surface has worn down over time, exposing larger rocks from the subbase materials. Although there is a gravel pit within the community, there is no way to filter the rock to create the finer aggregate that is desired as surface course. Potholes occur every year in the same, higher traffic areas. There are few drainage features along the roads, often resulting in standing water in the spring. Council members reported that kids play in the water, which can be a health and safety hazard. Additionally, the existing roads are narrow, between 9 and 20 feet wide, limiting passing space. Wild brush is beginning to encroach into the traveled way in some areas.

Another safety concern often associated with gravel roads is dust emissions. 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. No dust suppression methods are currently being implemented in Twin Hills.

Road dust is often associated with speeding because excessive speeds can increase dust emissions on gravel roads. The community indicated that some speeding does occur, mostly being a concern around the school zone. Although there is an existing speed limit sign by the school, it is not located in a visible location and is often ignored. According to the public survey, both "dusty roads" and "poor road conditions / lack of maintenance" were ranked within the top five community priorities.

4.1.2 Objectives

Improve road conditions and driver safety through rehabilitation projects, enhanced road maintenance, and better speeding enforcement.

4.1.3 Strategies

Education

- Use posters and/or signs at the school to educate community members about the rules of the road such as right-of-way in the intersection

Enforcement

- Use word of mouth to enforce speed limits
- Install bigger, more visible caution signs and school zone signs near the school, or on other high priority roads, use highly reflective materials

Engineering

- Widen and build up roads to improve driving surface and drainage
- Investigate dust suppression methods and costs
- Procure maintenance equipment such as a sieve for the gravel pit, a chainsaw for brush cutting, and dust control materials

Emergency Services

- Continue regular brush clearing to improve visibility around corners, and regular road grading to remove potholes, create a maintenance priority list
- Continue snow/ice removal as needed, prioritizing Beach Road

4.2 ATV TRAILS

4.2.1 Background

Subsistence is the way of life in Twin Hills. People rely on ATV and winter trails to access surrounding berry picking areas and hunting grounds, and to access nearby communities including Togiak, Manokotak, and Dillingham. Rough-cut ATV tracks are used in the summer and fall, while ice trails are used in the winter. There are many potential hazards associated with trail transportation. According to locals, the winter trails are rough and bumpy. Council members described cases of ATVs flipping on the trails. Approximately 32% of survey participants marked “poor trail conditions / lack of maintenance” as a high safety priority. Another significant concern is thin ice over water crossings along winter trails. With warmer winters, there tends to be more areas of open water, creating more risks of people falling in or getting stuck. In addition, many of the trails are unmarked or the trail markers have fallen down. The Council estimated at least one search and rescue mission is required every year to look for people who have strayed from the designated path and become lost. Young people are especially at risk because they have less experience navigating the trail system. Although there are 4-5 trailed search and rescue personnel within the community, the team is lacking communication equipment and designated vehicles. “Limited emergency response (police, medical, fire)” was marked a high priority by 47% of survey respondents.

4.2.2 Objectives

Improve safety and accessibility of trail transportation.

4.2.3 Strategies

Education

- Install permanent signs near lakes or creek crossings where thin ice is common, continue word of mouth warnings about areas of thin ice
- Update posted safety contact information as needed
- Create trail maps to improve local knowledge of trail system

Enforcement

- For people caught speeding or breaking other traffic rules, require them to partake in community service (such as helping install new trail markers)

Engineering

- Upgrade trails; investigate construction methods such as new gravel surface or zero-impact geo-trail mats

Emergency Services

- Install trail markers on primary subsistence trails to improve navigation in winter
- Improve search and rescue operations
 - Purchase communication devices for traveling on trails
 - Purchase search and rescue vehicles including ATV, snowmobiles, and skiff
 - Continue to train search and rescue volunteers

4.3 BOATING

4.3.1 Background

Like trail transportation, the community relies on water transportation for subsistence including fishing, crabbing, clamming, and more. Locals and transient fishermen boat within Togiak Bay, Bristol Bay, and along the Togiak and Twin Hills Rivers to reach various lakes. Residents also boat back and forth to Togiak frequently. Almost half of survey participants said they boat to get around the community; demonstrating boating is the third most common mode of local transportation. According to U.S. Coast Guard crash data in Alaska, three open motorboat accidents have occurred within 20 miles of Twin Hills in the last 10 years. One accident occurred in January 2016 on the Togiak River; the boat capsized due to hazardous waters, resulting in the death of three people. Two flooding/swamping accidents occurred in Togiak Bay, one in 2011 and 2009, both resulting in one fatality. Alcohol use was reported for one of the incidents. These accidents may or may not have involved Twin Hills residents.

There are several boating safety issues that the Council would like to address through this plan. The first is life vest use. The public survey shows that “lack of life vest use for boaters” was given a high priority by 58% of participants, making it the second highest community safety priority. Although there is an existing Kids Don’t Float loaner board located at the beach, people do not always return the vests. Another boating concern is erosion. The Togiak River, Twin Hills River, and other navigable tributaries experience erosion every spring, which causes sediment deposits and creates sand bars in the river that may not have been there the previous year. Residents expressed concern about boats getting stuck in unexpected shallow waters. Finally, the existing boat launch in Twin Hills consists of a sloped sand beach into the river. Launching directly off the beach can be challenging depending on the tide and weather. The community desires a permanent boat launch facility to improve safety and efficiency of launching operations.

4.3.2 Objectives

Reduce the risk of boating accidents and fatalities in and around Twin Hills.

4.3.3 Strategies

Education

- Improve existing Kids Don't Float loaner board
 - Make a sign that says "please return after use"
 - Post other life vest information on the board
 - Label all vests with "THVC" to show they are Council property
- Host a class at the school during spring break about boating safety

Enforcement

- Post State of Alaska life vest laws in a visible public location

Engineering

- Construct a boat harbor and barge landing bulkhead with a crane to improve safety and efficiency of launching and loading operations

Emergency Services

- Continue to restock the Kids Don't Float loaner board with new life vests, as needed
- Place a barrel with oar-shaped sticks for people to borrow if they do not have oars

4.4 PEDESTRIANS

4.4.1 Background

According to the public survey, walking is the most common mode of travel in Twin Hills. Homes are within walking distance of most community facilities. All ages of people walk to get around, from young children to elders. Because of this, pedestrian safety was selected as an emphasis area for the plan. There are two primary concerns regarding pedestrian safety in the community. The first is visibility of pedestrians, and the second is stray dogs. Twin Hills experiences extended hours of darkness in the winter, reducing visibility of pedestrians on the road system. Although there are some existing streetlights, 63% of survey respondents said "lack of streetlights" is a high priority, making it the community's top safety priority. The roads in Twin Hills are narrow and surrounded by brush, which reduces driver visibility of pedestrians as well.

Stray dogs are another safety concern for pedestrians. Many pet owners do not restrain their pets, letting them run around the village, chasing children and ATVs. The school complains to the Council regularly about close encounters between dogs and students. A veterinarian travels to the community once per year to provide vaccinations. Although there have been no reported dog bites in Twin Hills, the community is worried about the risks. The stray dog issue is not unique to Twin Hills. 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).

4.4.2 Objectives

Improve visibility and safety of pedestrians.

4.4.3 Strategies

Education

- Hang “Bike-n-Walk Safely Alaska” posters around community to encourage people to wear reflectors in the dark
- Continue to educate kids about staying safe around stray dogs

Enforcement

- Continue word of mouth warnings to enforce the speed limit

Engineering

- Maintain existing streetlights, replace burnt out lights as needed
- Widen roads for more walking space

Emergency Services

- Participate in the “Bike-n-Walk Safely Alaska” program to obtain reflectors for all kids within the community
- Continue providing vaccination services for pets

4.5 YOUNG DRIVERS

4.5.1 Background

In rural Alaska, it is not uncommon for young children to drive ATVs. In Twin Hills, many kids start driving ATVs at age 10 to assist their elders with various tasks. However,

incidences of poor behavior such as intoxicated driving or speeding often involve young drivers. According to DOT&PF crash data, one reported crash involved a 27-year old drinking and driving late at night. There is no local driver's education program; parents are responsible to teach their children the rules of the road. At least three people recommended driver's education on the survey as a way to improve transportation safety within the community.

Council members described an incident that occurred summer of 2017, involving kids sneaking out, unauthorized by their parents, taking ATVs out on the trails, and ended up crashing across the river. There is an existing age limit ordinance, but the law is not posted or enforced. Without police presence in the community, it is difficult to enforce good driving behavior. In addition, kids rarely wear helmets while on bikes or ATVs. Almost half of survey participants marked "lack of helmet use for ATVs and bicyclists" as a high safety priority.

4.5.2 Objectives

Improve ATV driving behavior and driver's education for young drivers.

4.5.3 Strategies

Education

- Continue to educate the community about the dangers of drinking and driving
- Host an ATV driver education course at the school for high school aged kids

Enforcement

- Continue word of mouth enforcement of drinking and driving
- Encourage kids to walk instead of drive

Engineering

- Install permanent "Slow, Children at Play" signs in high priority locations

Emergency Services

- Participate in the Alaska Helmet program to obtain helmets for all kids under 16 years old
- Consider implementing a helmet ordinance

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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. Documentation of reviews and updates will be attached in Appendix E once per year.

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 4E'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.

- BBNA Tribal Transportation Program Consortium
 - The Tribe is part of the BBNA Tribal Transportation Program Consortium (Consortium). As a result, most tribal transportation projects in Twin Hills will be funded with tribal shares from the Tribal Transportation Program

(TTP) funds through the Consortium. On average between fiscal year (FY) 2016 and 2020, the Tribe's annual tribal shares are approximately \$73,528.

- 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 (AHSO) 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 Transportation Alternatives Program (ATAP)
 - The ATAP provides funding for programs and projects defined as transportation alternatives meeting eligibility requirements. There are over \$2.6 Million in funds available for rural communities within the State for Fiscal Year 2018. Availability of funding in future years is to be determined.
 - More information can be found at:
<http://dot.alaska.gov/stwdplng/atap/index.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 (RTAP), American Recovery and Reinvestment Act of 2009 (ARRA) 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 the Bureau of Indian Affairs (BIA) DOT 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

6.0 REFERENCES

- Anchorage Daily News, 2015. “Troubling conditions for Bush Alaska dogs prompt call for solutions.” Published October 18, 2015. Updated September 28, 2016. Accessed December 2018. Website: <https://www.adn.com/rural-alaska/article/mistreated-dogs-and-hungry-strays-bush-alaska-get-help-and-out-villages/2015/10/19/>
- Department of Commerce, Community, and Economic Development (DCCED), 2018. State of Alaska. Community Database Online: Twin Hills. Website: <https://www.commerce.alaska.gov/dcra/dcraexternal/community/>
- Department of Transportation & Public Facilities (DOT&PF), 2018. “Twin Hills Crash Report 2013-2018.” Date of Report Run: 9/5/2018.
- Federal Highway Administration (FHWA), 2012. “Developing Safety Plans: A Manual for Local Rural Road Owners.” Published March 2012.
- State of Alaska Military and Veteran Affairs, 2013. Division of Homeland Security and Emergency Management. “Alaska Emergency Response Guide for Small Communities.” Published March 2013.
- U.S. Coast Guard, 2018. Boating Safety Resource Center. Search data by “body of water,” “Alaska,” Years 2008-2017. Accessed December 2018. Website: <https://bard.knightpoint.systems/PublicInterface/>
- Western Regional Climate Center (WRCC), 2018. Alaska Climate Summaries for Dillingham FAA Airport, Alaska Station 502457 for Period of Record 12/2/1951 to 12/31/2005. Website: <https://wrcc.dri.edu/summary/climsmak.html>

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APPENDIX A: PUBLIC INVOLVEMENT

TRIP REPORT & MEETING MINUTES

Project: **BBNA THMP & TTSP Project**

Bristol Project No: 32190013

Reference: Twin Hills Planning Team Meetings & Public Meetings

Date of Meeting: November 5-6, 2018

Location of Meeting: Twin Hills Tribal Building & School

Participants:

Bristol: Danielle Dance, Jackie Wander

Planning Team: See attached sign in sheet

Public Meeting: See attached sign in sheet

Summary

Jackie and Danielle arrived in Twin Hills around 12:00 PM on Monday, November 5, 2018. From 1:00 PM to 3:30 PM, they met with the Council/Planning Team in the Village Council Building (Blue Building) to discuss the project. They discussed the items for the Tribal Hazard Mitigation Plan (THMP) including community assets, vulnerability statements, mitigation goals, and potential mitigation strategies. From 4:00 PM to 5:15 PM, Jackie and Danielle hosted a public meeting in the school to discuss both projects and collect public comment. They stayed overnight in the school. Then the next morning at 9:00 AM, they met with planning team again to discuss the Tribal Transportation Safety Plan (TTSP).

THMP Planning Team Meeting Notes

Worksheet #3 – Risk Analysis

- School Fuel Farm
 - One operator
 - Winter weather / cold can affect barge deliveries
- Clinic
 - The community has one health aide on the job, who is currently undergoing training
- Subsistence areas
 - Subsidence causes mud/sink holes in tundra
- Church
 - Highest occupancy during Christmas
 - No water at the church, not impacted by extreme cold
- Cemetery
 - During cold weather (freeze thaw), the crosses protrude up from the ground
- Village Office
 - Constantly people coming in and out
 - Erosion occurring, can notice gravel used to be higher

- Boat Launch / Boat Launch
 - Some fuel leaking from boats, had to excavate oil from gravel and dispose, caused from boats filling up with rainwater
 - Had 2-3 boats capsize due to wind
 - When there was a high flood, a boat was carried away and got deposited in “stinky pond”
 - If people leave their boats out, sometimes they will end up on the land
- Electric Utilities
 - Just got new streetlights, will be connected to Togiak in a few years
 - Power poles are starting to lean due to subsidence or wind
- Water Utilities
 - Well was running dry, but it is working great lately
 - Have two new wells that they still need to connect to, are close to each other, they are groundwater influenced by surface water (GUIDI)
- Fuel Storage
 - Gas, heating fuel, and propane storage are along the road to the boat launch, heating fuel is up higher
- River
 - More beavers due to less hunters/trappers, building dams and causing rivers/streams to change
- Post Office
 - Used to be the community hall
- GCI Tower
 - Next to the post office
 - Flooding can occur in stinky pond and flood from the back side
- Old Landfill
 - Is closed with gravel and covered, could potentially be impacted by flooding

Worksheets #4-#5

- School has a backup generator but only supports the school, but they are switching to AVEC and should have a backup generator in a few years
- Some people in Togiak evacuate to Twin Hills, but most go up to higher ground on the Togiak side of the river
- The school got new fire extinguishers and gave their old ones to the Village Council

Worksheet #6

- Earthquakes
 - Target elders and kids (vulnerable people)
 - Create an emergency route
 - 17 qualified members to assist with evacuation, first responders, fire chief, former national guard, John Sharp for trooper alert, etc.
 - Need a plan to shut off water, generator, and fuel tanks off if they are damaged
 - The school is unstable, you can hear the building squeaking during high winds
 - Groundwater wells do not seem to get impacted

- Erosion
 - Erosion monitoring, IGAP place stakes
 - Old village site/cannery bluff areas is being eroded, are finding remnants of old cultural areas (skulls, etc.)
- Extreme Cold
 - Water lines have heat tape, and have circulating pumps at WTP and heat exchanger
 - Homes are outdated, need new windows, doors, and better insulation in walls and floors
 - Share to public by newsletter
- Flooding
 - All low areas near the river are susceptible to flooding
 - Check on boats whenever there is a strong south wind
 - Getting insurance on boats
 - Road towards new landfill gets washed out from flooding, culverts are heaving from subsidence and freeze/thaw, need a better solution because they have replaced the culverts several times in the past, heat tape in the culvert?
 - Worried about the banks on river with all the rain they've been having
 - The bushes have been growing, protecting the bank
 - Some people have fish tents close to the river
 - Boat harbor
- Severe Winds
 - Generator building has lost the entire roof
 - Have had to repair countless roofs in the past
 - 2019 looking at putting poles across to Togiak, backup generator closer to Togiak
 - Water system does have a backup generator, but clinic does not, need a portable generator for the clinic
 - Having a windmill for backup power, did a study on the wind and determined it was not sufficient, but may be in the future with climate change
 - When they were resurfacing the airport, they asked for a crosswind runway
- Severe Winter Weather
 - Continue to snow plow, rely on the operators to maintain, training, etc.
 - When it is extremely cold, it affects the water supply and causes freezing
 - When there is less snow, the ground freezes better
 - Satellite phone and bag?
- Subsidence
 - Community awareness, tell them where to avoid sinkholes
 - Tell the community if there are sinking roads
 - Build up roads, they used to be 2 feet high, takes a long time for the gravel to settle (up to 6 years), some houses and buildings are slowly settling
- Tsunami
 - Warnings, watch the water levels, evacuate to school, and identify a route to higher
 - Prepare for Togiak evacuation, lodging, supplies, information distribution
- Volcano
 - Education/awareness

- Clinic is well stocked and prepared to assist people with asthma, have masks
 - Equipment protection/maintenance, clean, replace filters, cover with tarp, etc.
- Wildfire
 - Masks, warnings to keep people inside
 - Need update fire hydrants and hoses, have a Code Red trailer filled with water, has a hose and pump, last used when Bobby's steam house was on fire
 - Fire department has been inactive, had a couple people trying to reestablish it
 - The IGAP publicizes air quality/data system and where the fires are, etc., also educating the community on dust control, monitoring about thunderstorms

TTSP Planning Team Meeting Notes

- Road Conditions
 - Need finer gravel, top off the road with good gravel, concerned about large rocks popping up, potholes occur in same places every time due to high traffic areas
 - Access to gravel? BBNC
 - They try to cut the brush, especially going up to the airport
 - Need to buy an industrial chainsaw, regular one keeps breaking
 - One person did not even watch where he was going and ran right into another honda
 - Speeding around school zone, want a bigger sign and highly reflective, nobody can see the sign – before school starts next year
 - Have a grader and dozer for snow removal, now with new dumpsite will probably use front end loader to clear snow at gravel pit
 - Sometimes roads get standing water in spring, kids have a tendency to swim in water
 - Word of mouth communication to tell kids to slow down
 - Investigate use of calcium chloride and costs?? Ask office
- Trail Safety
 - Only complaint is they are rough and bumpy, interested in redoing the trails with mats, or new gravel
 - Only trail markers are from here to Dillingham, and some to Togiak
 - Trail markers fall down often, need someone to maintain, vandalism
 - Have about 4-5 search and rescue people, need walkie talkies and supplies, presently they supply all the gas for the search and rescue
 - Have to search once per season or at least one per year
 - Need vehicles
 - Some people flip, if they need help they will call their friends
 - There was a contact sheet spread around for who to call, need to update this every other year at least
 - Some people use GPS on search and rescue missions
 - Young people do not know dangers of the trails
 - Snow machine / winter safety, tell people not to cross certain creeks or lakes, need more education and community awareness
 - Maps about winter trail hazards, there are some hot springs/warm areas
- Boating Safety
 - Do hand out vests, and have a supply at the school

- Put a sign on loaner board to “please return after use” or mark on life vests “THVC”
- Talk with the principle about doing classes at the school, boat safety
- Most people have an oar, people steal the oars, they bring the proper gear but it can be an issue of space in the boat
- Put a barrel by the beach with sticks to use as potential oars
- Need a boat harbor or barge landing, like the bulkhead in Togiak, with a cane to offload the materials instead of using a front end loader, work with Cannery but they have their own barge landing
- The sand bars change every year, so buoys would be ineffective, people just need to use their own judgement
- Pedestrian Safety
 - The school kids are the main concern with dogs, school will call to complain, it is up to the owners, they constantly deal with this issue every council meeting
 - There have been many close calls of dogs almost attacking small children, but there has never been an attack, they have upped the bounty from \$10 to \$20 per head, tell kids not to pet or play with stray dogs, have to kill them
 - There is a lady/vet to come in every year to give a shot, they advertise this
 - Could improve roads while updating water/sewer (working on that project now, in ROW process)
 - Working on the Togiak intertie right now too
- Young Drivers
 - Community effort to take keys away from people drinking, have had problems in the past but some people don’t drink anymore
 - Kids start driving around 10 years old, especially to help their elders, but they discourage it,
 - Last summer, some kids crashed ATV across the river and crashed, need to keep keys away from kids
 - Kids would take the
 - Post up the existing ordinance about age limits, implement a new ordinance
 - Need to encourage kids to walk instead of drive

THMP Public Meeting Notes

- Facebook is a good way to communicate to the community, also newsletters and flyers

TTSP Public Meeting Notes

- Widening the roads because the vegetation is encroaching
 - Widening for more passing space
 - Clearing brush
- People nodded agreement on the recommended emphasis areas/strategies

Attachments:

1. Planning Team Meeting Sign-in Sheet
2. Planning Team Meeting Agenda
3. Worksheet #3: Risk Assessment

4. Worksheet #4: Vulnerability Statements
5. Worksheet #5: Mitigation Goals
6. Worksheet #6: Mitigation Strategies
7. Safety Plan Candidate Emphasis Areas
8. Safety Implementation Plan Notes
9. Public Meeting Sign-in Sheet
10. Public Meeting Flyer
11. Public Meeting Handouts
12. Public Meeting Presentation Slides
13. Maps

End Meeting Minutes

CC: File

Planning Team Meeting

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

Date / Location: November 5, 2018

Sign In Sheet

[illegible]

TRANSPORTATION SAFETY PLAN & HAZARD MITIGATION PLAN

PLANNING TEAM MEETING AGENDA

Monday Afternoon

Hazard Mitigation Plan

- | | |
|----------------|--|
| 12:30 PM | Introductions & Project Background |
| 12:45 PM | Worksheet 3 – Risk Analysis |
| 1:45 PM | BREAK |
| 2:00 PM | Worksheet 4 – Vulnerability Statements
Worksheet 5 – Mitigation Goals |
| 2:30 PM | Worksheet 6 – Mitigation Action Plan |
| 3:30 PM | BREAK |

4:00 PM	PUBLIC MEETING (1 HOUR)
----------------	--------------------------------

Tuesday Morning

Transportation Safety Plan

- | | |
|----------|-----------------------------------|
| 9:00 AM | Determine Emphasis Areas |
| 9:30 AM | Implementation Plan Matrix |
| 10:30 AM | Closing Statements & Action Items |

Risk Analysis Worksheet *(Profiled Hazards Only)*

Column A Facility Name	Column B Number of Occupants	Column C Location	Column D Estimated Value	Column E: Hazard Impacts <i>(Fill in Hazards in Blank Columns Below)</i>									
				Earthquake	Erosion	Extreme Cold	Flood	Severe Wind	Severe Winter Weather	Subsidence	Tsunami	Volcano	Wildfire
School	30			X		X			X				X
Teachers Housing	3			X		X		X	X				X
School Generator	1			x					x			X	X
School Fuel Storage	1			X		X		X	X			X	X
Clinic	2			X		X		X	X		X	X	X
Subsistence Areas	N/A				X		X		X	x		X	X
Post Office	2			X		X		X	X			X	X
Church	25			X				X	X				X
Cemetery	N/A			x				X		x			X
Village Office	15			X	x	X		X	X				X
Electric / Telephone Utilities	N/A			X				X	X	x			X
Water Utilities	N/A			X		X							
WTP Source & Well (2 old / 2 new)	2			X		X	x						
Sewer Utilities	N/A			X		X							
Sewage Lagoon	N/A			x2		X			X		x		
Fuel Storage (Heating fuel)	2			X		X			X		x		X
Power Plant	2			X				X	X			X	X

Risk Analysis Worksheet (Profiled Hazards Only)

Column A Facility Name	Column B Number of Occupants	Column C Location	Column D Estimated Value	Column E: Hazard Impacts (Fill in Hazards in Blank Columns Below)									
				Earthquake	Erosion	Extreme Cold	Flood	Severe Wind	Severe Winter Weather	Subsidence	Tsunami	Volcano	Wildfire
New Landfill	1		1.5 mill	x				X	X				X
Airport / Maintenance Building	1			X		X		X	X			X	X
Village Maintenance Building	1			X		x		X	X				X
Boat Yard	na			x	X		X	x			x		
Propane Farm	2			X		x	X	X	X		x	x	X
Gas Dispenser	2			X		x	x	X	X		x	X	X
River	N/A				X				X		X	X	
Water Treatment Plant	2			x		X			X			x	
GCI Tower	n/a			x			x	x	x			x	x
Village Equipment (dump truck, grader, front end loader, excavator)	n/a					x			x			x	x
gravel pit	n/a			x						x			
old landfill (closed)	n/A						x						

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 15 statements.*

- 1.) Residents with respiratory problems have difficulty breathing when subjected to smoke from wildfires. The community is not ready to fight a fire should one happen in or near the community. A wildfire in or around the community would cause devastating damage to community assets and natural subsistence areas.
- 2.) Power outages occur when overhead power lines are blown over due to high wind speeds, which is especially a concern during winter months for residents without backup power or wood stoves.
- 3.) Some residents believe the school building is not structurally stable enough to withstand a large earthquake.
- 4.) The boat landing is experiencing a slow onset of erosion. The material is being deposited in the river channel causing sandbars and hazardous areas of shallow water. The river channels are also changing due to erosion caused by ice and river currents.
- 5.) Underground water pipes often break due to extreme cold conditions and lack of insulation or heat tape.
- 6.) Flooding occurs intermittently around the community. Spot areas of Beach Road have washed out in the past due to flooding and inadequate culverts. This road provides access to the new landfill, cannery, and subsistence trails. Additionally, the “stinky pond,” which is a low-lying area along the river near the boat landing, floods often. Boats located at the boat landing get overturned due to high winds and flooding. This causes damages to the boats and motors. Some of these boats have been stranded in the “stinky pond”.

- 7.) It is a challenge to keep the roads clear during severe winter weather events. This is a concern if there is a medical emergency. The Airport access road has a steep grade, and can be hazardous when icy.
- 8.) Buildings are settling and beginning to tilt due to subsidence happening in the community. Residents have experienced sinkholes in certain areas of the tundra. While hiking for hunting/gathering activities in these areas, their feet sink quickly into the tundra, which can make someone stranded or cause injuries such as ankle sprains. This is due to the melting permafrost.
- 9.) Tsunami warnings are issued when large earthquakes occur in the region. Tsunamis may not reach Twin Hills, but large waves could impact the neighboring community of Togiak. Dozens of Togiak residents plan to evacuate to Twin Hills in the event of an emergency, which would put a strain on their community resources.
- 10.) Volcanic ash-fall is a health hazard for children, elders, and residents with respiratory conditions. Additionally, equipment motors are at risk of being damaged by volcanic ash because equipment shelter and protection methods are limited.
- 11.) _____

- 12.) _____

- 13.) _____

- 14.) _____

- 15.) _____

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 15 statements.*

- 1.) Reduce possibility of damages from earthquakes.
- 2.) Reduce possibility of damages from erosion.
- 3.) Reduce possibility of damages from extreme cold.
- 4.) Reduce possibility of damages from floods.
- 5.) Reduce possibility of damages from severe winds.
- 6.) Reduce possibility of damages from severe winter weather.
- 7.) Reduce possibility of damages from subsidence.
- 8.) Reduce possibility of damages from tsunamis.
- 9.) Reduce possibility of damages from volcanos.
- 10.) Reduce possibility of damages from wildfires.
- 11.) Build capacity of the Tribe to prepare, respond to, and recover from disasters.
- 12.) Promote recognition and mitigation of all natural hazards that affect the Community.
- 13.) _____

- 14.) _____

Worksheet #6 Mitigation Actions

ACTIONS
Column B2
Description
Earthquake - building new homes and building with earthquake resistance (bracing), checklist for after earthquake, earthquake education, building inspection for school,
Erosion - monitor sticks for erosion near "stinky pond", plant grass along banks
Extreme Cold - weatherization (Windows), insulation, doors, insulation under floor, arctic boxes to protect pipes,
Flood - encourage insurance on boat, investigate new drainage solutions for beach road (replacing culverts and heaving up) hydrology
Severe Wind - secure roofs (tie downs), bracing electric poles, continue village council can fix electrical issue, AVEC connecting to Togiak electricity (come with a back up generator), portable generator for clinic, educating public to secure items in yard, windmill (alternative source of energy), cross wind runway.
Severe Winter Weather - winterization checklist, continued training for graders,
Subsidence - community awareness of where its happenings, continue to build up roads, secure gravel to build up roads and pads.
Tsunami - educating community members where to go and what to look for. Plan for placing members from Togiak, acquire supplies for additional people.
Volcano - educating people on how the ash can impact them, make sure clinic can care for people with respiratory problems, masks for community members, replacing filters (having replacement filters on hand, other methods for cleaning filters),
Wildfire - masks, upgraded hoses, code red wagon (replenish supplies), yearly inspection for code red wagon, reestablish volunteer firefighting, training for volunteers, brush cutting around the airport, educating about fire barriers around homes, continue to post information about air quality (boards and newsletters)
create an evacuation route / higher ground (emergency plan), educating public about emergency plan
evacuation road

Twin Hills Tribal Transportation Safety Plan
Candidate Emphasis Areas

Emphasis Area	Strategic Linkage	Potential Strategies
Road Conditions	<ul style="list-style-type: none"> • 53% of survey respondents marked “dusty roads” and “poor road conditions/lack of maintenance” as high priorities • 47% of surveys marked “intersection safety” as a high priority • 3 people suggested road maintenance as a way to improve safety on surveys 	<ul style="list-style-type: none"> • Widen and build up roads • Regular road grading • Brush clearing • Ice/snow removal • Drainage improvements • Dust control
Trail Safety	<ul style="list-style-type: none"> • ATV trails are frequently used year round for subsistence/community access • Lack of emergency response 	<ul style="list-style-type: none"> • Trail markers • Search and rescue service • Improved communications • Thin ice warnings
Boating Safety	<ul style="list-style-type: none"> • 53% of surveys marked “lack of life vests” as a high priority • 63% of people said they boat to get around the community 	<ul style="list-style-type: none"> • More life vests at loaner board • Boating safety education / Kids Don’t Float curriculum • Proper safety gear in boats • Buoys in shallow waters
Pedestrian Safety	<ul style="list-style-type: none"> • 94% of survey respondents say they walk to get around the community • 65% of surveys marked “lack of streetlights” a high priority 	<ul style="list-style-type: none"> • Streetlights • Wider roads • Reflectors • Speed limits • Animal control
Young Drivers	<ul style="list-style-type: none"> • 3 people suggested driver education as a way to improve safety on surveys • 41% of surveys marked “lack of helmet use for ATVs” as a high priority • 1 reported crash involving a 27-year old with reported alcohol use 	<ul style="list-style-type: none"> • ATV safety courses in school • Helmet program / city ordinance • Intoxicated driving awareness

IMPLEMENTATION PLAN

EMPHASIS AREA #1			STRATEGIC LINKAGE			
Road Conditions						
OBJECTIVES						
SUCCESS INDICATORS						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	educate on right of way in intersection (posters/signs at school), word of mouth to reduce speed		Village	2019		
ENFORCEMENT	Caution signs, school zone signs (bigger, more visible, highly reflective sign)		TTP (William)	fall 2019		
ENGINEERING	widening roads, build up roads, need a sieve for gradation for material, invest in an industrial chain saw, continue brush cutting, drainage improvements (priority Beach Road), other areas around community, investigate dust control options and cost		TTP (William)	2024, Chain Saw (spring 2019)		
EMERGENCY SERVICES	regular grading road to remove potholes (prioritize areas), continue ice/snow removal (prioritize Beach Road),		Village	Ongoing		

IMPLEMENTATION PLAN

EMPHASIS AREA #2			STRATEGIC LINKAGE			
Trail Safety						
OBJECTIVES						
SUCCESS INDICATORS						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Continue word of mouth about thin ice, permanent thin ice warning signs, continue/update contact information, winter trail safety, trail maps		Village	2020		
ENFORCEMENT	Community service to replace trail markers (advertize the consequence for this)		Community Effort	Ongoing		
ENGINEERING	maintaining, updating, improving trails (mats preference)		TTP (William)	2029		
EMERGENCY SERVICES	Trail markers, inspect trail markers, equipment for search and rescue (communication devices, transportation (ie ATV, skiff, snow machine) training for search and rescue)		Village	2024, training (ongoing)		

IMPLEMENTATION PLAN

EMPHASIS AREA #3			STRATEGIC LINKAGE			
Boating Safety						
OBJECTIVES						
SUCCESS INDICATORS						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Poster on loaner board for benefits of life vest, instructions of use, label vests with THVC, Class at school during spring break about boat safety		Village, School	Spring 2020		
ENFORCEMENT	Post law on life vests		Village	Summer 2020		
ENGINEERING	Boat harbor and barge landing (bulk head) for crane		TTP	2029		
EMERGENCY SERVICES	get additional life vest for loaner board, barrel with big sticks that people could borrow for oars		Village	2020		

IMPLEMENTATION PLAN

EMPHASIS AREA #4			STRATEGIC LINKAGE			
Pedestrian Safety						
OBJECTIVES						
SUCCESS INDICATORS						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Posters about reflectors, continued education for kids about animal safety		School, Village, community	ongoing, ASAP (reflectors)		
ENFORCEMENT	Reduce speeds (word of mouth)		Community	Ongoing		
ENGINEERING	Connecting to Togiak for electricity, maintain current street lights, Widen roads		TTP	2029 (widen roads), 2021 (electricity), ongoing light mx		
EMERGENCY SERVICES	Reflectors, continue pet vaccinations		BBAHC (Vet), Division of public health, village	ongoing (vet), ASAP (Reflectors)		

IMPLEMENTATION PLAN

EMPHASIS AREA #5			STRATEGIC LINKAGE			
Young Drivers						
OBJECTIVES						
SUCCESS INDICATORS						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING AND EVALUATION
EDUCATION	Continue intoxicated awareness effort, ATV driver education course at High School Level		Village, School	Ongoing, once per year (ATV course)		
ENFORCEMENT	Continue word of mouth about drinking and driving		Community, Village	Ongoing		
ENGINEERING	Children playing signs (Kids at play) permanent		Village	2021		
EMERGENCY SERVICES	Helmet for kids (16 and under), consider implementing ordinance to require helmet use.		Village	Ongoing (Helmets), 2020		

Community Meeting

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

Date / Location: November 5, 2018 at 4 PM / School Gym

Sign In Sheet

Name	Name	Name
Neomi Winters		
Dane Abraham		
William Flatsik		
Shannon K. Small		
Nicole D Small		
Houdy Tammy		
Kaylynn Small		
Joel		
John W Sharp		
Gladys Small		
James Hamechal		
Stella Mark		
Mickey Sharp		

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TWIN HILLS 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 10/22/2018

Monday
November 5, 2018
4:00 PM

School Gym

Door Prizes!

Snacks &
Refreshments

Discuss the
future of Twin
Hills!

For more information or to
submit comments contact:

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

Bristol



ENGINEERING
SERVICES COMPANY, LLC



Community Meeting Handout Twin Hills Tribal Transportation Safety Plan November 5, 2018

Dear Participant;

Thank you for attending the public meeting for the Twin Hills 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.

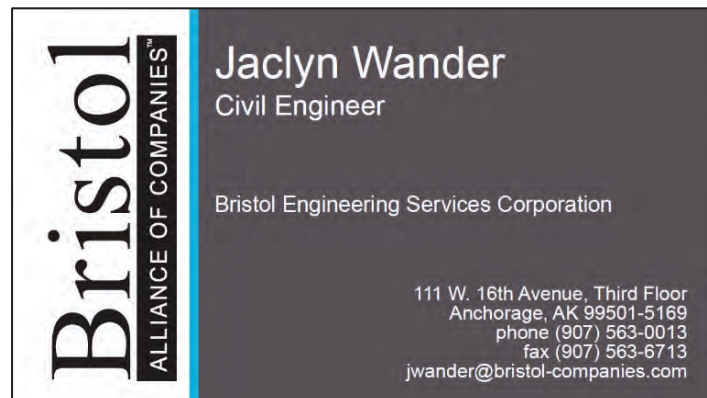
Bristol Engineering has been contracted by Bristol Bay Native Association (BBNA) on behalf of the Twin Hills Village Council to develop a Tribal Transportation Safety Plan (TTSP) for your community. A TTSP is a collaborative and comprehensive document that identifies transportation safety issues and 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 Handout Twin Hills Tribal Hazard Mitigation Plan November 5, 2018

Dear Participant;

Thank you for attending the public meeting for the Twin Hills 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!



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Ready.gov/prepare



FEMA
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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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Twin Hills Village
Public Meeting
November 5, 2018


Twin Hills Village Tribal Transportation Safety Plan

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

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Safety Minute



CODE ZERO
Code Zero means zero incidents, zero injuries, and zero losses. Code Zero positively influences how we think and act. Code Zero is the Bristol Way.

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Presentation Overview

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



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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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Safety Partners

- ▶ Twin Hills Village
- ▶ City of Twin Hills
- ▶ Twin Hills Native Corp.
- ▶ Alaska State Troopers
- ▶ Togiak Resources
- ▶ Twin Hills Clinic / BBAHC
- ▶ BBNA
- ▶ Bristol Engineering / BBNC
- ▶ Alaska DOT&PF
- ▶ FHWA
- ▶ BIA TTP
- ▶ DNR / Coast Guard




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Existing Safety Efforts

- ▶ Road Maintenance
 - Grade roads
 - Brush clearing
 - Snow / ice removal
 - Culvert cleaning
- ▶ First Responder Training
 - Team of 12
- ▶ Infrastructure Improvements
 - Boat launch grading
 - 13 new streetlights
- ▶ Community Education
 - Helmet program
 - Kid's Don't Float loader board
 - Boating safety class at school



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Data Collection

- ▶ DOT Crash Data
- ▶ Public Surveys





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DOT Crash Data

- ▶ 1 Pickup Truck Crash in April, 2014
 - 12:00 AM on Airport Road
 - 27-year old male, one other passenger
 - Improper left turn, truck overturn
 - Minor injuries / property damage
 - No seatbelts
 - Reported alcohol use



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Public Surveys

► 17 total surveys received!

COMMUNITY SURVEY

1. Please take an interest in our community and help us improve it by answering the questions below. Your answers will help us make decisions about the future of our community. The survey is confidential and your answers will not be shared with the public. The survey is available in English and Spanish. Please print and fill out the survey. Thank you for your participation.

2. How do you get around? (Select all that apply)

Mode	Walk	Bike	Car or Van	Bus	Other
Walk	100%	0%	0%	0%	0%
Bike	0%	100%	0%	0%	0%
Car or Van	0%	0%	100%	0%	0%
Bus	0%	0%	0%	100%	0%
Other	0%	0%	0%	0%	100%

3. What are the most important safety issues in your community? (Select all that apply)

Issue	High	Medium	Low
Lack of streetlights	65%	18%	18%
Lack of life vest use for boaters	53%	35%	12%
Dusty roads	53%	47%	0%
Poor road conditions / lack of maintenance	53%	41%	6%

Page 1 of 2

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Survey Data – Question #1: Safety Priorities

► 17 total surveys received!

What are the most important safety issues in your community? (Select all that apply)

Issue	High	Medium	Low
Lack of streetlights	65%	18%	18%
Lack of life vest use for boaters	53%	35%	12%
Dusty roads	53%	47%	0%
Poor road conditions / lack of maintenance	53%	41%	6%
Intersection safety (lack of signs, tall brush, blind spots)	47%	47%	6%
Limited emergency response (police, medical, fire)	47%	47%	6%
Lack of helmet use for ATVs and bicyclists	47%	47%	6%
Drug or alcohol impaired driving	47%	47%	6%
Lack of natural disaster preparedness	47%	47%	6%
Lack of traffic law / enforcement	47%	47%	6%
Icy roads / poor winter maintenance	47%	47%	6%
Poor cell phone service	47%	47%	6%
Poor trail conditions / lack of maintenance	47%	47%	6%
Drainage issues (road washouts, standing water)	47%	47%	6%
Airport safety issues	47%	47%	6%
Boat launch or harbor safety issues	47%	47%	6%
Lack of road or trail markers	47%	47%	6%
Lack of bridges or poor bridge safety	47%	47%	6%
Lack of driver's education	47%	47%	6%
Poor road design (narrow roads, steep roads)	47%	47%	6%
Lack of sidewalks or bike lanes	47%	47%	6%
Lack of car seats / child restraint use	47%	47%	6%
Lack of seatbelt use	47%	47%	6%
Speeding	47%	47%	6%
Boating hazards or navigation issues	47%	47%	6%
Wildlife danger for drivers or pedestrians	47%	47%	6%
Talking on phone or texting while driving	47%	47%	6%

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Survey Data – Question #1: Safety Priorities

► Top Safety Priorities

- 65% Lack of streetlights
- 53% Lack of life vest use for boaters
- 53% Dusty roads
- 53% Poor road conditions / lack of maintenance

What are the most important safety issues in your community? (Select all that apply)

Issue	High	Medium	Low
Lack of streetlights	65%	18%	18%
Lack of life vest use for boaters	53%	35%	12%
Dusty roads	53%	47%	0%
Poor road conditions / lack of maintenance	53%	41%	6%

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Survey Data – Question #2: Age

► Helps correlate travel modes with driver age

What is your age?

Age Group	Count
20-29	6
30-39	25
40-49	13
50-59	31
60-69	25

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Survey Data – Question #3: Transportation Modes

► Evaluates most common travel modes

What is your primary mode of transportation?

Mode	Count
4-Wheeler	14
Snow machine	6
Truck	0
Car	3
SUV	0
Walk	15
Bike	1
Get a ride	7
Boat	10
Other (Van)	1


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Survey Data – Question #4: Car Crashes

► 2016 or 2017

- Vehicle ran off road and crashed
- Beach Road
- Broken windshield
- Impaired driving
- 50 or 60 year old driver

► Other crashes?



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Survey Data – Question #5: Strategies

- What could be done to improve transportation safety?
 - Maintain roads, remove potholes
 - Safety classes, community awareness
 - Cut brush
 - Streetlights
 - Trail markers
 - Educate new drivers
 - Slow down
- Other strategies?



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Candidate Emphasis Areas

- Road Conditions
 - Maintain (Potholes, brush, ice)
 - Drainage improvements
 - Dust control
- Boating Safety
 - More life vests
 - Safety gear in boats
 - Education
- Pedestrian Safety
 - Speed limits
 - Widen roads
 - Streetlights
- Trail Safety
 - Trail markers
 - Search and rescue
 - Communication
 - Thin ice
- Young Drivers
 - ATV Safety Classes
 - Helmet program
 - Intoxicated driving education
- Others? Comments?

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Implementation Plan

EMPHASIS AREA #1		STRATEGIC LINKAGE				
SELECTED	REDUCE THE RISK AND SEVERITY OF SPEEDING-RELATED CAR CRASHES	10% of survey respondents marked "speeding" as a high priority, making it the 4th highest community safety priority	10% of survey respondents marked "speeding" as a high priority, making it the 4th highest community safety priority	10% of survey respondents marked "speeding" as a high priority, making it the 4th highest community safety priority	10% of survey respondents marked "speeding" as a high priority, making it the 4th highest community safety priority	
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 enforce speed limits, as appropriate. Increase VPSO presence at the school zone before and after school.	Improve enforcement of speed limits and increase visibility of police force	Transportation Coordinator Tribal Administrator	On-going, especially during school months	Reduced number of speeding-related accidents	Keep record of speeding complaints before and after installation of speed bumps
ENGINEERING	Install painted speed bumps at clear locations to reduce speeds, especially within the school zones 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 2023	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	Maintain a local VPSO. Incentivize people to join the volunteer emergency response team to respond 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 incident.	Transportation Coordinator Tribal Administrator	On-going	Number of days the VPSO patrolled the school zone. Increased number of volunteers on the emergency response team.	Schedule volunteer 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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Twin Hills 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

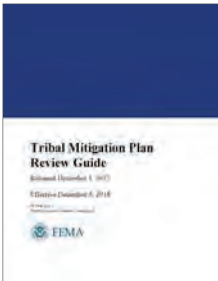



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FEMA Tribal Hazard Mitigation Plan (THMP)

- 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



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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
 - Earthquake
 - Erosion
 - Extreme Cold
 - Flood
 - Severe Wind
 - Severe Winter Weather
 - Subsidence
 - Tsunami
 - Volcano
 - Wildfire
- What experiences have you had?

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Community Assets

- Asset
 - People
 - Economy
 - Built Environment
 - Natural Environment
- Major Community Assets
 - School
 - Clinic
 - Post Office
 - Church / Cemetery
 - New Landfill
 - Airport
 - Roads
 - Boat Yard
 - Village Office
 - Utilities
 - Others




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Mitigation Goals

- Goals Based on Vulnerability Statements
 - Residents with respiratory problems have difficulty breathing when subjected to smoke from wildfires. The community is not ready to fight a fire should one happen.
 - Power outages occur when overhead power lines are blown over due to high wind speeds.



FEMA Local Mitigation Planning Handbook
March 2013

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Mitigation Goals


- Community Goals
 - Reduce possibility of damages due to:
 - Earthquake
 - Extreme Cold
 - Severe Wind
 - Subsidence
 - Volcano
 - Erosion
 - Flood
 - Severe Winter Weather
 - Tsunami
 - Wildfire
 - Build the capacity of the Tribe to prepare, respond to, and recover from disasters.
 - Promote recognition and mitigation of all natural hazards that affect the Community.

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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
 - Emergency Plan
 - Emergency Evacuation Road
 - Winterization checklist
 - First Responders / Training
 - Erosion Monitoring
 - Secure Boats in boat yard
 - Investigate new drainage solutions for beach road
 - Education on natural hazards
- 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?



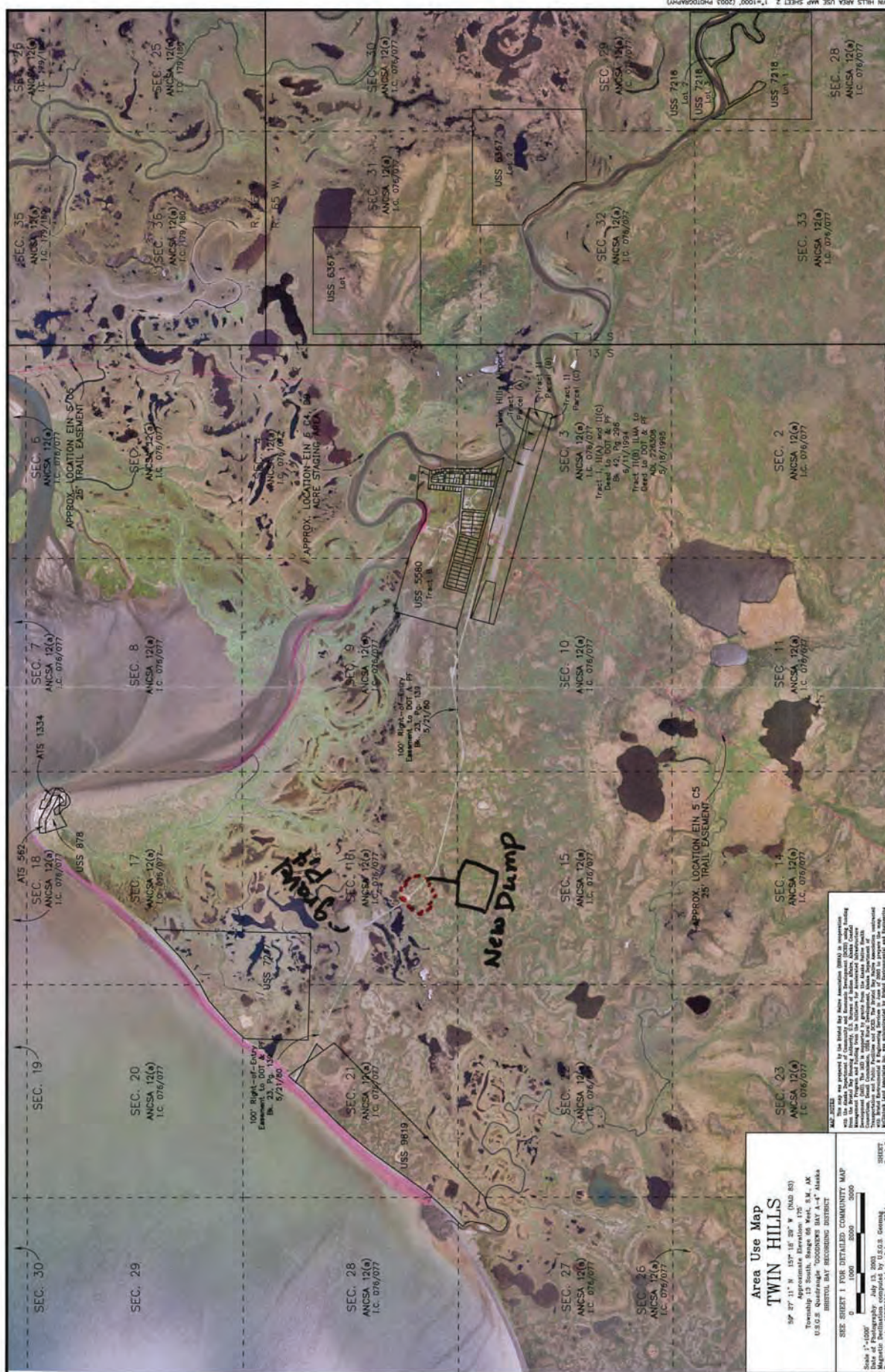
Contact	
BBNA DOTID	Bristol Engineering (BESC)
Annie Fritze (907) 842-6143 afritze@bbna.com	Danielle Dance (907) 563-0013 ddance@bristol-companies.com

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Questions or Comments

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APPENDIX B: COMMUNITY SURVEY RESULTS

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 34

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 _____

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**

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? _____

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 _____

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**

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 34

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 _____

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**

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	(H)	M	L
Poor road design (narrow roads, steep roads)	H	(M)	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	(M)	L
Drainage issues (road washouts, standing water)	H	(M)	L
Speeding	H	(M)	L
Talking on phone or texting while driving	H	M	(L)
Drug or alcohol impaired driving	H	(M)	L
Dusty roads	H	(M)	L
Icy roads / poor winter maintenance	(H)	M	L
Lack of helmet use for ATVs and bicyclists	H	(M)	L
Lack of seatbelt use	H	(M)	L
Lack of car seats / child restraint use	H	(M)	(L)
Lack of driver's education	H	(M)	L
Lack of traffic law / enforcement	H	M	(L)
Lack of street lights	(H)	M	L
Lack of sidewalks or bike lanes	H	(M)	L
Lack of bridges or poor bridge safety	H	(M)	L
Lack of road or trail markers	H	(M)	L
Wildlife danger for drivers or pedestrians	H	(M)	L
Poor trail conditions / lack of maintenance	H	(M)	L
Poor cell phone service	(H)	M	L
Boat launch or harbor safety issues	H	(M)	L
Lack of life vest use for boaters	H	(M)	L
Boating hazards or navigation issues	H	(M)	L
Limited emergency response (police, medical, fire)	H	(M)	L
Lack of natural disaster preparedness	H	(M)	L
Lack of evacuation route / safety shelters	H	(M)	L
Airport safety issues	H	(M)	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 24

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 _____

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

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

Maintaining the road & brush
on the sides. Many times you'll
come across some one on the
opposite side of the road. Just
trying to avoid pot holes.

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 30's

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 _____

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? Suzuki - windshield cracked, van - crashed

What caused the accident? impaired driving

Where did the accident occur? beach road

How old were the people involved? _____

What were the injuries or property damage? windshield cracked, van damaged

What types of vehicles were involved? Suzuki, van

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 57

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 _____

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 NO

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 28

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 _____

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 37

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

<u>4-wheeler</u>	Snow machine	Truck	Car	SUV
<u>Walk</u>	Bike	Get a ride	Boat	

Other _____

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

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

Cut down bushes & maintain roads

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	(M)	L
Poor road design (narrow roads, steep roads)	H	M	(L)
Intersection Safety (lack of signs, tall brush, blind spots)	(H)	M	L
Drainage issues (road washouts, standing water)	H	(M)	L
Speeding	H	(M)	L
Talking on phone or texting while driving	H	M	(L)
Drug or alcohol impaired driving	H	M	(L)
Dusty roads	(H)	M	L
Icy roads / poor winter maintenance	(H)	M	L
Lack of helmet use for ATVs and bicyclists	(H)	M	L
Lack of seatbelt use	H	M	(L)
Lack of car seats / child restraint use	H	M	(L)
Lack of driver's education	H	M	(L)
Lack of traffic law / enforcement	(H)	M	L
Lack of street lights	(H)	M	L
Lack of sidewalks or bike lanes	H	M	(L)
Lack of bridges or poor bridge safety	H	M	(L)
Lack of road or trail markers	(H)	M	L
Wildlife danger for drivers or pedestrians	H	M	(L)
Poor trail conditions / lack of maintenance	(H)	M	L
Poor cell phone service	H	(M)	L
Boat launch or harbor safety issues	(H)	M	L
Lack of life vest use for boaters	(H)	M	L
Boating hazards or navigation issues	H	(M)	L
Limited emergency response (police, medical, fire)	(H)	M	L
Lack of natural disaster preparedness	(H)	M	L
Lack of evacuation route / safety shelters	(H)	M	L
Airport safety issues	H	M	(L)
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 29

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 _____

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

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

The Community of Twin Hills can use some
Street lights and new trail markers. Trails
used to be marked but have been damaged
by weather and/or people over the years.

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 52

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 _____

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 N/A but we need

What happened? safety classes

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

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

Have community awareness

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	(H)	M	L
Poor road design (narrow roads, steep roads)	(H)	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	(H)	M	L
Drainage issues (road washouts, standing water)	(H)	M	L
Speeding	H	(M)	(L)
Talking on phone or texting while driving	H	M	(L)
Drug or alcohol impaired driving	(H)	M	L
Dusty roads	(H)	M	L
Icy roads / poor winter maintenance	(H)	M	L
Lack of helmet use for ATVs and bicyclists	(H)	M	L
Lack of seatbelt use	H	M	(L)
Lack of car seats / child restraint use	H	M	(L)
Lack of driver's education	H	M	(L)
Lack of traffic law / enforcement	(H)	M	L
Lack of street lights	(H)	M	L
Lack of sidewalks or bike lanes	H	(M)	L
Lack of bridges or poor bridge safety	(H)	M	L
Lack of road or trail markers	(H)	M	L
Wildlife danger for drivers or pedestrians	H	(M)	L
Poor trail conditions / lack of maintenance	(H)	M	L
Poor cell phone service	H	(M)	L
Boat launch or harbor safety issues	H	M	(L)
Lack of life vest use for boaters	(H)	M	L
Boating hazards or navigation issues	H	(M)	L
Limited emergency response (police, medical, fire)	H	(M)	L
Lack of natural disaster preparedness	H	(M)	L
Lack of evacuation route / safety shelters	(H)	M	L
Airport safety issues	(H)	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 55

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 _____

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 N/A 4 wheeler accidents

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

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

Road maintenance.

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	(M)	L
Poor road design (narrow roads, steep roads)	H	M	(L)
Intersection Safety (lack of signs, tall brush, blind spots)	H	(M)	L
Drainage issues (road washouts, standing water)	H	(M)	L
Speeding	H	(M)	(L)
Talking on phone or texting while driving	H	M	(L)
Drug or alcohol impaired driving	(H)	M	L
Dusty roads	H	(M)	L
Icy roads / poor winter maintenance	H	(M)	L
Lack of helmet use for ATVs and bicyclists	H	(M)	L
Lack of seatbelt use	H	(M)	L
Lack of car seats / child restraint use	H	M	(L)
Lack of driver's education	H	M	(L)
Lack of traffic law / enforcement	H	M	(L)
Lack of street lights	H	(M)	L
Lack of sidewalks or bike lanes	H	M	(L)
Lack of bridges or poor bridge safety	H	M	(L)
Lack of road or trail markers	H	(M)	L
Wildlife danger for drivers or pedestrians	H	(M)	L
Poor trail conditions / lack of maintenance	H	(M)	L
Poor cell phone service	H	M	(L)
Boat launch or harbor safety issues	H	M	(L)
Lack of life vest use for boaters	H	(M)	L
Boating hazards or navigation issues	H	(M)	L
Limited emergency response (police, medical, fire)	H	(M)	L
Lack of natural disaster preparedness	H	(M)	L
Lack of evacuation route / safety shelters	H	M	(L)
Airport safety issues	H	M	(L)
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 68

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

<u>4-wheeler</u>	Snow machine	Truck	Car	SUV
<u>Walk</u>	Bike	<u>Get a ride</u>	<u>Boat</u>	

Other _____

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 August 2016

What happened? Light truck ran off the road

What caused the accident? ?

Where did the accident occur? Beach Road

How old were the people involved? 50 + 60+

What were the injuries or property damage? Sore head and damage to window

What types of vehicles were involved? Suzuki Light truck

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 37

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 _____

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 28

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 _____

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 N/A

What happened? N/A

What caused the accident? N/A

Where did the accident occur? N/A

How old were the people involved? N/A

What were the injuries or property damage? N/A

What types of vehicles were involved? N/A

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

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

Educating new drivers on transportation safety

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	<u>H</u>	M	L
Poor road design (narrow roads, steep roads)	<u>H</u>	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	<u>H</u>	M	L
Drainage issues (road washouts, standing water)	<u>H</u>	M	L
Speeding	H	<u>M</u>	L
Talking on phone or texting while driving	H	<u>M</u>	L
Drug or alcohol impaired driving	<u>H</u>	M	L
Dusty roads	H	<u>M</u>	L
Icy roads / poor winter maintenance	H	<u>M</u>	L
Lack of helmet use for ATVs and bicyclists	<u>H</u>	M	L
Lack of seatbelt use	<u>H</u>	M	L
Lack of car seats / child restraint use	<u>H</u>	M	L
Lack of driver's education	<u>H</u>	M	L
Lack of traffic law / enforcement	<u>H</u>	M	L
Lack of street lights	<u>H</u>	M	L
Lack of sidewalks or bike lanes	H	<u>M</u>	L
Lack of bridges or poor bridge safety	H	<u>M</u>	L
Lack of road or trail markers	H	<u>M</u>	L
Wildlife danger for drivers or pedestrians	H	<u>M</u>	L
Poor trail conditions / lack of maintenance	H	M	<u>L</u>
Poor cell phone service	<u>H</u>	M	L
Boat launch or harbor safety issues	H	<u>M</u>	L
Lack of life vest use for boaters	H	<u>M</u>	L
Boating hazards or navigation issues	H	<u>M</u>	L
Limited emergency response (police, medical, fire)	H	<u>M</u>	L
Lack of natural disaster preparedness	H	<u>M</u>	L
Lack of evacuation route / safety shelters	H	<u>M</u>	L
Airport safety issues	H	<u>M</u>	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 44

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 Walk

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 N/A

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 47

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

<u>4-wheeler</u>	Snow machine	Truck	<u>Car</u>	SUV
<u>Walk</u>	Bike	Get a ride	<u>Boat</u>	

Other _____

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 NO

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

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

Slow down public knowledge.

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 54

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 Van

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 August / 2017

What happened? Drunk Driving single accident
damaging vehicle, no injury

What caused the accident? judgement

Where did the accident occur? out of the road

How old were the people involved? 60+

What were the injuries or property damage? wind shield

What types of vehicles were involved? side by side w/ small bed big as

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

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	(L)
Poor road design (narrow roads, steep roads)	H	M	(L)
Intersection Safety (lack of signs, tall brush, blind spots)	H	(M)	L
Drainage issues (road washouts, standing water)	H	(M)	L
Speeding	(H)	M	L
Talking on phone or texting while driving	H	M	(L)
Drug or alcohol impaired driving	H	(M)	L
Dusty roads	H	(M)	L
Icy roads / poor winter maintenance	H	(M)	L
Lack of helmet use for ATVs and bicyclists	(H)	M	L
Lack of seatbelt use	(H)	M	L
Lack of car seats / child restraint use	(H)	M	L
Lack of driver's education	H	M	(L)
Lack of traffic law / enforcement	H	M	(L)
Lack of street lights	H	M	(L)
Lack of sidewalks or bike lanes	H	(M)	L
Lack of bridges or poor bridge safety	H	M	(L)
Lack of road or trail markers	H	M	(L)
Wildlife danger for drivers or pedestrians	H	(M)	L
Poor trail conditions / lack of maintenance	H	(M)	L
Poor cell phone service	H	(M)	L
Boat launch or harbor safety issues	H	(M)	L
Lack of life vest use for boaters	(H)	M	L
Boating hazards or navigation issues	H	M	(L)
Limited emergency response (police, medical, fire)	(H)	M	L
Lack of natural disaster preparedness	(H)	M	L
Lack of evacuation route / safety shelters	(H)	M	L
Airport safety issues	H	M	(L)
Other _____	H	M	L
Other _____	H	M	L
Other _____	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 39

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 _____

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**

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

COMMUNITY SURVEY

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"

Types of Safety Issues	High Priority or Concern	Medium Priority or Concern	Low Priority or Concern
Poor road conditions / lack of maintenance	H	M	L
Poor road design (narrow roads, steep roads)	H	M	L
Intersection Safety (lack of signs, tall brush, blind spots)	H	M	L
Drainage issues (road washouts, standing water)	H	M	L
Speeding	H	M	L
Talking on phone or texting while driving	H	M	L
Drug or alcohol impaired driving	H	M	L
Dusty roads	H	M	L
Icy roads / poor winter maintenance	H	M	L
Lack of helmet use for ATVs and bicyclists	H	M	L
Lack of seatbelt use	H	M	L
Lack of car seats / child restraint use	H	M	L
Lack of driver's education	H	M	L
Lack of traffic law / enforcement	H	M	L
Lack of street lights	H	M	L
Lack of sidewalks or bike lanes	H	M	L
Lack of bridges or poor bridge safety	H	M	L
Lack of road or trail markers	H	M	L
Wildlife danger for drivers or pedestrians	H	M	L
Poor trail conditions / lack of maintenance	H	M	L
Poor cell phone service	H	M	L
Boat launch or harbor safety issues	H	M	L
Lack of life vest use for boaters	H	M	L
Boating hazards or navigation issues	H	M	L
Limited emergency response (police, medical, fire)	H	M	L
Lack of natural disaster preparedness	H	M	L
Lack of evacuation route / safety shelters	H	M	L
Airport safety issues	H	M	L
Other <u>what about Herion?</u>	H	M	L
Other <u>and meth?</u>	H	M	L
Other	H	M	L

TWIN HILLS
2019 TRIBAL TRANSPORTATION SAFETY PLAN

2. How old are you? 56

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 _____

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 none

What happened? n

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

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

Under age driving

APPENDIX C: IMPLEMENTATION PLAN

IMPLEMENTATION PLAN

EMPHASIS AREA #1		STRATEGIC LINKAGE				
Road Conditions		<p>► Poor road conditions documented in site visit during development of Twin Hills 2018 Long-Range Transportation Plan.</p> <p>► 53% of survey participants marked both "dusty roads" and "poor road conditions / lack of maintenance" as high safety priorities.</p>				
OBJECTIVES						
Improve road conditions and driver safety through rehabilitation projects, enhanced road maintenance, and speed enforcement.						
SUCCESS INDICATORS						
Fewer potholes, blind corners, and dust emissions.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING & EVALUATION
EDUCATION	Use posters/signs to educate people about rules of the road and right-of-way in the intersection.	Improved community knowledge of driving laws and practices.	Village	2019	Hanging of posters in school, post office, blue building, etc.	Discuss effectiveness of posters at monthly Council meetings.
ENFORCEMENT	Use word of mouth to enforce speed limits. Install caution signs in the school zone (bigger, more visible, highly reflective).	Slower speeds and improved driver awareness, especially in the school zone.	TTP (William)	Fall 2019	Determine sign locations. Installation of signs.	Evaluate if sign helps reduce speeds in the school zone.
ENGINEERING	Widen and build up roads. Get a sieve for gravel pit. Invest in an industrial chain saw for brush cutting. Improve drainage ditching and culverts on all roads (priority Beach Road). Investigate dust control options and cost.	Rehabilitate existing roads, improve drainage, and reduce dust emissions.	TTP (William)	Road Rehabilitation: 2024 Chain Saw: Spring 2019	Funding, planning, engineering design, and construction.	Develop a schedule and budget to track progress.
EMERGENCY SERVICES	Regular road grading to remove potholes (determine priority areas). Continue ice/snow removal (prioritize Beach Road).	Ensure roads are free from obstructions such as potholes and surfaces are not icy so emergency vehicles have safe access year round.	Village	On-going	Completion of scheduled road maintenance.	Use Council system to monitor road maintenance activities.

IMPLEMENTATION PLAN

EMPHASIS AREA #2			STRATEGIC LINKAGE			
ATV Trails						
	OBJECTIVES					
	Improve safety and accessibility of trail transportation.					
	SUCCESS INDICATORS					
	Trail upgrades including trail markers. Reduced number of search and rescue missions.					
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING & EVALUATION
EDUCATION	Continue to warn public about thin ice. Install permanent thin ice warning signs. Update safety contact information. Create trail maps.	Improve community awareness about thin ice, emergency contacts, and designated trail alignments.	Village	2020	Installation of signs. Creation and posting of maps.	Update signs and maps as needed.
ENFORCEMENT	Replace trail markers using community service (advertize the consequence for this).	Create a way to penalize speeding and also help install trail markers.	Community Effort	On-going	Adopt official community service system.	Evaluate system effectiveness at monthly Council meetings.
ENGINEERING	Maintaining, upgrading, and improving trails (mats preference).	Smooth trails for safer access.	TTP (William)	2029	Planning, design, funding, permitting, and construction activities.	Develop project budget and schedule to track progress.
EMERGENCY SERVICES	Install and inspect trail markers. Purchase equipment for search and rescue. Train search and rescue responders.	Improve trail navigability. Improve local capability for search and rescue emergency response.	Village	2024, On-going Training and Maintenance	Funding and acquisition of equipment. Completed training.	Update training as needed. Maintenance as needed.

IMPLEMENTATION PLAN

EMPHASIS AREA #3			STRATEGIC LINKAGE			
Boating			<ul style="list-style-type: none">▶ 3 reported boating accidents occurred within 20 miles of Twin Hills, resulting in 5 fatalities in 10 years.▶ Cultural and economic dependance on boating transportation for subsistence activities, yet there is a lack of boat launching infrastructure.▶ 58% of survey participants makred "lack of life vest use for boaters" as a high safety priority, making it the second highest community priority.			
OBJECTIVES						
Reduce the number and risk of boating accidents and fatalities in and around Twin Hills.						
SUCCESS INDICATORS						
Boat launch facility improvements, increased use of life jackets.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING & EVALUATION
EDUCATION	Poster on loaner board for benefits of life vest and instructions of use. Label vests with THVC. Class at school during spring break about boat safety.	Improve community knowledge about how to use and return rental life vests. Improve education about boating safety strategies.	Village, School	Spring 2020	Coordination with Kids Don't Float program. Scheduled safety classes.	Schedule future safety classes. Update signs and labels.
ENFORCEMENT	Post life vest law in public places.	Enforce life jacket use.	Village	Summer 2020	Flyers created and posted.	Update postings.
ENGINEERING	Construct a boat harbor, boat launch ramp, and barge landing bulkhead with a crane.	Improve safety and efficiency of boat launching/landing and barge loading activities.	TTP	2029	Planning, funding, design, permitting, and construction tasks.	Develop a budget and schedule to track progress.
EMERGENCY SERVICES	Obtain additional life vest for Kids Don't Float loaner board. Place a barrel at beach with big sticks that people could borrow for oars.	Improve access to emergency boating safety gear.	Village	2020	Life vests obtained.	Inspect and replenish stock of safety gear as needed.

IMPLEMENTATION PLAN

EMPHASIS AREA #4			STRATEGIC LINKAGE			
Pedestrians			<p>► 63% of survey participants marked "lack of streetlights" as a high priority, making it the community's top safety concern.</p> <p>► Complaints about stray dogs. Alaska Native children are hospitalized for dog bites a double the rate of U.S. children overall.</p>			
OBJECTIVES						
Improve visibility and safety of pedestrians.						
SUCCESS INDICATORS						
Increased use of reflectors, road improvements.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING & EVALUATION
EDUCATION	Hang "Bike-n-Walk Safely Alaska" posters around town. Continued education for kids about animal safety.	Improve awareness about importance of pedestrian visibility and dangers of stray dogs.	School, Village, community	On-going (education), ASAP (reflectors)	Posters printed and hung up. Announcements in school.	Evaluate additional educational strategies.
ENFORCEMENT	Enforce speed limits (word of mouth warnings).	Reduce speeding.	Community	On-going	N/A	Evaluate other enforcement strategies.
ENGINEERING	Electric intertie from Togiak. Maintain existing street lights (replace burnt out lights). Widen roads.	Ensure roads are well lit during darkness hours. Provide additional walking space for pedestrians.	TTP	2029 (widen roads), 2021 (electricity), On-going streetlight maintenance	Funding and construction for Togiak intertie. Coordinate road widening with utility projects.	Inspect streetlights annually.
EMERGENCY SERVICES	Provide reflectors for kids and pedestrians to place on clothing. Continue pet vaccinations.	Improve driver visibility of pedestrians. Reduce risk of diseases and infections caused by dog bites.	BBAHC (Vet), Division of public health, village	Yearly (vet), ASAP (reflectors)	Reflectors obtained and passed out.	Order more reflectors as needed.

IMPLEMENTATION PLAN

EMPHASIS AREA #5			STRATEGIC LINKAGE			
Young Drivers			<p>► Accounts of young kids speeding and driving recklessly and intoxicated, including one ATV crash across the river.</p> <p>► 47% of survey participants marked "lack of helmet use for ATVs and bicyclists" as a high priority.</p>			
OBJECTIVES						
Improve ATV driving behavior and driver's education for young drivers.						
SUCCESS INDICATORS						
Reduced offenses of speeding and impaired driving.						
4Es	ACTIONS	TARGET OUTPUT	RESPONISBLE PARTIES	DATE OF COMPLETION	PERFORMANCE MEASURES	MONITORING & EVALUATION
EDUCATION	Continue verbal intoxicated awareness effort. Host an ATV driver education course at High School Level.	Improve community knowledge about dangers of impaired driving and safe driving practices.	Village, School	Yearly (ATV course), On-going (communication)	Scheduled ATV courses.	Schedule future ATV courses.
ENFORCEMENT	Continue word of mouth enforcement to stop drinking and driving.	Reduce drinking and driving within the community.	Community, Village	On-going	Verbal warnings whenever someone is caught drinking and driving.	Evaluate other enforcement strategies.
ENGINEERING	Install permanent Kids at Play signs, where needed.	Reduce speeding near residential/school areas and improve driver awareness about high risk areas.	Village	2021	Signed ordered and installed.	Discuss sign effectiveness at monthly Council meetings.
EMERGENCY SERVICES	Participate in Alaska's helmet program to obtain helmets for kids (16 and under). Consider implementing Tribal ordinance to require helmet use.	Provide helmets for young drivers to protect them in the event of an accident.	Village	On-going (Helmets), 2020	Apply for helmet program. Helmets ordered, sized, and handed out.	Order new helmets, as needed.

APPENDIX D: RESOLUTION

**Twin Hills Village Council
PO Box 4061
Twin Hills, Alaska 99576
Phone: 907-525-4821
Fax: 907-525-4822**

Resolution 2019-13

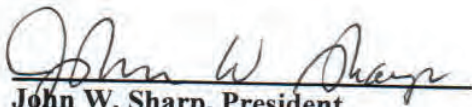
Twin Hills 2019-2024 Tribal Transportation Safety Plan

- WHEREAS, the Twin Hills Village hereafter "Tribe" is a federally recognized tribe; and
- WHEREAS, the Twin Hills Village Council 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 Twin Hills, Alaska; and
- WHEREAS, the Tribe has gained significant community input on identifying transportation safety concerns and priorities for Twin Hills through a public survey administered in October through November, 2018, and a public meeting held on November 5, 2018; and
- WHEREAS, the Tribe has identified and prioritized strategies to improve transportation safety throughout the community, and upon approval and adoption of the Twin Hills 2019-2024 Tribal Transportation Safety Plan, the Tribe also approves implementing the priorities identified in the plan.

NOW, THEREFORE, BE RESOLVED, that the Tribe hereby adopts the **Twin Hills 2019-2024 Tribal Transportation Safety Plan**.

CERTIFICATION

The Twin Hills Village Council has passed this resolution during a working meeting held on July 24, 2019 in Twin Hills, Alaska with a quorum present.


John W. Sharp, President


Debbie Snyder, Secretary/Treasurer

APPENDIX E: ANNUAL REVIEW DOCUMENTATION

(To be Added Annually)