



Alaska Department of Transportation & Public Facilities

Multimodal Transportation Planning & Programming in Alaska

Keep Alaska Moving through service and infrastructure

Introductions

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- Alaska DOT&PF
- Northern Region
- Transportation Planner



Ryan Cooper, M.S.

- Stantec
- Transportation Planner





Agenda

Transportation Planning 101

Highways: STIP: Statewide Transportation Improvement Program

- 2020-2023 STIP Announcement
- Kivalina Road

Regional Transportation Plans

- Northwest Alaska Transportation Plan

Aviation: Master Plans

- Valdez Airport Master Plan

Aviation Improvement Plans

- Noatak Airport

DOT&PF Planning 101



The Alaska Department of Transportation and Public Facilities (DOT&PF) has jurisdiction over:

5,629 center line miles / **11,766** lane miles
239 state airports
35 ports of call / **9** weigh stations
74 maintenance stations / **10** ferries / **837** DOT&PF owned bridges
2 international airports / **2** DOT&PF owned tunnels
\$9.9B in transportation asset infrastructure / **19** harbors / **7,372** pieces of state equipment and vehicles

The Alaska Statewide Transportation Improvement Program (STIP) is the state's four-year program for transportation system preservation and development. It includes interstate, state and some local highways, bridges, ferries and public transportation.

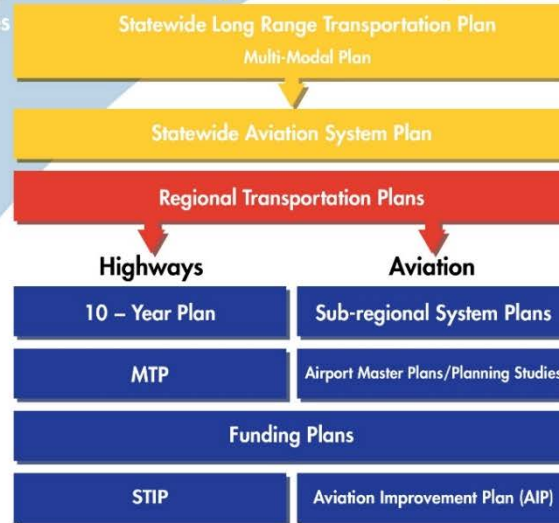
The Department nominates projects on the National Highway System and the Alaska Highway System based on the need to upgrade sections that are below standards, accomplish initial hard surfacing or pavement rehabilitation, and provide safety improvements or capacity increases.

The Department requests project nominations from the public for projects in the Community Transportation Program. A project qualifies under the Community Transportation Program if it is a local road, transit development or uses technology to improve traffic flow or safety.

Alaska Metropolitan Areas and other Transportation Improvement Programs: Under federal rules, a Metropolitan Planning Organization (MPO) is charged with preparing long-range transportation plans within its jurisdiction, and implementing the plans through TIPs, or Transportation Improvement Programs. An MPO is federally-designated transportation planning body for an urbanized area with a resident population over 50,000. In Alaska, Anchorage and Fairbanks are the only MPOs, known as AMATS (Anchorage Metropolitan Area Transportation Solutions) and FMATS (Fairbanks Metropolitan Area Transportation System) respectively. The STIP incorporates the projects selected by the MPO TIPs by reference. For more information visit <http://dot.alaska.gov/stwdplng/cip/stip/incorporations/index.shtml>.

The STIP also funds projects that will improve safety through the Highway Safety Improvement Program (HSIP) as well as projects that have air quality benefits in air quality non-attainment or maintenance areas through the Congestion Mitigation and Air Quality Program (CMAQ).

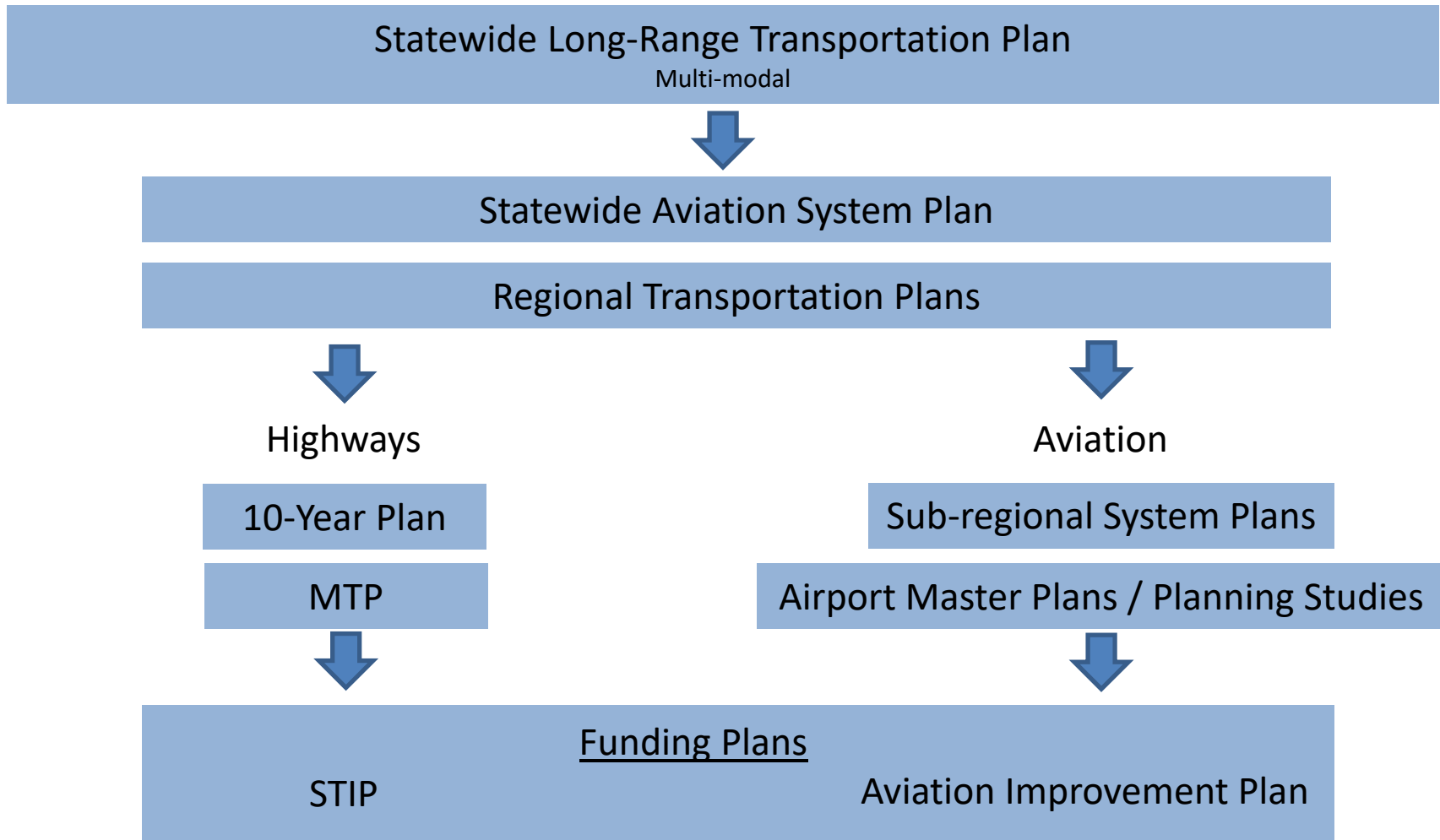
What is a regional transportation plan?



Harbors Program: Currently harbor projects are not eligible for federal aid funding through the US Department of Transportation. Harbor nominations are encouraged but will not be included on the STIP at this time. Harbor nominations will be kept on the Needs List for potential state or federal funding. Recent federal aid rule changes may provide funding in the future. For current funding, DOT&PF has a 50/50 matching Municipal Harbor Facility Grant program and a Corps of Engineers harbor program. Please visit http://dot.alaska.gov/stwdmno/ports/hbr_orgs.shtml.

Aviation Program: The STIP does not include aviation projects. Aviation project nominations are encouraged but will not be included on the STIP. Aviation nominations will be kept on the Needs List for potential state or federal funding. For more information about aviation projects, contact the regional aviation planner or visit <http://www.dot.state.ak.us/airport-portal.shtml>.

Transportation Planning

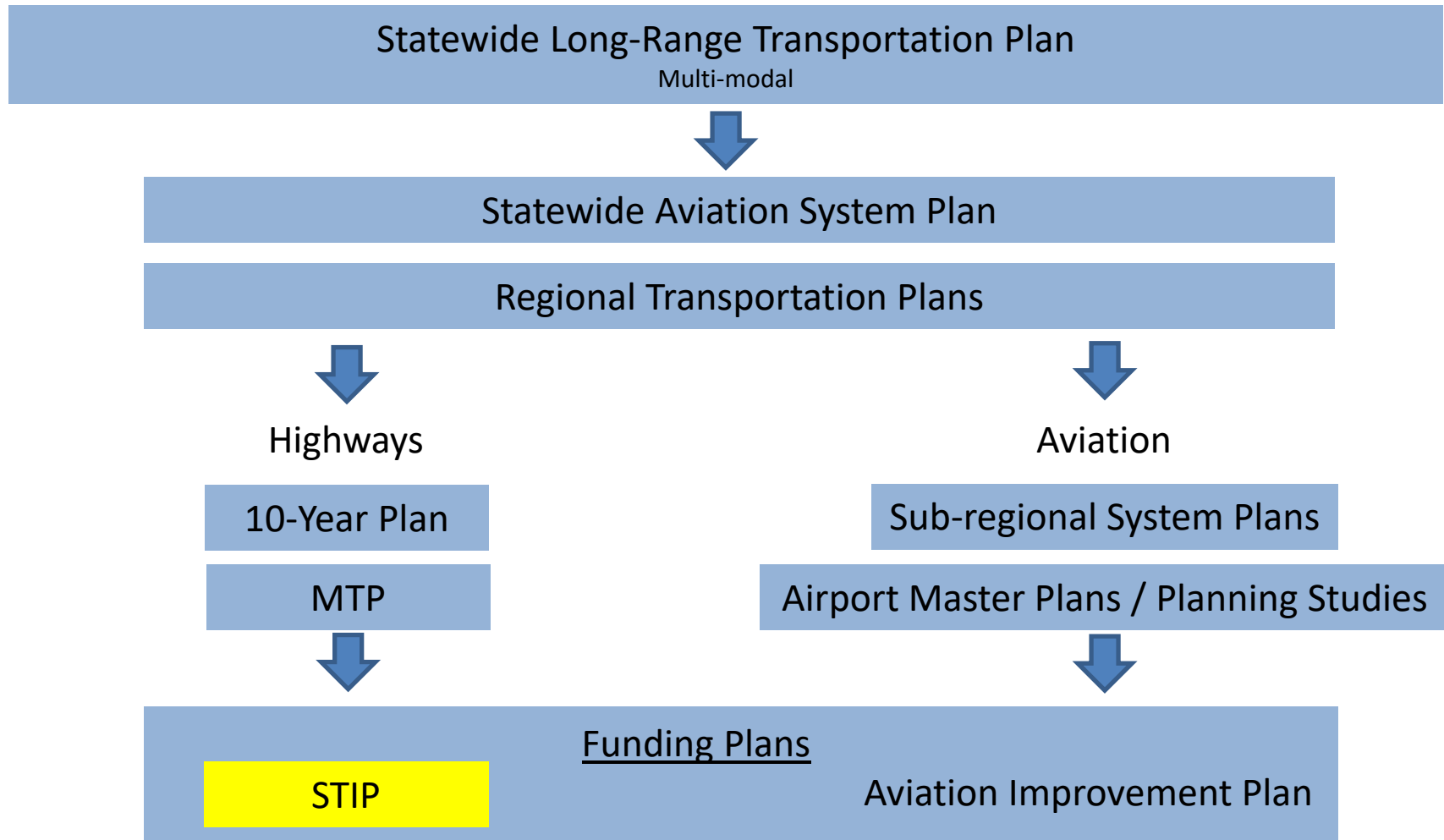




Alaska Department of Transportation & Public Facilities Statewide Transportation Improvement Program 2020-2023 STIP

Keep Alaska Moving through service and infrastructure

What is the STIP?





What is the STIP?

The **Statewide Transportation Improvement Program (STIP)** is a federally required program that must:

- Cover a period of at least four years.
- Include all Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) funded projects and regionally significant projects.
- Be fiscally constrained.
- Be consistent with other required transportation plans.
- Approved by FHWA and FTA.
- Follow a public involvement process.
 - New STIP: 45 day public comment period.
 - STIP Amendments: 30 day public comment period.

The STIP may:

- Be modified and/or amended due to changes in project schedules and estimates.
- Include non-federally funded projects.

State of Alaska
Department of Transportation & Public Facilities

2018-2021
Statewide Transportation Improvement Program (STIP)
Amendment 4
Approved September 16, 2019

STIP
Statewide Transportation Improvement Program

“Keep Alaska Moving through service and infrastructure.”
Integrity · Excellence · Respect

What STIP Tools are Available?

<http://dot.alaska.gov/stip/>

1. [Official STIP](#)
2. [Prior Amendments](#)
3. [STIP Search & Report](#)
4. [Project Viewer Map](#)
5. [Needs List Search](#)
6. [Subscribe to GovDelivery](#)

The screenshot shows the Alaska Department of Transportation and Public Facilities (DOT&PF) Statewide Transportation Improvement Program (STIP) website. The page features a dark blue header with the DOT&PF logo and the text "Alaska Department of Transportation and Public Facilities STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)". Below the header is a navigation menu with links for "Travel", "Business", "News and Social", "Projects", and "About Us". A large banner image of a moose on a road is displayed. Below the banner is a breadcrumb trail: "You are here: DOT&PF > Program Development > Capital Improvement Program > STIP". A yellow navigation bar contains links for "STIP Home", "STIP Plans", "Needs & Projects", "Resources/Maps", "Plans & Regulations", and "Contact". The main content area is titled "Welcome to the Alaska DOT&PF STIP" and includes a paragraph describing the STIP program. To the right, there is a "STIP News and Events" section with a yellow box for "2020 - 2023 Draft STIP Open for Public Comment" and a blue box for "Community Transportation Program Nominations to be Announced". Below this is a "How to Understand the STIP" section with a link to "STIP Project View Map". At the bottom, there is a "Search the STIP" section with a "Search the STIP" button and a "Subscribe to Receive News & Updates" button. Numbered callouts (1-6) are placed over the page to indicate the location of the tools listed in the adjacent list.

1. [Official STIP](#)

2. [Prior Amendments](#)

3. [STIP Search & Report](#)

4. [Project Viewer Map](#)

5. [Needs List Search](#)

6. [Subscribe to GovDelivery](#)



How to Read the STIP

Need ID: 19119 Name: Enhanced Mobility for Seniors and Individuals With							Ph	Fund	FFY20	FFY21	FFY22	FFY23	After 2023
Program	Region	2013	Place	Highway	Primary	Bridge #s	9	3PF	100,128	100,128	105,134	105,134	
REQD	H	99	Statewide		Transit		9	5310	248,993	248,993	261,443	261,443	
Description: FTA Section 5310 monies to be used for the purchase of rides and vehicles for eligible clients and agencies throughout rural and small urban Alaska.							9	STP	318,400	318,400	318,400	318,400	
							Totals:		667,521	667,521	684,977	684,977	684,977

The STIP Intro and the Fund Code Definitions provide insight on how to read the STIP. Each approved STIP includes these informational documents.

Projects are identified by a Need ID and name, then list descriptive information, and show by federal fiscal year planned funding according to phase of work, and funding source.

2020-2023 Alaska Statewide Transportation Improvement Program
 Alaska Department of Transportation & Public Facilities
 Division of Program Development and Statewide Planning

Introduction to the STIP
 The Alaska Statewide Transportation Improvement Program (STIP) is the state's four-year program for transportation system preservation and development. Federal statutes (23 USC 135) require that in order to use federal transportation funding, the state must develop a STIP. The STIP must cover all surface transportation improvements.

Project Programming in the STIP
 The STIP is made up of projects, divided into phases, scheduled according to the time estimated to accomplish each phase and the funding needed to complete it. Each funding source has different requirements or objectives, so the final selection of projects for the STIP depends on the available funding.

Multi-Phase, Phase 0 – This phase identifies programs that have multiple projects and for individual projects where the phases of work required for the improvements have yet to be defined. Examples include;

- Anchorage Metropolitan Area Transportation Solutions (AMATS) and the Fairbanks Area Surface Transportation (FAST) Community Transportation Program Allocations,
- Recreational Trails Program,
- Transportation Alternative Program,
- Pavement and Bridge Rehabilitation Program,
- Highway Safety Improvement Program, and the
- Alaska Railroad and Public Transit System Programs.



2020-2023 Public Comment

Public Comment Period: February 4 – March 20, 2020

For all comments please include your name, organization (if applicable), and the project name. The STIP section accepts, reviews, and responds (when appropriate) to all comments received. We kindly ask that you please keep comments courteous and professional as they will be posted on the DOT&PF STIP website.

Comment by email

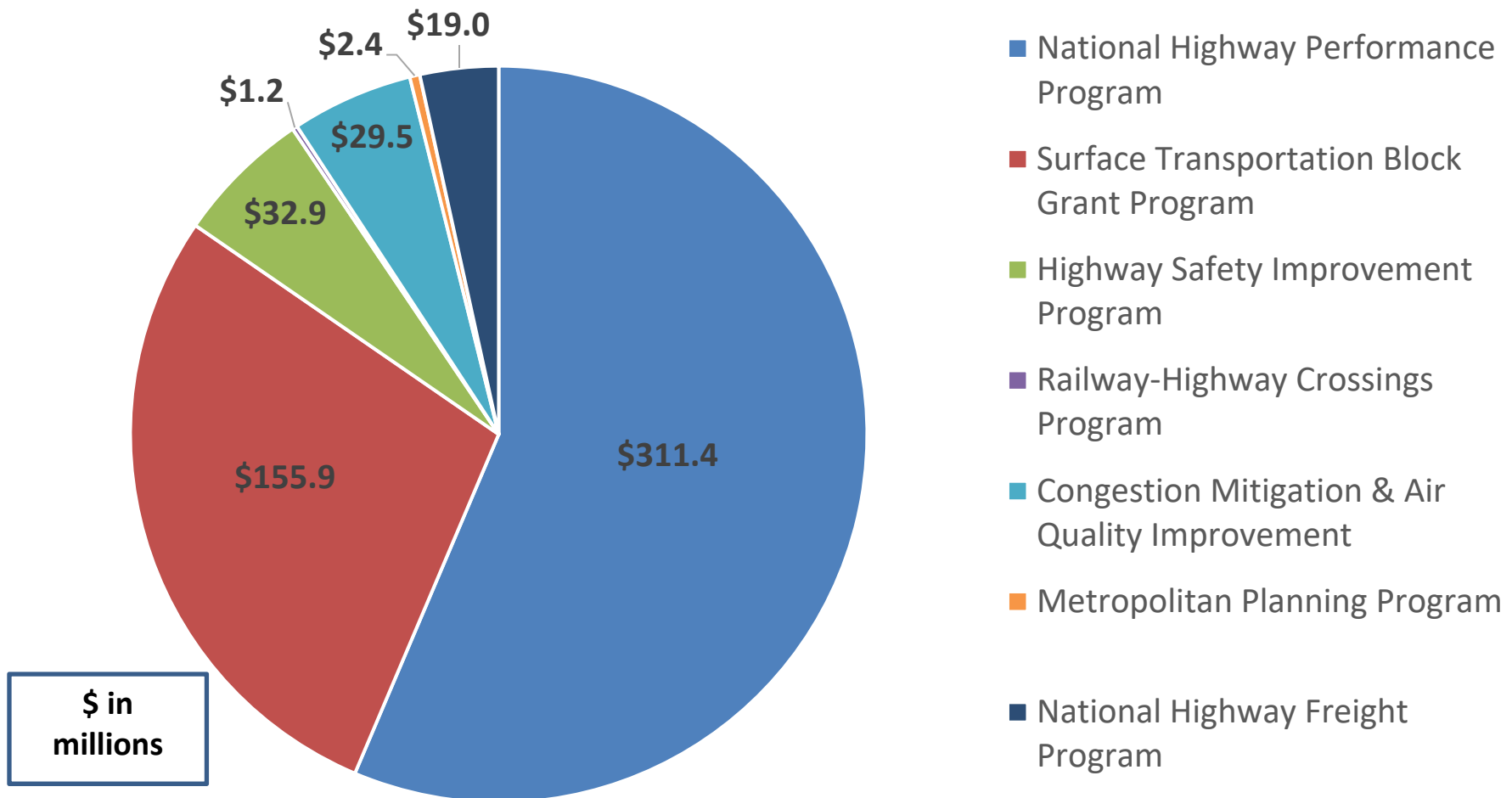
dot.stip@alaska.gov

Comment by mail

AK Department of Transportation & Public Facilities
Division of Program Development, STIP Office
PO BOX 112500
Juneau, AK 99811-2500

Call the STIP Manager if you have questions at (907) 465-2744. Persons with a hearing impairment can contact the department by dialing Alaska Relay at 711 and asking the communication assistant to call the telephone number listed. We are also able to offer, upon request, reasonable accommodations for the special needs related to disabilities.

2020 FAST ACT Funding for Alaska



Obligation limitation reduces the amount of funding available. Currently the Federal government is operating under a continuing resolution for FFY 20.



Funding & Eligibility

Each funding type has strict eligibility requirements:

- **National Highway Performance Program (NHPP)** funding is for routes on the National Highway System (NHS). These routes are primarily state owned and projects are selected with an emphasis on safety, pavement condition, bridge condition, traffic, and other unique benefits.
- **Surface Transportation Program (STP)** funding is the most flexible and availability is low. STP funding is used for required programs and projects, the Community Transportation Program (CTP), and the Alaska Highway System. The two Metropolitan Planning Organizations (MPOs): FAST and AMATS each receive and manage a CTP allocation.
- **Safety funding** is available for projects that are data driven and focus on reducing major injuries and fatalities using proven solutions. The Highway Safety Improvement Program's (HSIP) projects must adhere to an additional strict set of guidelines.



National Highway Performance Program

- The FAST Act requires performance measures and targets to be established for the NHS related to safety, infrastructure condition, congestion reduction, system reliability, and freight movement.
 - The department has begun to evaluate and use data to score NHS projects. Scores were used to evaluate existing projects in 2017 and new starts in 2018; however, the new starts have not yet been programmed due to lack of available funding.
 - An NHPP Performance Based Project Selection Criteria research project is underway to develop a more robust and informed criteria for future project scoring.

NHS Evaluation Standards

Safety

Pavement Condition

Bridge

Traffic

Project exhibits UNIQUE benefits or needs NOT OTHERWISE RATED.



Community Transportation Program

The Community Transportation Program (CTP) is a competitive program, funded with STP funds, for projects that serve local transportation needs.

- Projects are nominated and evaluated regionally and statewide.
- Routes may be locally or state owned and are typically *not* on the National or Alaska Highway Systems (NHS/AHS) (i.e. serve local needs).
- The 2020-2023 Project Evaluation Board (PEB) met on January 8-9, 2020.
- Project awards will be announced March 2020.
- Projects which scored highly enough will be programmed into 2020-2023 STIP Amendment 1 for the initial design phase in Federal Fiscal Years (FFY) 2020 and 2021.

Call for projects	February 2019
Project submittal due	September 15, 2019
ADOT&PF regional review and scoring	October 2019
ADOT&PF statewide PEB final project selection	January 8-9, 2020
Announce project awards	March 2020
Initiate project agreement between ADOT&PF and sponsoring agency	Upon PEB approval and prior to project start

Community Transportation Program

- Call for projects for the 2020-2023 STIP was for \$50 Million of STP funding.
- Applications were scored by two criteria:
 - Remote: **not** connected to road system by road or ferry.
 - Urban / Rural: connected to road system by road or ferry.
- Both Remote and Urban / Rural competed together for available funds.

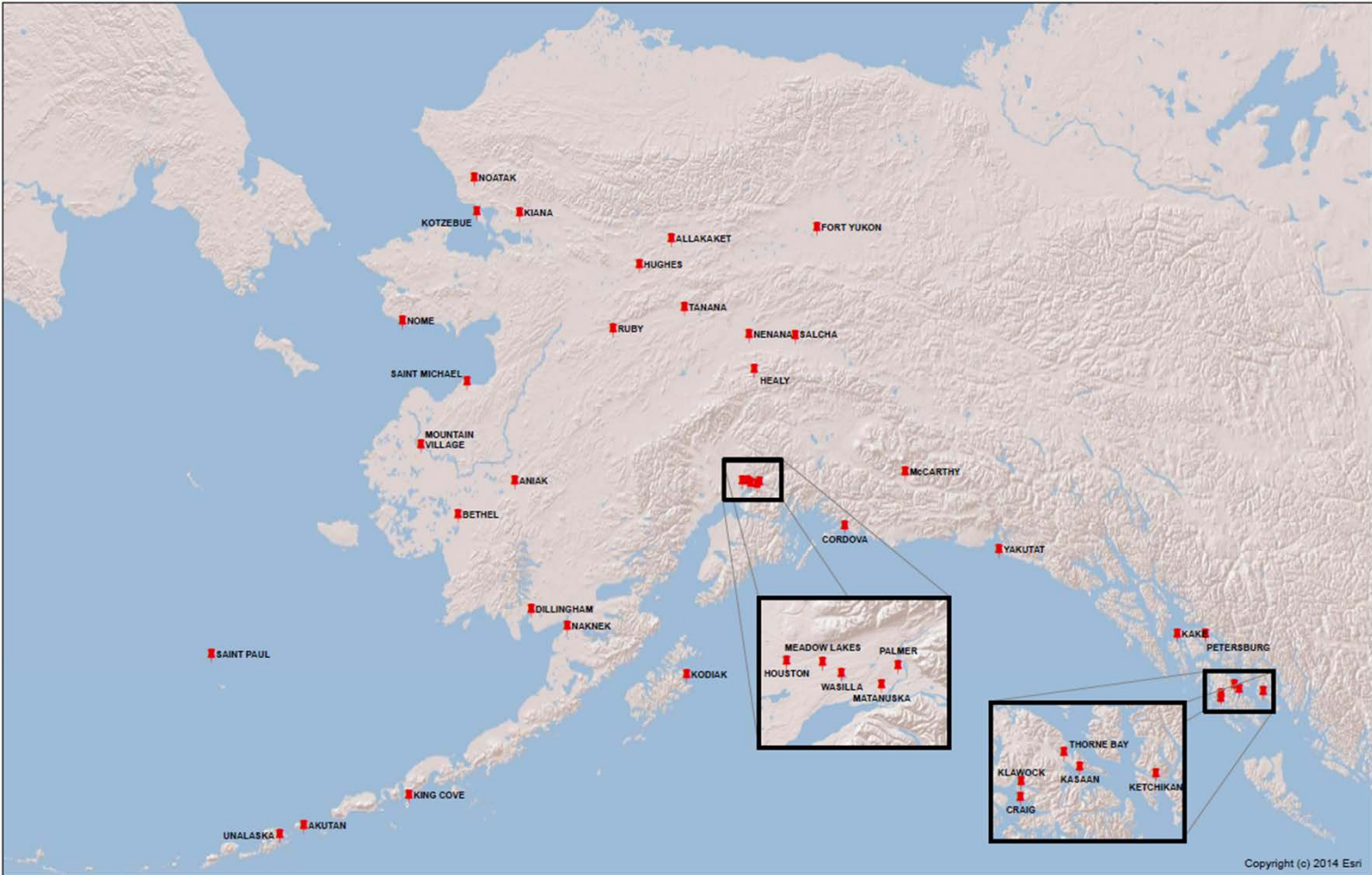
A total of 46 project applications were submitted; 23 projects advanced to the PEB.





Community Transportation Program

Communities that submitted project applications





Transportation Alternatives Program

The Transportation Alternatives Program (TAP) is a competitive program, funded with Transportation Alternatives (TA) funds (set-aside of STP).

- TA funds are eligible to be used for a variety of smaller-scale transportation projects such as pedestrian and bicycle facilities, recreational trails, safe routes to school, community improvements such as historic preservation and vegetation management, and environmental mitigation related to storm water and habitat connectivity.





Transportation Alternatives Program

- FFY19 Call For Projects was for \$12 Million (3+ years of funding):
 - Rural (population 5,000 or less) = \$2,640,000
 - Urban (population 5,000 to 200,000) = \$2,040,000
 - Statewide (any area) = \$7,320,000
- Project nominations were accepted from November 1, 2018 – January 31, 2019 and awards were announced in May of 2019.
- Of the 12 project applications submitted, only two projects did not receive funding. Project awards list available: <http://dot.alaska.gov/stwdplng/atap/>

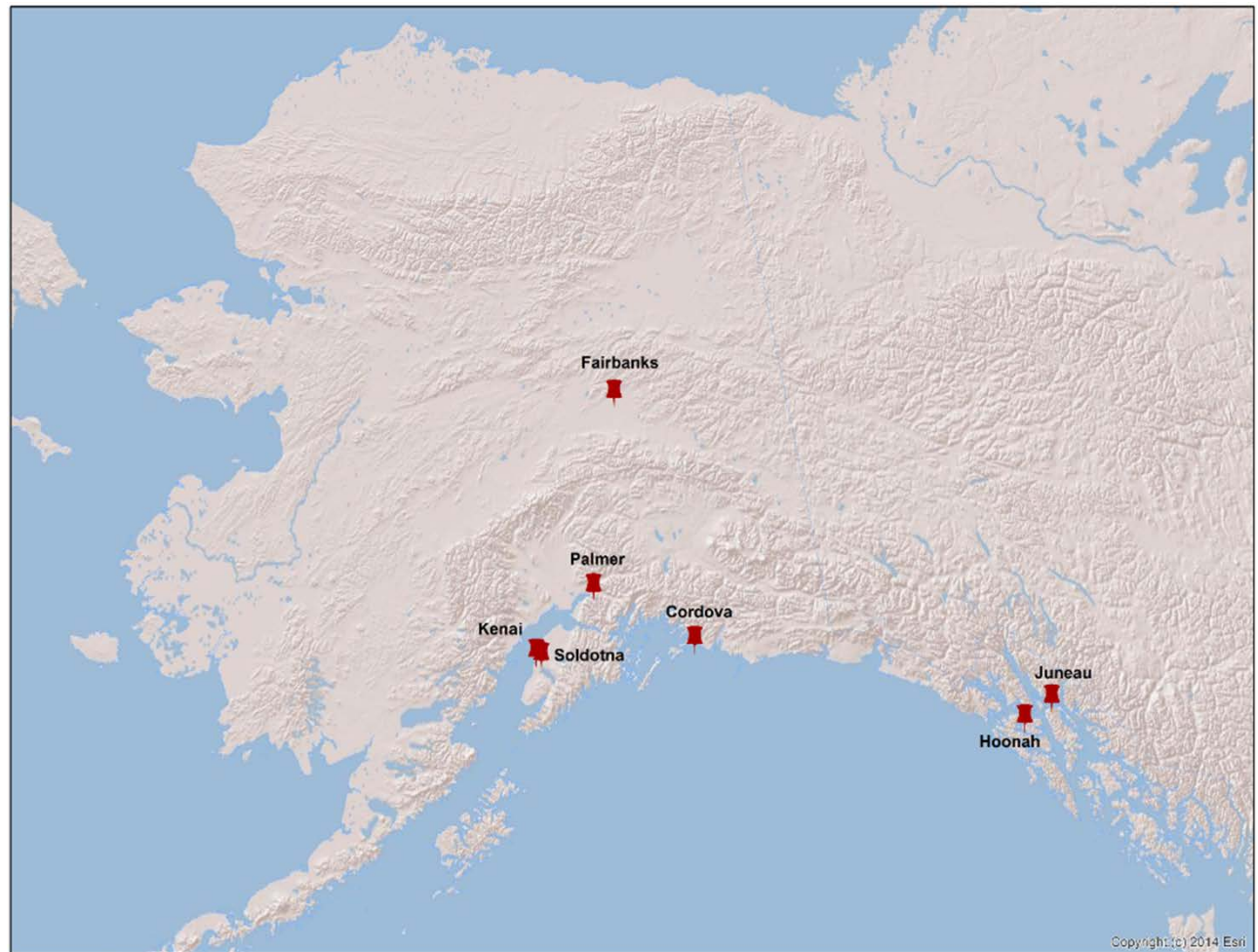




Transportation Alternatives Program

Positively impacted Alaskan communities:

- Cordova
- Fairbanks
- Hoonah
- Juneau
- Kenai
- Palmer
- Soldotna



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Contact Information

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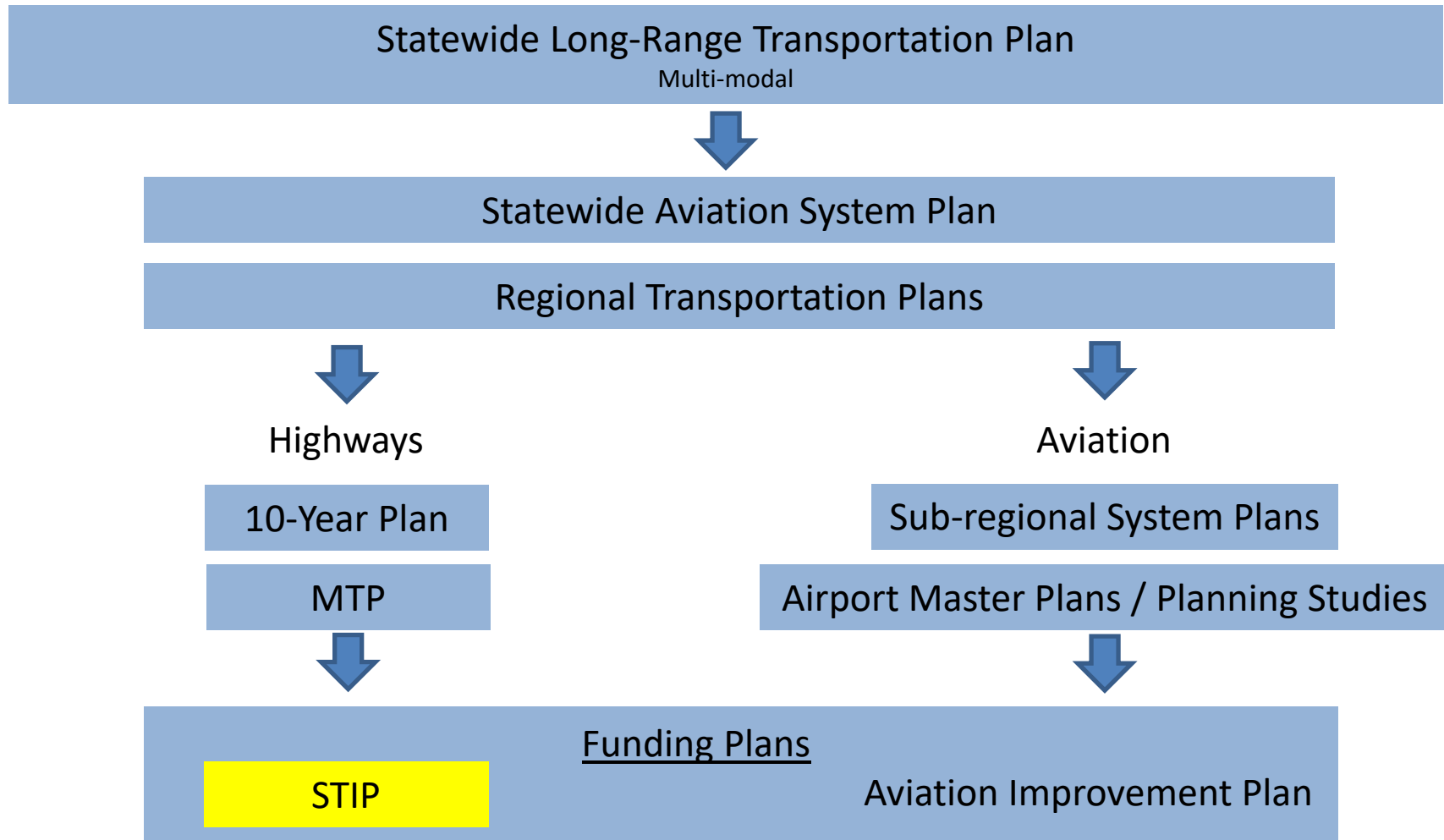
david.post@alaska.gov



Alaska Department of Transportation & Public Facilities Kivalina Road

Keep Alaska Moving through service and infrastructure

STIP Project Example



Kivalina Road

Overview

- Storm Threat
- Evacuation Road
- Causeway
- Marine Mammal
- Material Site
- Fisheries



Existing Conditions

Overview

- Storm Threat
- Christmas 2019
 - Storm Damaged Homes
- October 2007
 - Storm waves overtop island
 - Helicopter Evacuation
- Emergency evacuation route
- Planning Problem



Planning Alternatives

Local Engagement

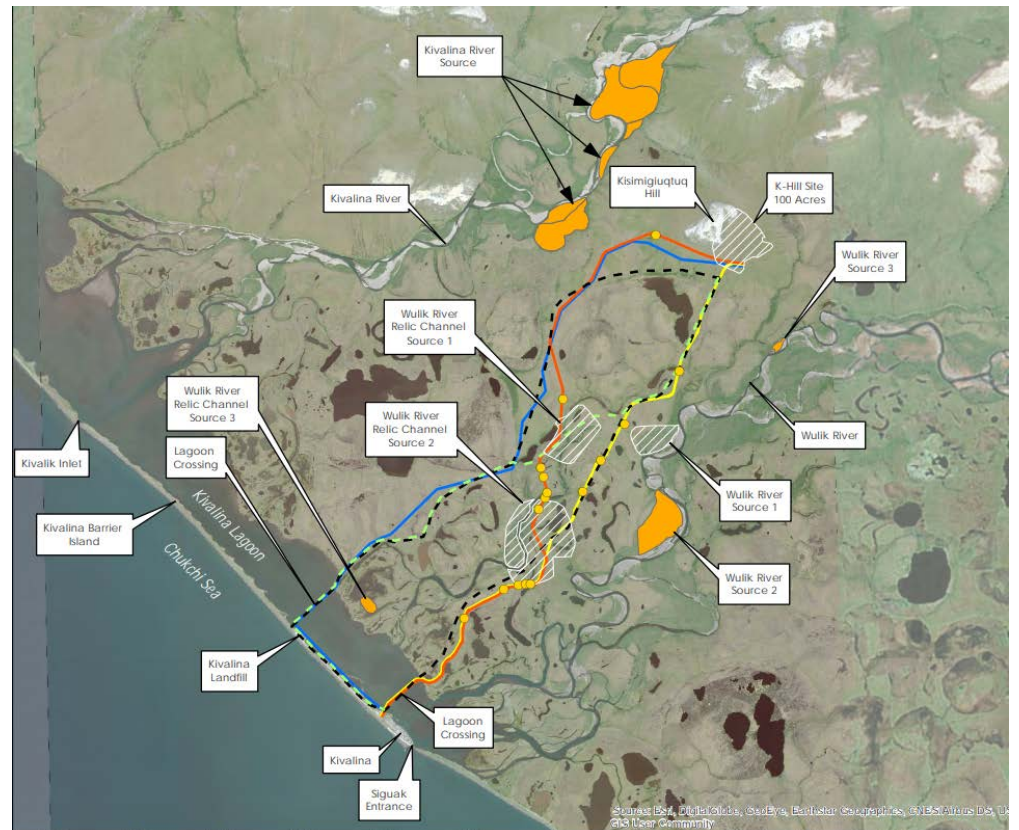
- Evacuation Road
- Route to Higher Grounds
- Multiple Alternatives

Subsistence Concerns

Financial Feasibility

How to increase quality of public engagement?

- Video



Planning Alternatives

Public Comments

- Cultural Activities
- Avoid
 - Berry Picking
 - Caribou Harvest
 - Fishing
 - Marine Mammal





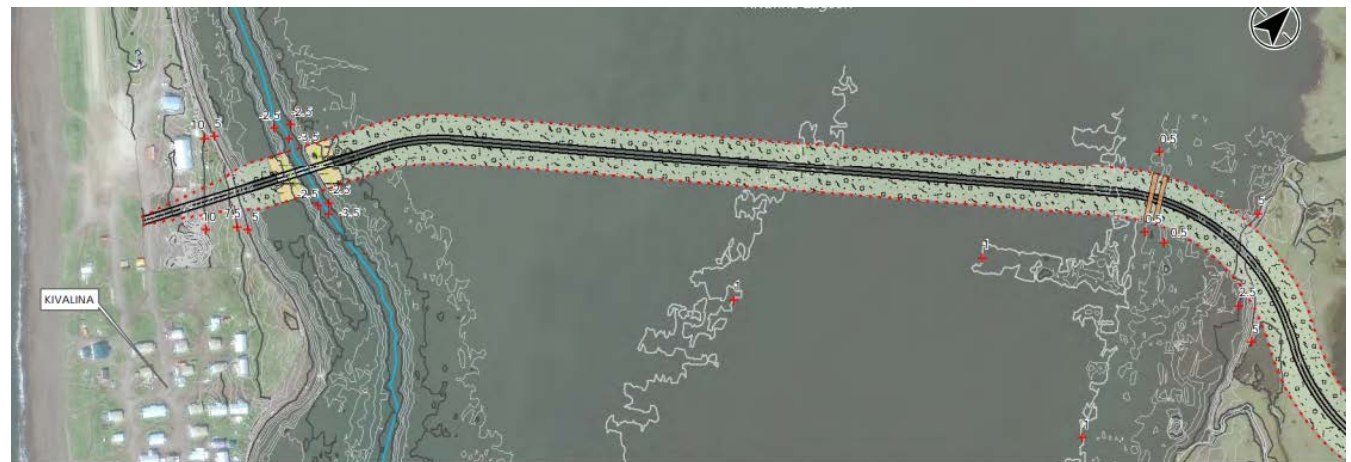
Causeway

Shallow lagoon

- Single Deep Channel

Technical Planning

- US Coast Guard: Boat Passage
- Hydrology: Prevent Damming
- Fisheries
- Marine Mammals (next slide)





Causeway

Marine Mammals

- Single Deep Channel

Technical Planning

- Locals raise marine mammal concerns
- Seal Feeding
 - Lagoon Entrance
 - Mouth of Wulik River
- Pile Driving (Initial)
- No Pile Driving (Final)

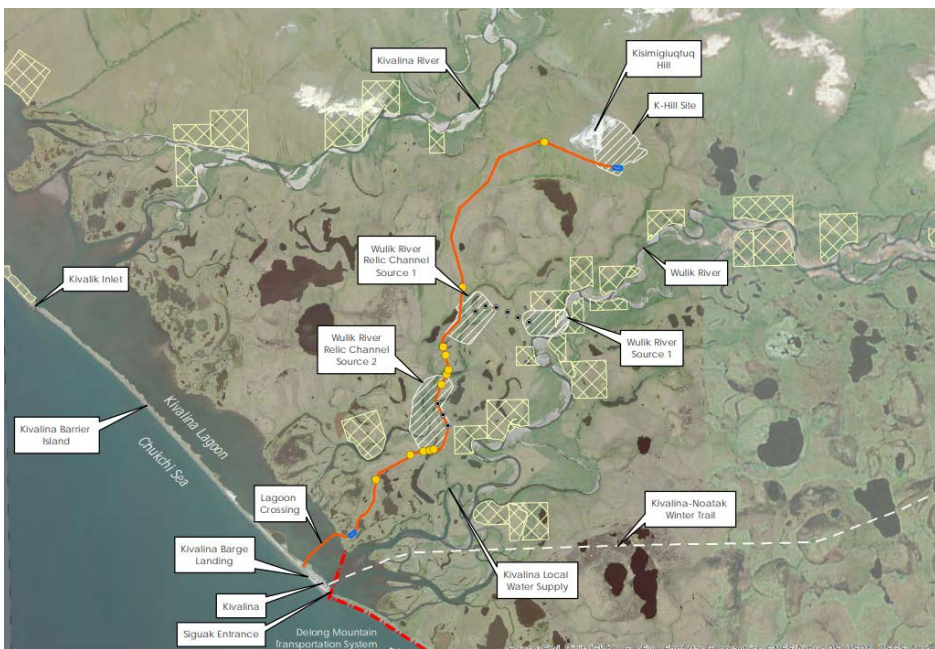




Fisheries

Dolly Varden Fisheries

- State Records
- Subsistence Fisheries
- Material Site Prioritization



Kivalina Road

Planning Review

- Evacuation Need
- Local Planning
 - Alternative Development
- Environmental
 - Causeway
 - Marine Mammal
 - Fisheries





Alaska Department of Transportation & Public Facilities

Northwest Alaska Transportation Plan

Keep Alaska Moving through service and infrastructure

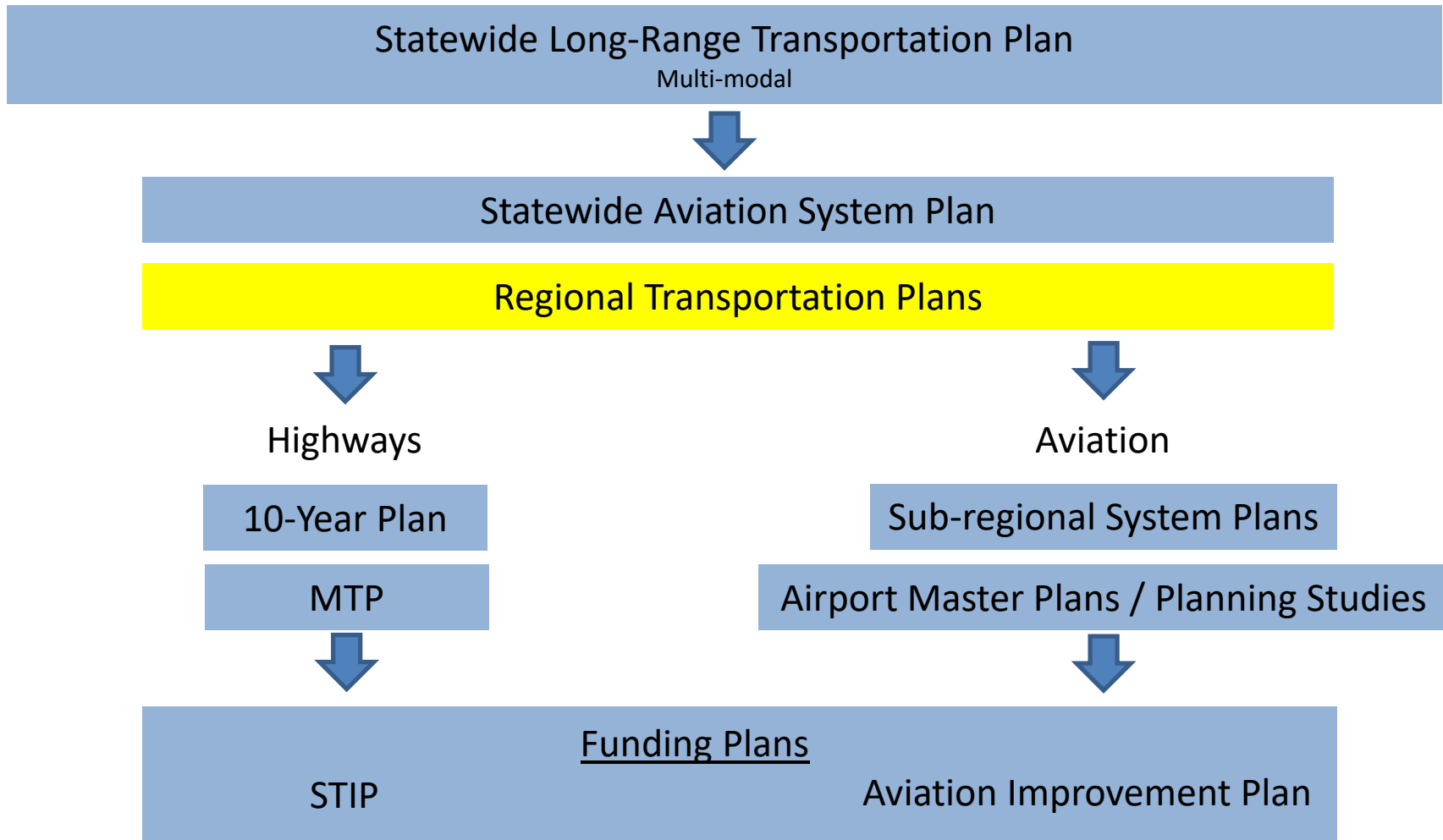


Overview

- What is a regional plan?
- What are the plan's goals and objectives?
- What issues have been identified?
- What actions can we take?
- Did we capture your community's needs?
- What's next?



What is a Regional Plan?



What does the plan cover?

- All modes of transportation
- Forecasts + Analysis
- Recommendations
- Funding
- Implementation



How can I use the plan if I'm a...

Resident

Use as an **advocacy tool** to improve quality of life in your community

Tribal Leader

Guide **decision-making** on community investments

Help determine funding **efficiencies and partnerships**

Community Leader

Guide **decision-making** on policies and investments

Use to **nominate capital projects** to agencies

Agency

Inform **regional priorities** and guide agency studies and development

Help determine funding **efficiencies and partnerships**

Grant Writer

Use to **demonstrate area-wide support** when applying for grants

Business Owner

Tool for gauging projected **economic activity** and opportunities for **growth**

NWATP Project Area



Sub Regions:

- North Slope Borough
- Northwest Arctic Borough
- Middle Yukon River
- Seward Peninsula /Norton Sound

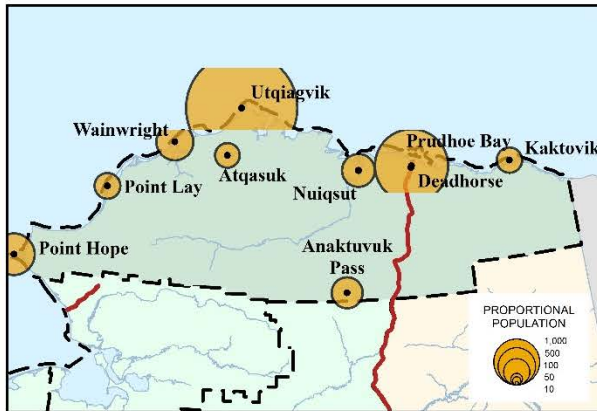
Northwest Alaska by the Numbers

- 225,000+ square miles
- 30,127 people
- 1,578 miles of public roads
- 60 airports
- 54 communities
- Thousands of miles of trails



North Slope Borough

Regional Population



Infrastructure

Airports are in 8 of 8 communities
Harbors or Docks are in 4 of 8 communities
Ferries are in 0 of 8 communities
Barge Landings are in 6 of 8 communities
Road Connections are in 0 of 8 communities
Coasts are in 5 of 8 communities

Erosion Issues are in 6 of 8 communities
Dust Problems are in 3 of 8 communities

Project Needs Identified 99
of Surface Needs 75
of Aviation Needs 19
of Marine Needs 3
of Other Needs 2

Overview

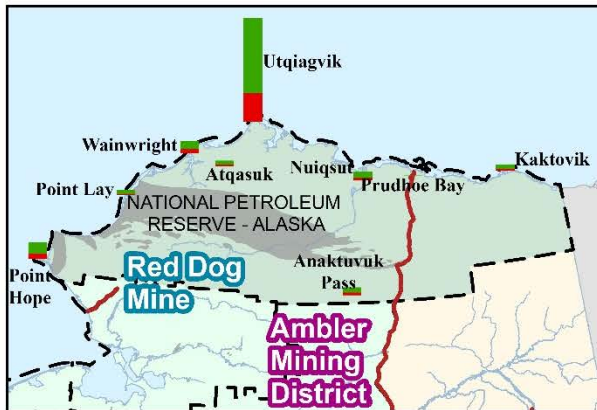
Total # of Communities 8
Total Population 7,927
Population Change ('00-'17) +560
Net Migration ('00-'17) -2,049
Total Employed 3,343
Total Not Employed 1,325

Total Households 2,018
Ave. Household Size 3.93
Total Households in Poverty 179
Total Children in Poverty 430
Total Seniors in Poverty 6

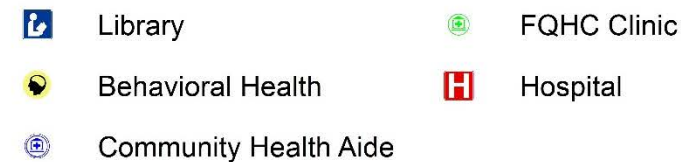
Average Incorporation Date 1967
Total Land in Communities 77.60 sq mi

of ANCSA Regional Corporations 1
of Federally Recognized Tribes 8
of Health Care Providers 2
of Climate Regions 1
of Libraries 8

Regional Employment



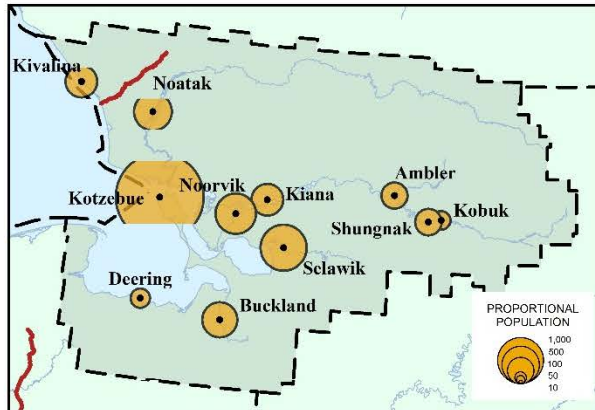
Regional Services



Libraries are in 8 of 8 communities
Post Offices are in 5 of 8 communities
Education Powers are in 0 of 8 communities
Planning and Land Use Powers are in 7 of 8 communities

Northwest Arctic Borough

Regional Population



Infrastructure

Airports are in 11 of 11 communities
Harbors or Docks are in 10 of 11 communities
Ferries are in 0 of 11 communities
Barge Landings are in 10 of 11 communities
Road Connections are in 0 of 11 communities
Coasts are in 4 of 11 communities

Erosion Issues are in 8 of 11 communities
Dust Problems are in 5 of 11 communities

Project Needs Identified 153
of Surface Needs 112
of Aviation Needs 28
of Marine Needs 4
of Other Needs 9

Overview

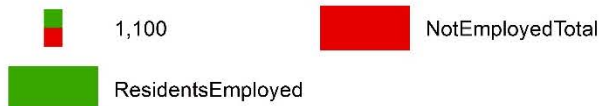
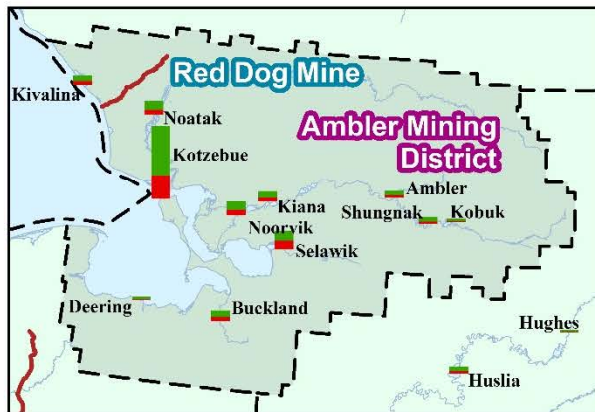
Total # of Communities 11
Total Population 7,482
Population Change ('00-'17) +585
Net Migration ('00-'17) -1,849
Total Employed 3,080
Total Not Employed 1,718

Total Households 1,888
Ave. Household Size 3.96
Total Households in Poverty 301
Total Children in Poverty 809
Total Seniors in Poverty 49

Average Incorporation Date 1967
Total Land in Communities 72.90 sq mi

of ANCSA Regional Corporations 1
of Federally Recognized Tribes 11
of Health Care Providers 1
of Climate Regions 1
of Libraries 3

Regional Employment



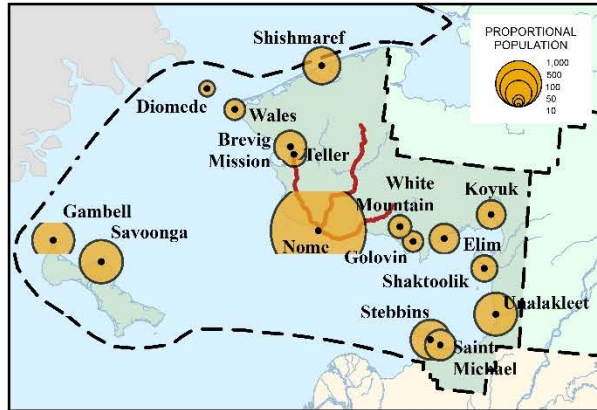
Regional Services



Libraries are in 3 of 11 communities
Post Offices are in 11 of 11 communities
Education Powers are in 0 of 11 communities
Planning and Land Use Powers are in 10 of 11 communities

Seward Peninsula/Norton Sound

Regional Population



Infrastructure

Airports are in 15 of 16 communities
Harbors or Docks are in 6 of 16 communities
Ferries are in 0 of 16 communities
Barge Landings are in 16 of 16 communities
Road Connections are in 0 of 16 communities
Coasts are in 15 of 16 communities

Erosion Issues are in 15 of 16 communities
Dust Problems are in 7 of 16 communities

Project Needs Identified 233
of Surface Needs 181
of Aviation Needs 42
of Marine Needs 7
of Other Needs 3

Overview

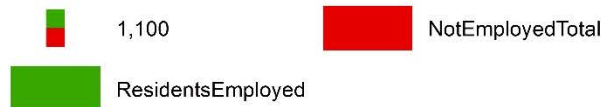
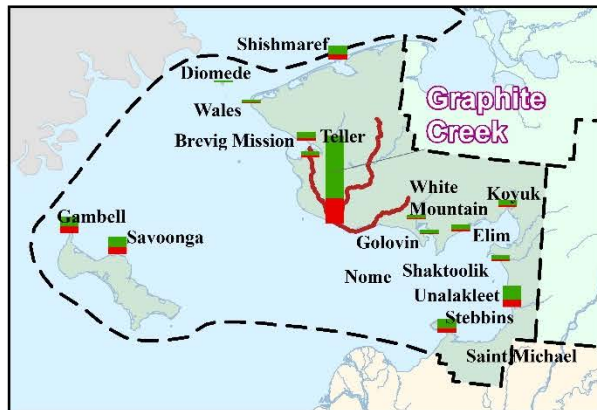
Total # of Communities 16
Total Population 9,832
Population Change ('00-'17) +782
Net Migration ('00-'17) -1,597
Total Employed 4,248
Total Not Employed 1,923

Total Households 2,783
Ave. Household Size 3.53
Total Households in Poverty 480
Total Children in Poverty 1,095
Total Seniors in Poverty 75

Average Incorporation Date 1964
Total Land in Communities 116.00 sq mi

of ANCSA Regional Corporations 1
of Federally Recognized Tribes 16
of Health Care Providers 1
of Climate Regions 1
of Libraries 2

Regional Employment



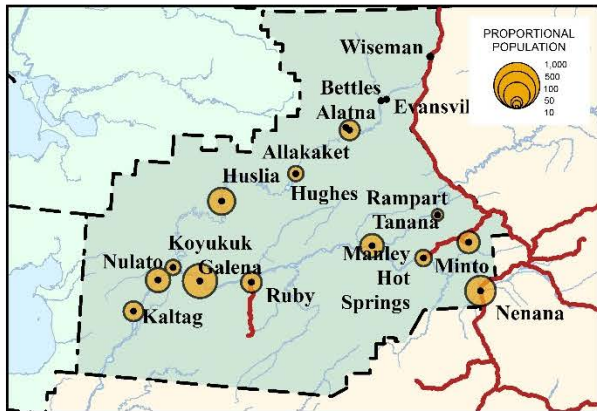
Regional Services



Libraries are in 2 of 16 communities
Post Offices are in 14 of 16 communities
Education Powers are in 1 of 16 communities
Planning and Land Use Powers are in 16 of 16 communities

Middle Yukon River

Regional Population



Infrastructure

Airports are in 13 of 15 communities
Harbors or Docks are in 5 of 15 communities
Ferries are in 0 of 15 communities
Barge Landings are in 10 of 15 communities
Road Connections are in 3 of 15 communities
Coasts are in 0 of 15 communities

Erosion Issues are in 12 of 15 communities
Dust Problems are in 13 of 15 communities

Project Needs Identified 161
of Surface Needs 139
of Aviation Needs 22
of Marine Needs 0
of Other Needs 0

Overview

Total # of Communities 15
Total Population 2,644
Population Change ('00-'17) -500
Net Migration ('00-'17) -1,835
Total Employed 1,456
Total Not Employed 704

Total Households 1,000
Ave. Household Size 2.64
Total Households in Poverty 90
Total Children in Poverty 198
Total Seniors in Poverty 39

Average Incorporation Date 1966
Total Land in Communities 140.00 sq mi

of ANCSA Regional Corporations 1
of Federally Recognized Tribes 15
of Health Care Providers 2
of Climate Regions 1
of Libraries 3

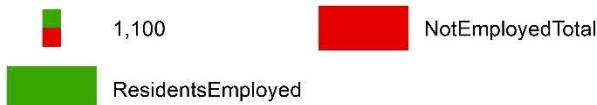
Regional Employment



Regional Services



Libraries are in 3 of 15 communities
Post Offices are in 12 of 15 communities
Education Powers are in 3 of 15 communities
Planning and Land Use Powers are in 11 of 15 communities



Guiding Principles

- Community Engagement
- Improve Safety
- Reduce Impacts to the Natural Environment
- Mitigate Impacts
- Protect Subsistence Use
- Responsible Development
- Support Locally Driven Projects
- Be Responsive to Community Needs
- Project Delivery Efficiency

Goals



Adaptability/Flexibility



Support Infrastructure Improvements



Community Connectivity



Enhance Usage



Access to Basic Services



Economic Development

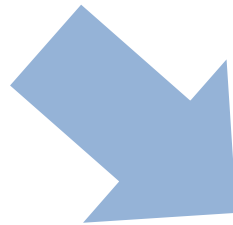
Outcomes

- Reduce cost of energy
- Reduce cost of living
- Reduce project costs
- Reduce project delays
- Increase reliability of infrastructure
- Ensure capacity to meet existing and future demand levels
- Increase connectivity
- Increase integration of land-use, resource development, and transportation planning

Issues & Actions

GOALS

Provide access to basic services | Improve community connectivity | Enhance transportation system usage | Support transportation infrastructure improvements | Enhance system adaptability & flexibility | Support transportation improvements to promote economic development

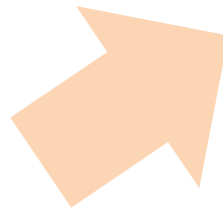


ISSUES & ACTIONS

Capital projects | Maintenance | Data collection | Education | Safety | Coordination

TRENDS & RISKS ADDRESSED

Population/Economic Growth | Climate Change | Arctic Tourism | Industrial Development | Arctic Marine Traffic



Aviation – Issues & Actions

Issue	Action
Aviation support infrastructure	Market supply/demand Leasing opportunities
Navigation improvements	Weather reporting Ongoing maintenance
Safety/security	Wildlife hazard assessments Outreach
Airport relocations	In-depth studies
Dust control	Palliatives Outreach + best practices
Runway conditions	On-going maintenance Capital projects

Roads/Trails – Issues & Actions

Issue	Action
Dust control	Palliatives Outreach + best practices
Trail marking/shelters/maps	Trail-marking program Coordination
Evacuation roads	Evaluate
Community connections (surface)	Evaluate
Maintenance	Deliver service
Snow/ice roads	Support community-led opportunities
Dalton Highway significance	Evaluate + mitigate vulnerabilities Upgrade
Safety	Collect data Education

Marine/Riverine - Issues & Actions

Issue	Action
Barge landings/mooring	Coordinate + support
Changing subsistence fleet	Evaluate harbors
Arctic port development	Support
Cruise ship activity	Evaluate needs
Increasing marine traffic	Monitor

Global – Issues & Actions

Issue	Action
Climate change	Identify at-risk infrastructure Mitigate effects
Funding/project coordination	Task forces/work groups
Lack of data	Coordinate efforts
Equipment sharing	Policy changes
Changing technology	Monitor and evaluate
Safety education	Participate in programs

Emerging Issues/Trends

- Changing climate
 - Erosion, flooding, permafrost melt, etc.
- Increasing Arctic marine traffic
- Arctic tourism
- Inter-community connections
- Capital Funding
- Maintenance & Operations



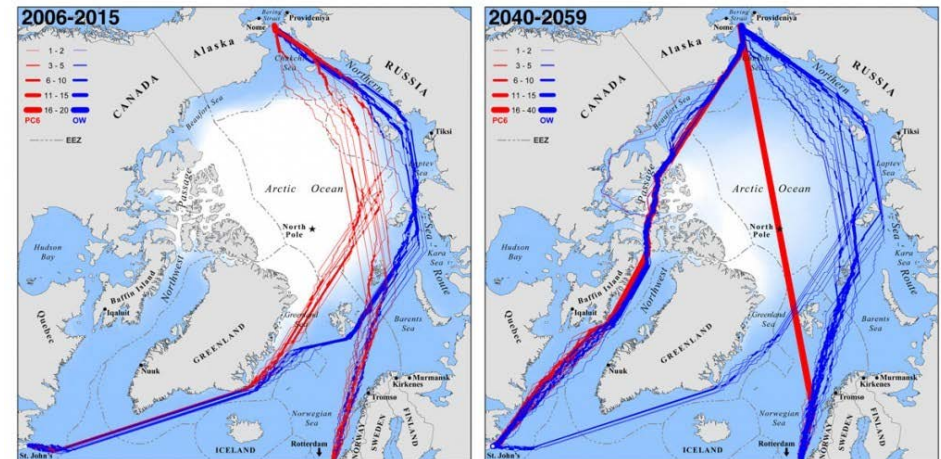
Increasing Arctic Marine Traffic



Arctic Monitoring and Assessment Program (AMAP) Arctic Boundary



Arctic Northwest Passage Routes



Current Ice Coverage & Predicted Change in Ice Pack with Predicted New Routes

Arctic Tourism

CHART 5.1 - Regions Visited (Day or Overnight)
All Visitors, 2006, 2011, and 2016

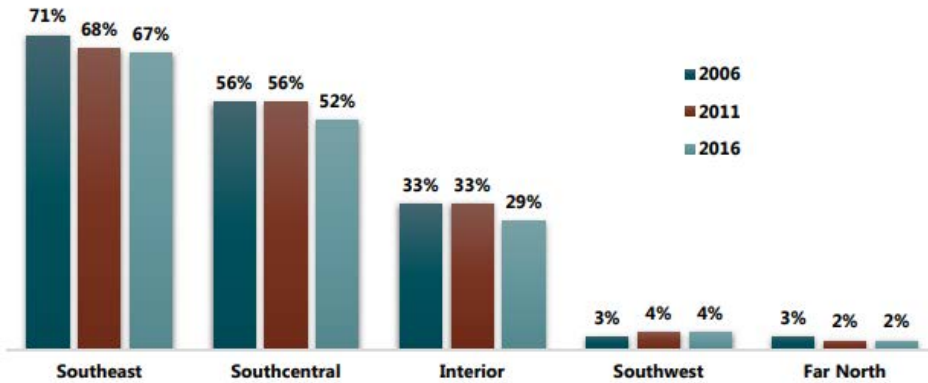


CHART 5.5 - Average Number of Nights By Region, All Visitors, 2006, 2011, and 2016
(Base: Those who overnighted in each region)

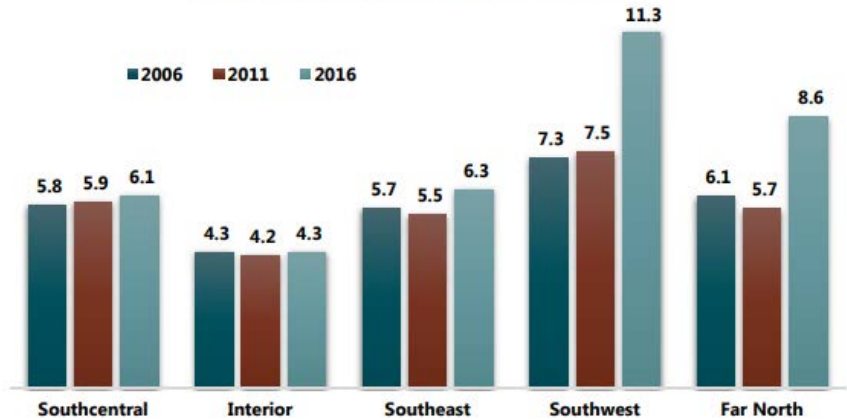


CHART 7.15 - Visitor Spending in Alaska, Per Person, by Category
Excluding Transportation to/from Alaska
All Visitors, 2006, 2011, and 2016

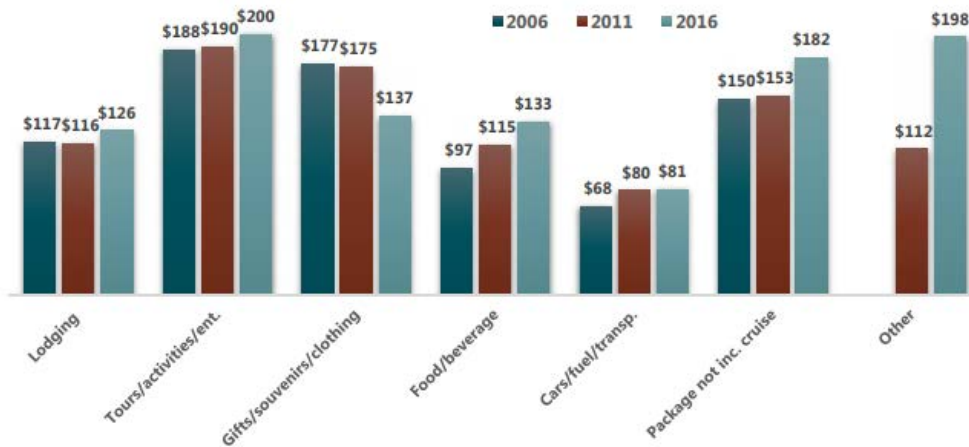
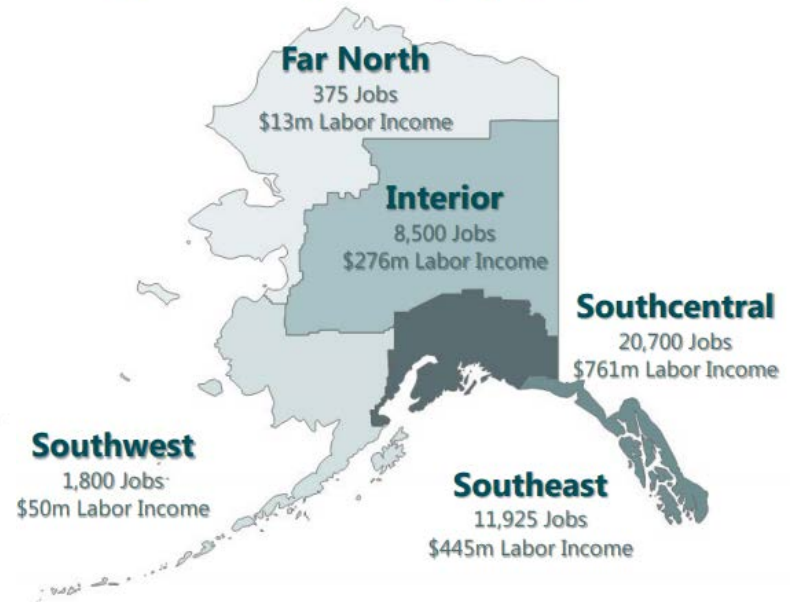


Figure 3. Visitor Industry Economic Impacts by Region, 2017



Nome

1st Class City

Overview

Incorporation 1901; **Land** 12.5 sq mi; **Water** 9.1 sq mi
ANCSA Entity Sitnasuak Native Corporation
Tribal Entity Native Village of Council
Indigenous Language N/A

Norton Sound/Seward Peninsula



Transportation Overview

Nome is a regional center of transportation for surrounding villages. The Port of Nome plays an essential role in regional transportation infrastructure. Nome is primarily accessible by air, although containerized household goods, building materials, vehicles, heavy equipment, and all petroleum products arrive by water during summer months. There are 10-12 cargo barges and 8-10 fuel barges/tankers that make scheduled deliveries each season. An additional trans-loading facility in the Inner Harbor was built in 2013 to address congestion at the existing barge ramp and allow more efficient transfers of cargo and rolling stock. The Small Boat Harbor plays host to about 25 commercial fishing vessels and a large offshore mining fleet which at times exceeds capacity. Alaska DOT's Snake River Bridge Replacement Project was completed in 2013 and will facilitate the increased traffic to and from the Port. Two state-owned airports are located in the community. The Nome Airport, located one mile northwest of the City, has two paved runways. Nome City Field, less than one mile north of the City, offers an additional gravel strip. Scheduled jet flights are available, as well as charter and helicopter services. Regional travel is facilitated by a network of 230 miles of gravel roads between Nome and the communities of Teller, Solomon, and Council.



3,691 PERSONS | HHI \$89k
POP 1980-2018 +45% | MA 31 y/o



*HHI = Average Household Income; MA = Median Age

Nome Airport OME 50540.*A



2017 Critical Aircraft Boeing 747-400
Edge Light Intensity HIGH
Runway Length 6,009 ft
Runway Surface ASPH-G
Bypass Mail Hub
Non-Standard Conditions? Yes
Non-Compliant Primary RSA? Yes

Community Marine and Riverway Information
Barge Facility Information City has protected port and harbor facilities, including docks at 22.5 feet mean lower low water (MLLW). Nome is the only protected publicly owned port and harbor in the NWATP Study. USACE identified Nome as the best location for an Arctic deep-draft port to serve increased Arctic shipping.
Improvements Since 2009 City built third dock along the causeway and improved a barge landing in the inner harbor area to facilitate cargo transfer to smaller communities. USACE 2017 inspection of Nome's 3,750-foot seawall confirmed good condition with some minor gaps on armor stone around culverts (USACE 2017d). 2017 USACE inspection of Nome Harbor found only minor deficiencies. Annual dredging removed 82,250 yards of material (USACE 2017e).
Comments and Issues n/a

Project Needs List

- Surface System:**
- Bridge improvements
 - Construct approximately 3/4 mile of boardwalk parallel to Bering Sea Coast extending east from Campbell Way to the Nome Bypass Road
 - Construct new road from the Nome-Council Road to Bluff
 - Construct parking area; includes sanitary facilities, picnic tables and interpretive signs
 - Construct parking lot, picnic areas, sanitary facilities and interpretive exhibits at MP 4, 15, 17, and 20
 - Correct erosion problems from MP 21 to MP 27 (Molly's Corner to Grandma Minnie's)
 - Extend road from Kougarok River approximately 25 miles to Taylor
 - Extend Steadman Street to the Nome Bypass Road
 - Front Street widening of sidewalks, installation of period lighting, and four intersection bump outs located at the intersections of Front Street with Hunter Street and Federal Way
 - Improve access to Serpentine Hot Springs
 - Improve highways
 - Improve road drainage and paving for dust control in Nome City
 - Improve road embankment, provide drainage, and resurface approximately 6.25 miles of Osborne Road
 - Improve roads and city streets
 - Improve traffic and safety on eight Nome Area Bridges
 - Lighting Seppala to airport terminals, Blodgett Highway to Mile 4
 - Nome-Council Road Emergency Repairs and Nome Sea Storm Permanent Repairs
 - Pave approximately 20 miles of city streets.
 - Pave local streets
 - Perform surface repairs at various locations along the Nome-Teller Highway
 - Raise grade and resurface Nome-Teller Road MP 4.5 to 20
 - Raise grade, recondition surface, and slope flattening along significant sections to reduce snow drifting near MP 8-10, 16, 18, 21-24, 26-27 29, 30-32.5, 36 and 38
 - Raise grade, widen and replace a culvert on 0.5 miles of Nome Bypass Road between N Street and Front Street
 - Realign and rehabilitate approximately 7 miles of the Nome Council Highway; includes bridge number 0268
 - Realign and rehabilitate Seppala Drive in Nome from the intersection of Bering Street to the intersection of Airport Terminal Road

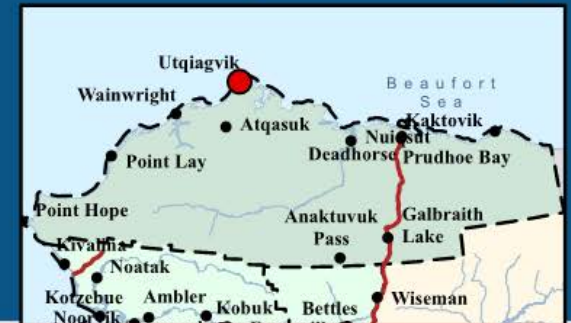
Utqiagvik

Utqiagvik 1st Class City

Overview

Incorporation 1958; **Land** 0.0 sq mi; **Water** 0.0 sq mi
ANCSA Entity N/A
Tribal Entity Native Village of Utqiagvik Inupiat Traditional Government

North Slope Borough



Transportation Overview

Regularly-scheduled jet services provide Utqiagvik's only year-round access. The state-owned Wiley Post-Will Rogers Memorial Airport serves as the regional transportation center for the borough. The airport has an asphalt runway. Marine and land transportation provide seasonal access.

5,041 PERSONS | HHI \$95k
POP 1980-2018 +122% | MA 27 y/o

*HHI = Average Household Income; MA = Median Age

Post/Rogers Memorial Airport BRW 50054.3*A

2017 Critical Aircraft Boeing 747-800
Edge Light Intensity HIGH
Runway Length 7,100 ft
Runway Surface ASPH-F
Bypass Mail Hub
Non-Standard Conditions? Yes
Non-Compliant Primary RSA? Yes

Community Marine and Riverway Information

Project Needs List

- Surface System:**
- Construct a 1859' extension to Yugit Road to access the new Utqiagvik hospital
 - Construct a new road connecting Cakeeater Road to the New Utqiagvik Arctic Research Center
 - Construct approximately 7 miles of hardened ATV trail
 - Construct approximately one mile of boardwalk in vicinity of school, hospital, park, softball field and lagoon
 - Construct new road to gas field
 - East Utqiagvik Subdivision Road
 - Expand road to new residential areas
 - Extend the existing Laura Madison Road to Cake Eater Road; repair and upgrade the existing road to the new landfill; rehabilitate and repair damage to the Dam Road caused by weather erosion
 - Improve the road between Utqiagvik and the Nunuvak Subdivision area
 - Rebuild approximately two miles of sunken roadbed
 - Reconstruct and extend Laura Madison and Stevenson Streets
 - Rehabilitate and pave approximately 0.625 miles of Ahkovak Street, from Okpik Street to Klogak Street, including drainage improvements
 - Upgrade existing roads and construct several new roads in Utqiagvik and Browerville
 - Upgrade the Isatkuaq lagoon dam road
- Aviation System:**
- Construct a full length south side parallel taxiway
 - Construct approximately an 80' by 100' extension of the current ARFF/SREB, connected to the existing building by a corridor
 - Develop an apron and access road on the south side of the runway to facilitate the development of new lease lots
 - Passenger terminals and security fencing
 - Rehabilitate and level the runway, taxiways, taxi lane, and airport lighting at the Utqiagvik Wiley Post- Will Rodgers Airport; replace signing and striping; repair cracking on the runway, taxiways, and taxi lane
 - Repair the Runway 07 surface variation (bump)
 - Taxiway and taxi lane construction; apron expansion lease area development and security fencing installation
 - Widen safety areas; reconstruct and pave apron, apron expansion and other improvements
- Marine System:**

Kotzebue

Qikiqtagruk 2nd Class City

Overview

Incorporation 1958; **Land** 27.0 sq mi; **Water** 1.7 sq mi
ANCSA Entity Kikiktagruk Inupiat Corporation
Tribal Entity Native Village of Kotzebue
Indigenous Language Inupiaq

Northwest Arctic Borough



Transportation Overview

Air is the primary means of transportation year-round. The state-owned Ralph Wien Memorial Airport supports daily jet service to Anchorage and several air taxis to the region's villages. It has a crosswind gravel runway. A seaplane base is also operated by the state. The shipping season lasts 100 days, from early July to early October, when the sound is ice-free. Due to river sediments deposited by the Noatak River four miles above Kotzebue, its harbor is shallow. Deep draft vessels must anchor 15 miles out, and cargo is lightered to shore and warehoused. Crowley Marine Services operates shallow draft barges to deliver cargo to area communities. There are 26 miles of local gravel road used by cars, trucks, and motorcycles during the summer. Snow machines are preferred in winter for local transportation.



Airport



Harbor/Dock



Cargo Barge



Road Connection



Coastal

3,154 PERSONS | HHI \$96k
POP 1980-2018 +54% | MA 29 y/o



Hospital



Clinic



Dental



Itinerant Nurse



Library



Post Office

*HHI = Average Household Income; MA = Median Age

Ralph Wien Memorial Airport

OTZ 50429.*A



Weather Station



Weather Camera



Passenger Shelter



Electricity Available



Public Toilet



Snow Removal Equipment

2017 Critical Aircraft Boeing 747-400

Edge Light Intensity MED

Runway Length 3,876 ft

Runway Surface GRAVEL-F

Bypass Mail Hub

Non-Standard Conditions? Yes

Non-Compliant Primary RSA? Yes

Community Marine and Riverway Information

Barge Facility Information Alluvial deposition restricts access to the community. Deep draft vessels anchor 12 miles offshore. Cargo is lightered to shore and warehoused. Shallow draft barges transfer cargo and fuel to area villages.

Improvements Since 2009 None

From Community Plan Community has identified need to dredge an entrance and channel to Kotzebue and/or to develop a port at Cape Blossom to accommodate common carrier barges with a 10-mile road access to Kotzebue. This project would eliminate the need to lighter fuel and cargo to Kotzebue.

Project Needs List

Surface System:

- 3rd Avenue sidewalk
- Continuation of Shore Avenue
- Deep water dock
- Dust control
- Improvement to Ted Stevens Way
- New Road – Iggy Hill Road
- Road from Cape Blossom to Nimiuk Point
- Road to Cape Blossom
- Small boat harbor improvements
- Ted Stevens Way - Pedestrian and Bike Trail
- Ted Stevens Way - Phase II

Major Regional Infrastructure - Discussion



Planning Projects - NAB

LOCATION	PROJECT TITLE	SCOPE	Comment
NWAB, NSB, NORTON SOUND/SEWARD PENINSULA, MIDDLE YUKON	NORTHWEST ALASKA TRANSPORTATION PLAN UPDATE	Update the 2004 NWATP, inventory multimodal transportation needs and facilities, conduct forecasts, and identify multimodal transportation improvement throughout the northwest region of the state.	In Progress
NOATAK	NOATAK PLANNING AND ENVIRONMENTAL LINKAGE STUDY	Conduct elements of a Planning and Environmental Linkage Study to reduce costs associated with planning and NEPA processes for several identified projects in Noatak.	In Progress

Projects in Design - NAB

LOCATION	PROJECT TITLE	SCOPE	ANTICIPATED CONSTRUCTION
DEERING	Deering airport and access road improvements	Resurface the existing runway, taxiway and apron and provide drainage improvements. Upgrade lighting system and electrical building. Provide erosion protection for the runway safety area at Runway 29. Replace segmented circle. Upgrade and armor the airport access road to reduce flooding and provide cross drainage. Apply dust palliative to all airport operational surfaces and access road.	2020 Contingency
	Deering airport snow fence	Construct a snow fence at the Deering Airport.	2020 Contingency
	DEERING AIRPORT SNOW REMOVAL EQUIPMENT BUILDING (contingency)	Construct a snow removal equipment building at the Deering Airport.	Beyond 2023
KIANA	Kiana airport snow removal equipment building replacement	Replace the Kiana Airport Snow Removal Equipment Building. Work will include demolishing the existing building, foundation, and expanding pad.	Beyond 2023
KIVALINA	Kivalina airport snow removal equipment building	Construct a snow removal equipment building at the Kivalina Airport.	Beyond 2023
	Kivalina evacuation and school site access road	Construct an access road to the new Kivalina school site near Kisimiguiutquq Hill. This is the overall design for the entire project. The construction will be delivered in two stages under NID 31778 and this NID 28109.	Construction in Stages
KOTZEBUE	Kotzebue airport apron pavement rehabilitation	Rehabilitate the main apron, Taxiways A and B, portions of Taxiways D and E, replace lighting and pavement markings.	2020 Contingency
	Kotzebue third avenue sidewalk (tap)	Construct pedestrian facilities along Third Avenue from the Airport Access Road to Garden Street including roadside hardware, drainage improvements, ADA improvements, and utilities.	2020
	Kotzebue to cape blossom road	Construct a new road from Kotzebue to a port site near Cape Blossom.	Construction in Stages
NOATAK	Noatak airport relocation	Relocate the existing 4,000' X 60' airport. Construct a new runway, apron, taxiway, aviation support area, SREB and apply a dust palliative. Project will also include construction of a new airport access road.	2021 Contingency
NOORVIK	Noorvik airport rehabilitation	Rehabilitate the runway, taxiway, apron, and airport lighting. Stabilize slopes, rehabilitate shoulders, and apply a dust palliative.	2021 Contingency
SELAWIK	Selawik barge landing access rd & boardwalk improvements	Rehabilitate the existing barge landing access road, construct a new gravel barge staging pad, install lighting, and replace sections of existing boardwalk. Will also include rehabilitation of the utility crossing at the land fill.	2020

Construction Projects - NAB

LOCATION	PROJECT TITLE	SCOPE	CONSTRUCTION STATUS
BUCKLAND	BUCKLAND AIRPORT SREB UPGRADE	Upgrade the Snow Removal Equipment Building (SREB) at the Buckland Airport.	Project Substantially Complete. Contractor correcting unit heater installation issue. (Lakloey, Inc. \$778,879)
KIANA	KIANA AIRPORT IMPROVEMENTS	Skew, resurface and extend the runway to 4,000'; replace the system; construct PAPI pads; extend and surface the taxiway; expand the apron and resurface the existing apron and airport access road; construct material site access road; and apply dust palliative to operational surfaces.	Phase I excavation completed. Material site development began. (Cruz Construction, Inc. \$15,596,020)
KIVALINA	KIVALINA AIRPORT EROSION CONTROL	Install permanent coastal erosion control at the Kivalina Airport.	Construction scheduled for 2019. (Brice Construction \$9,979,348.3)
	KIVALINA EVAC & SCHL SITE ACCESS RD- KIVALINA LAGN TO K HILL	Construct an access road to the new Kivalina school site near Kisimiguiutq Hill. This is the overall design for the entire project. The construction will be delivered in two stages under NID 31778 and this NID 28109.	In progress. Stage I under construction. Stage II awaiting STIP approval. (ASRC)
SELAWIK	SELAWIK FOOTBRIDGE REHABILITATION	Rehabilitate the East Fork Selawik Footbridge and the West Fork Selawik. Work will include replacement of surface boards, repair and improvements to bridge landings, repairs to chain link fence and steel cross bracing, approach foundation repairs and electrical utility relocation.	(Ridge Contracting, Inc. \$1,160,300)



Alaska Department of Transportation & Public Facilities Alaska Aviation

Keep Alaska Moving through service and infrastructure

Alaska Aviation

394 Public Airports

237 are owned by DOT&PF

82% of communities off road system

8,583 Active Pilots

Seaplane base: World's Largest and busiest

Cargo: Anchorage is world's 5th largest

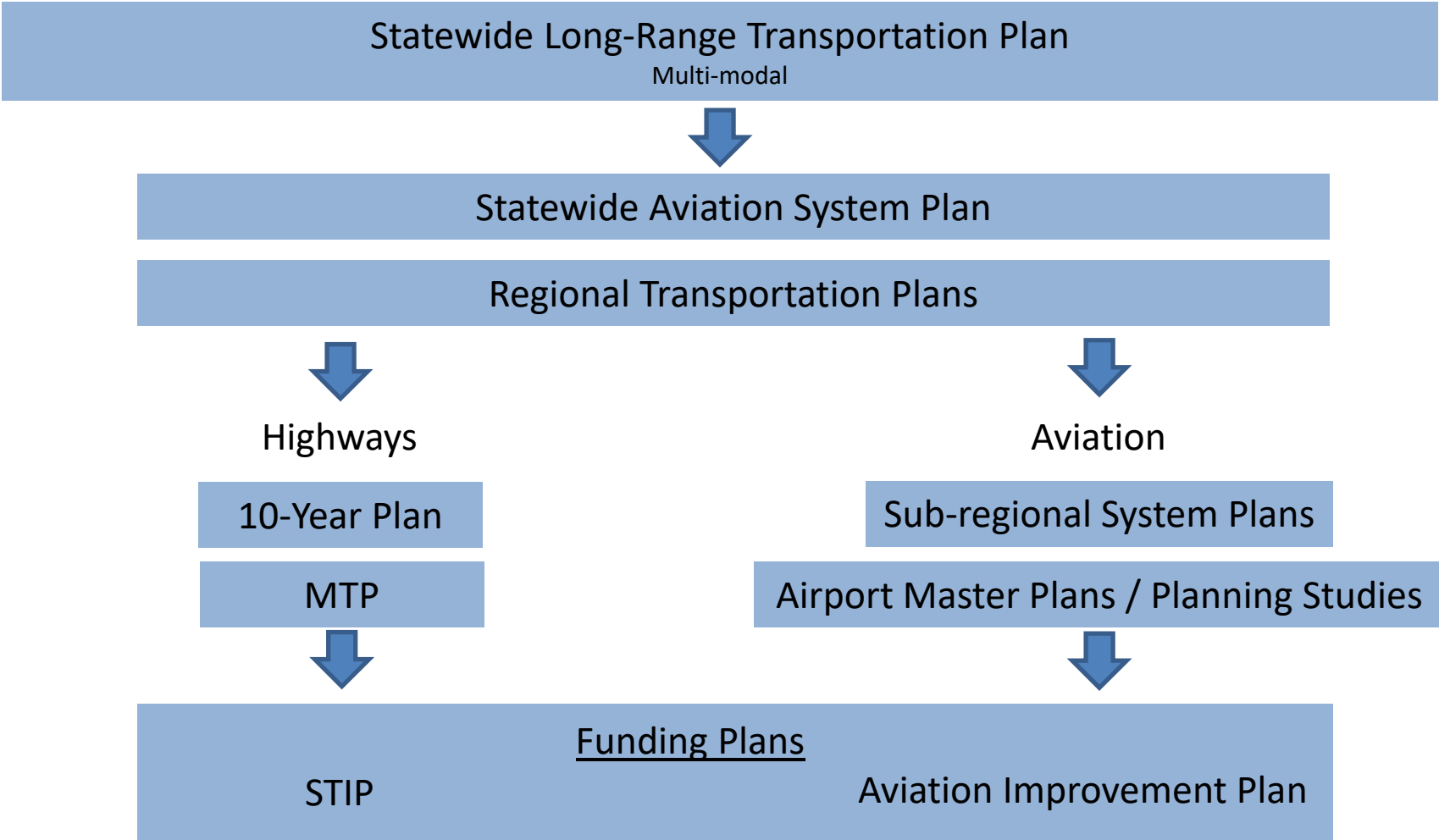
\$217.5 million Airport Improvement Program

\$4.7 billion since 1982





Alaska Aviation

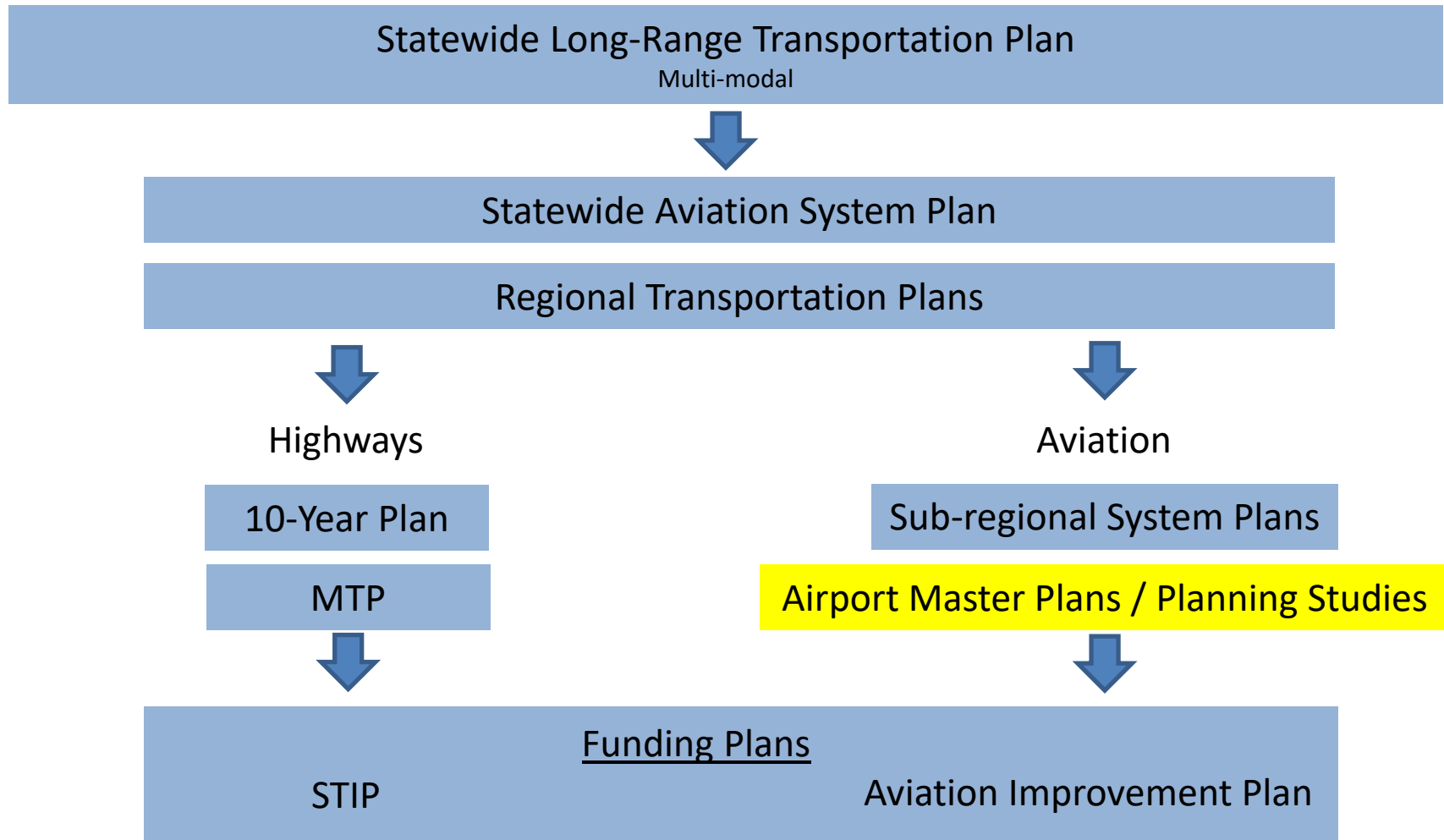




Alaska Department of Transportation & Public Facilities Valdez Airport Master Plan

Keep Alaska Moving through service and infrastructure

What is a Master Plan?



Valdez Airport Master Plan

Overview

- Fly In!
- Land Use
 - Aleutian Village
 - Robe Lake Seaplane Base
- Forecasts
- Using Master Plans to explain complicated technical issues
 - Weather Cancelations
- Financial Plan



Existing Conditions

Aleutian Village Trailer Park

- Important Housing
 - City of Valdez Efforts
- Airport Property
- Necessary for Aeronautical Service?
- How to manage?



Existing Conditions

Robe Lake Seaplane Base

- Important to community
- Dynamic history
- Public interest in new facility
 - Limited funds available
- Facilitating discussion
 - Documenting history
 - Brainstorming practical projects
 - Collaboration

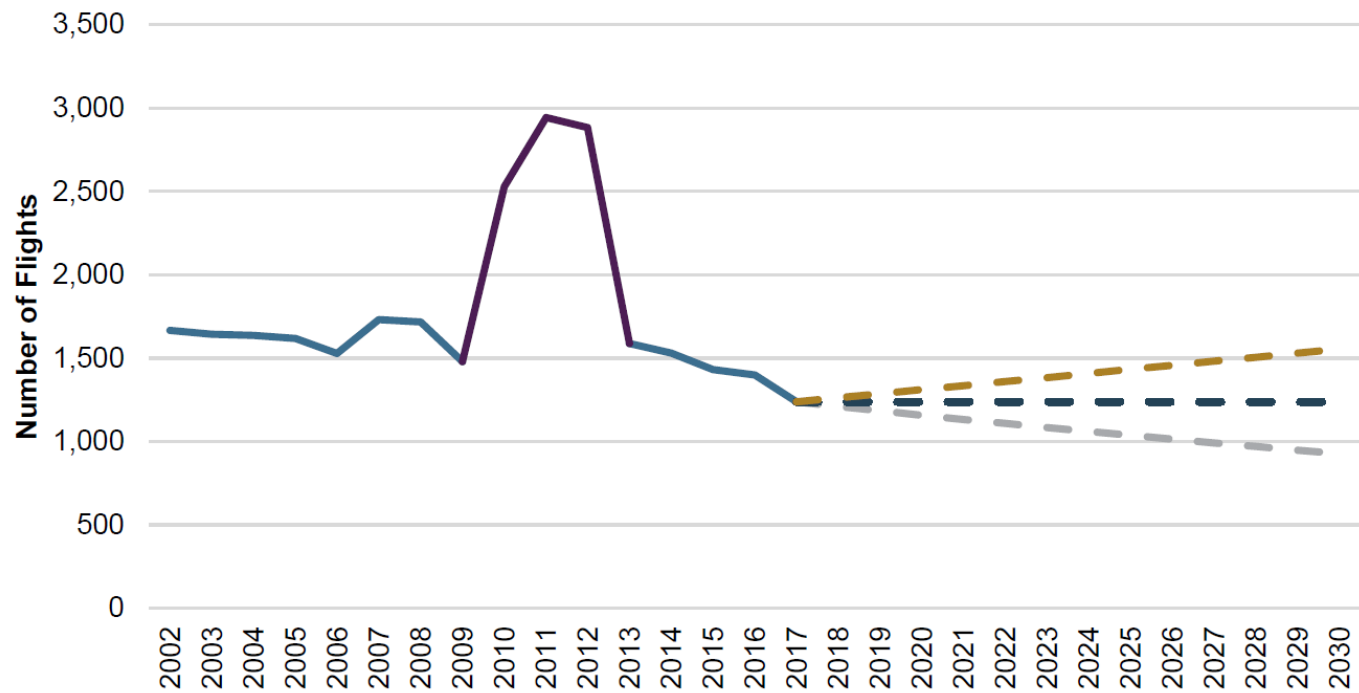




Forecasts

Low Growth Rates

- 1-2 Daily commuter flights





Facility Requirements

Weather is canceling 20% of flights

Stakeholders extremely frustrated

- **Weather, Mountains:** Can't Change
- **Can Improve Facilities**

How to improve?

- Improve Approaches?



Using Planning to Educate

Master Plans are the perfect vessel for increasing understanding of complicated systems.

Why do other airports have better service (fewer cancelations)?

- Passenger Revenues

	2017 Passengers	2019 EAS Subsidy	Better Approach?
Valdez	21,902	-	No
Haines	15,297	-	No
Gustavus	19,676	\$776,790	Yes
Yakutat	51,308	\$3,107,161	Yes
Cordova	66,466	\$3,107,161	Yes
Wrangell	85,389	\$470,525	Yes
Juneau	808,785	-	Yes

Using Planning to Educate

Why do other airports have better service?

- Essential Air Service (EAS)
 - 1978 Airline Deregulation
 - Communities would be isolated without direct federal subsidies
 - Revenue provides dependable annual subsidy for improved aviation system
- Valdez is connected to the road system
 - No EAS funding

	2017 Passengers	2019 EAS Subsidy	Better Approach?
Valdez	21,902	-	No
Haines	15,297	-	No
Gustavus	19,676	\$776,790	Yes
Yakutat	51,308	\$3,107,161	Yes
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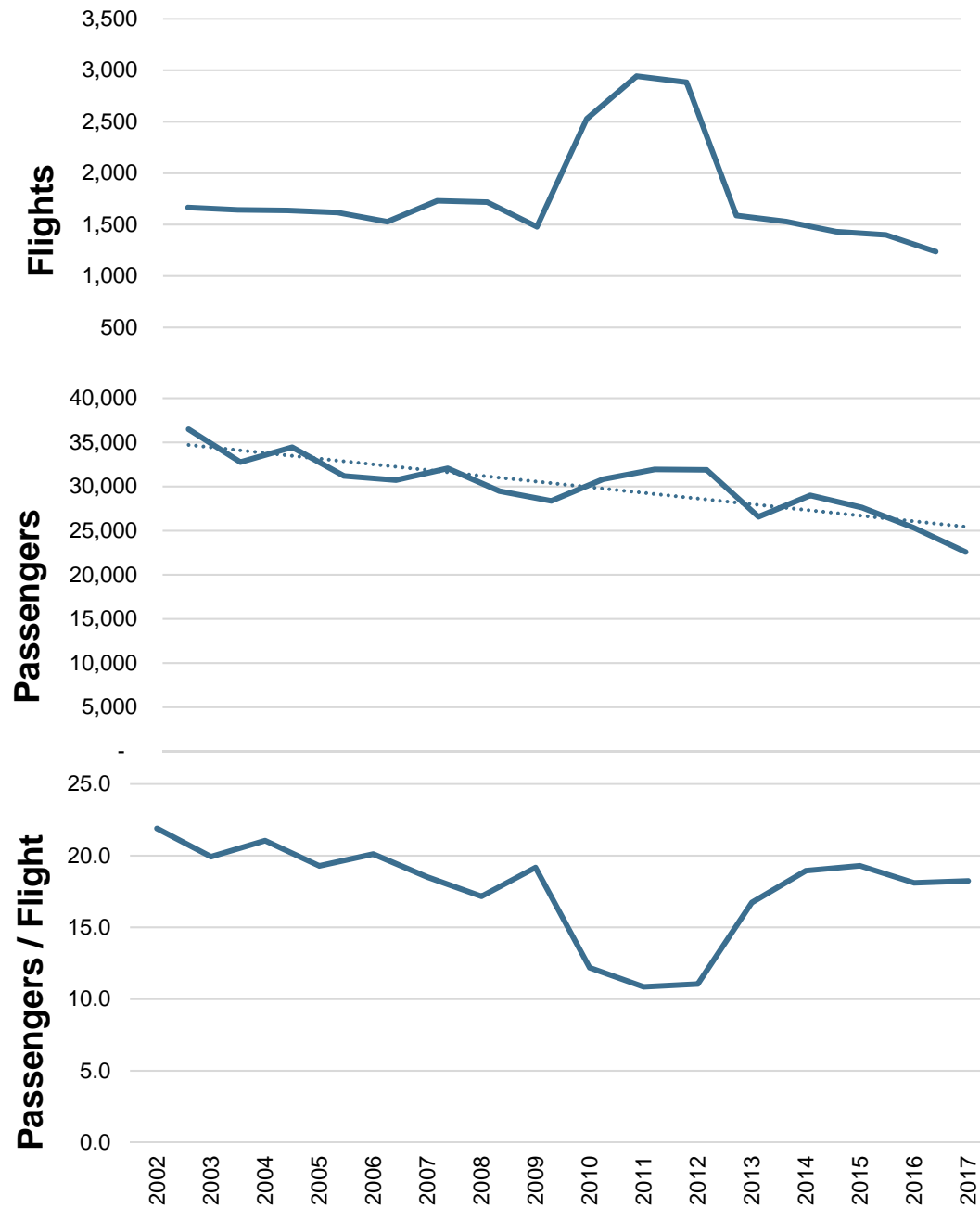


Financial Feasibility

What about just increasing the number of airlines?

- 2010-2013 Grant Aviation provided a 2nd air service
- # of passengers stayed the same
- Revenues were split between 2 firms

- Importance of Visuals





Financial Feasibility

Maintenance & Operations

- Snow Plowing Large Areas
- Less activity than in the past (e.g. TAPS)
- FAA will limit funding



Valdez Airport Master Plan

Review

- Educate on Technical Subject
 - Land Use
 - Instrument Approaches
- Improve Facilities
 - Fly In
 - Financial Feasibility
- Facilitate Economic Development
 - Robe Lake

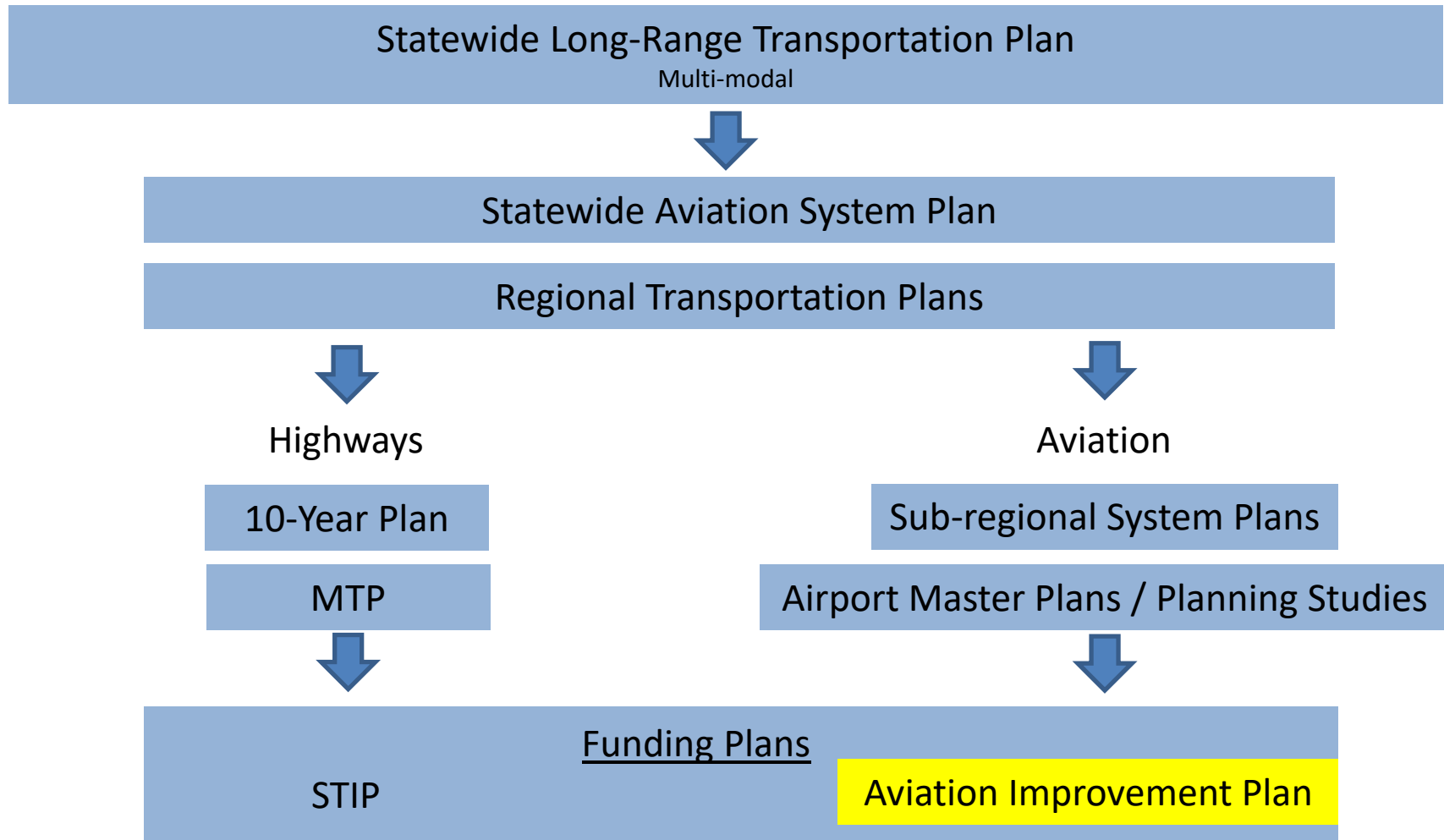




Alaska Department of Transportation & Public Facilities Noatak Airport

Keep Alaska Moving through service and infrastructure

What is an AIP?





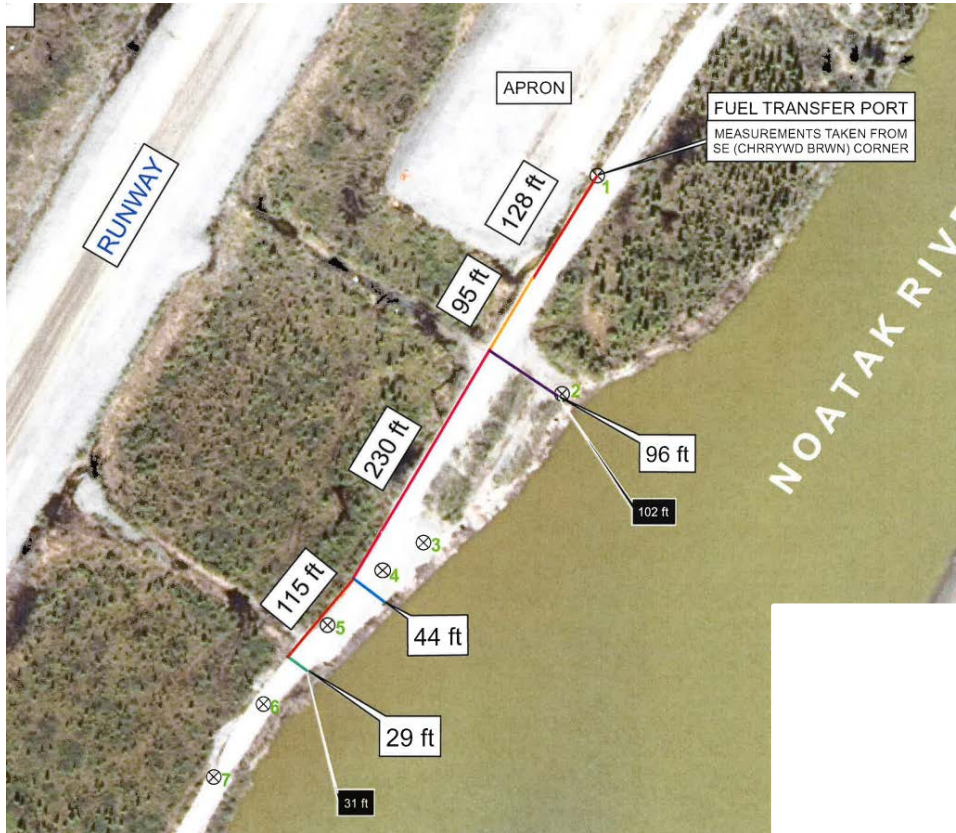
Overview

- Erosion Threats
- Airport Relocation
- Overland Haul Route
- Material Sites





Erosion Threats



Erosion Threats

Planning Challenges

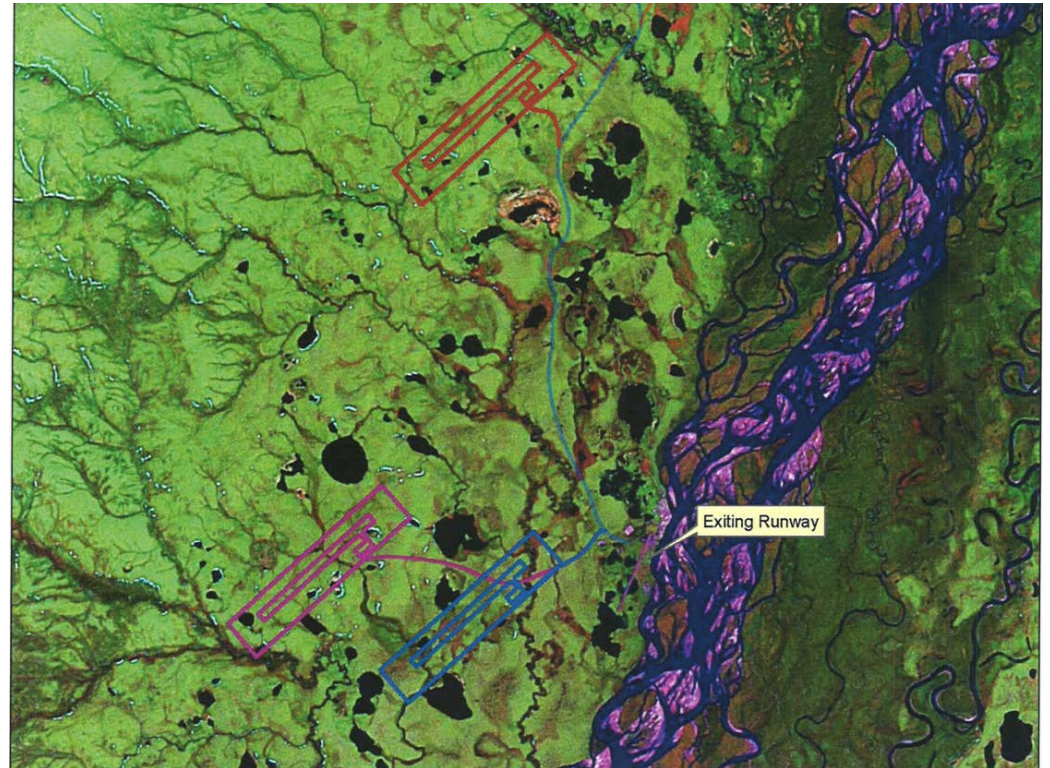
- Not a 'discrete' failure
- Funding System is not set up for natural processes
- How to build and maintain momentum?
- Prevent enthusiasm from burning out?



Alternative Locations

Studies since 2004

- Shoreline Armoring
- Relocation



Alternative Locations

Studies since 2004

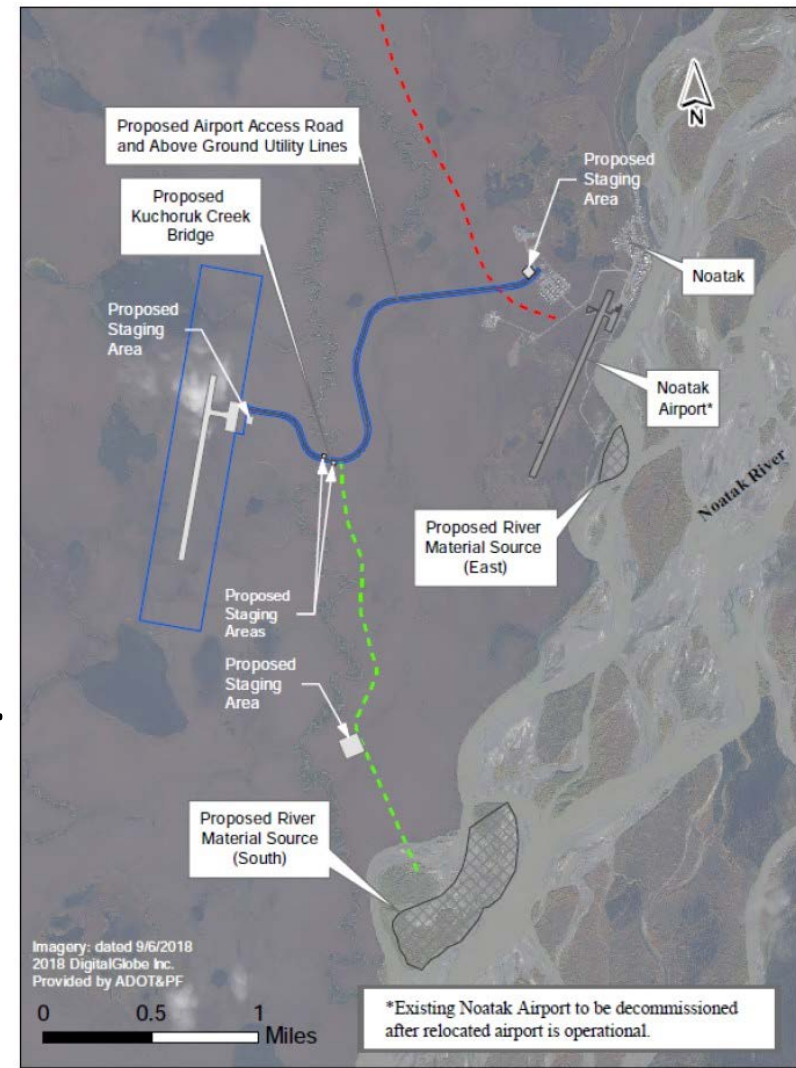
- Shoreline Armoring
- Relocation

Focus on close alternative

- Directs noise away town
- Minimizes commute

Selecting a location is relatively easy...

How to implement?





How to Implement?

No roads

Noatak River

- Shallow, braided, dynamic
- No barging

Overland Winter Haul

- Could implement from ocean
- DMTS
 - Essential port and road!

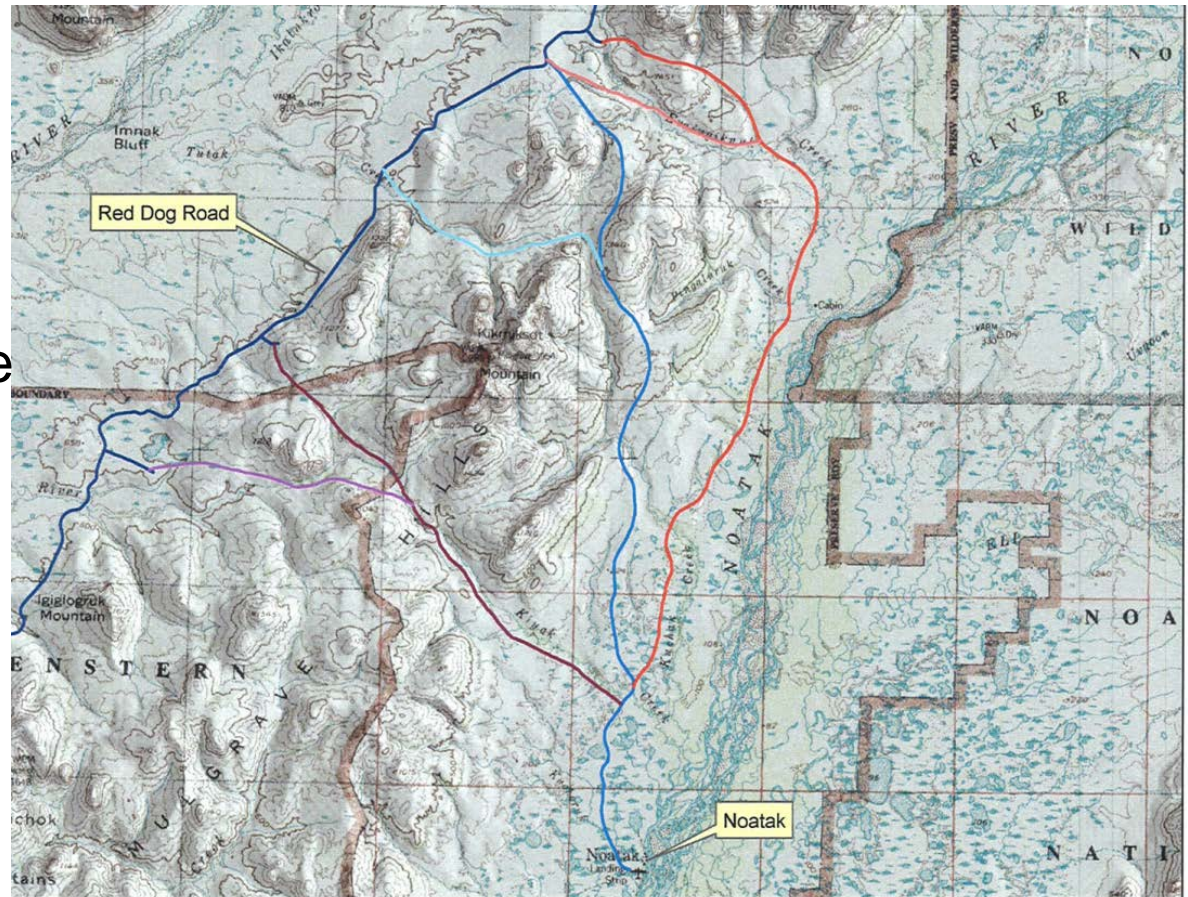




How to Implement?

Overland Winter Haul

- Which Route?
- Local Stakeholders
 - Culturally Relevant
- Subsistence
- National Park Service
- SHPO
- Stream Crossings



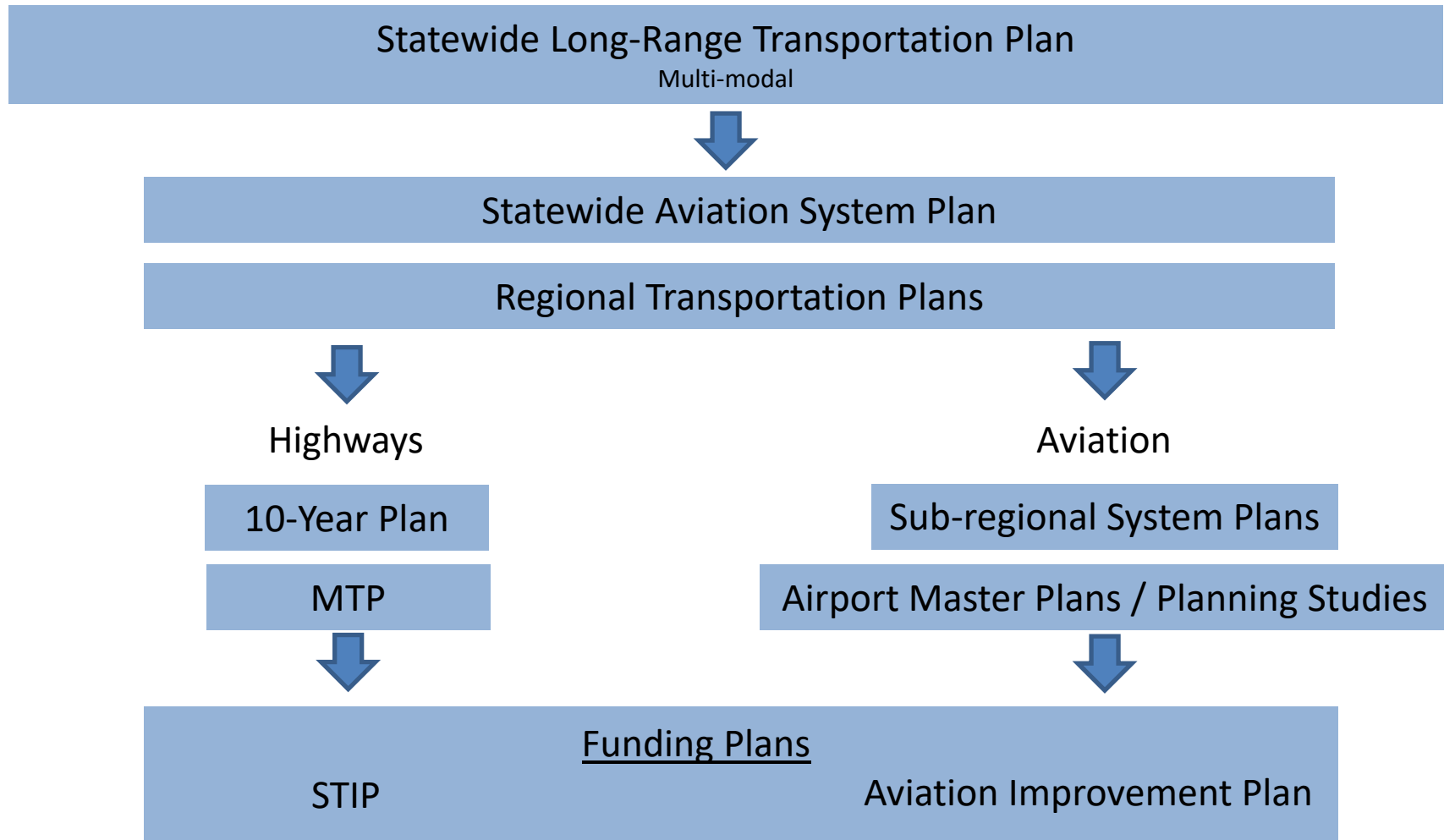
Noatak Airport

Review

- Clear Need
- Planning Hurdles
- Develop Innovative Strategy
 - Overland Haul
- Build Momentum
 - Agency Collaboration



Questions?



Thank you!

