



ALASKA MOVES 2050

Long-Range Transportation Plan

September 2022



L RTP

ALASKA STATEWIDE LONG-RANGE
TRANSPORTATION PLAN

PUBLIC REVIEW DRAFT

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Alaska Department
of Transportation
& Public Facilities
<http://dot.alaska.gov>

Hoonah Seaplane Base, source DOT&PF



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May 25, 2022

Fellow Alaskans:

The Department of Transportation & Public Facilities (DOT&PF) welcomes your participation in the review of this draft of the latest update to Alaska’s Statewide Long Range Transportation Plan (LRTP), *Alaska Moves 2050*. Similar to its predecessor *Let’s Keep Moving 2036* completed in 2016, this plan was developed with a rigorous multi-modal analysis of our entire transportation system, with particular emphasis on the facilities and infrastructure owned and managed by DOT&PF. In this effort we wish to thank the members of the Statewide Transportation Plan Advisory Committee (STAC) and Statewide Freight Advisory Committee (FAC) for their investment of time and effort in this process, as well as the many members of the public who have visited our website, reviewed the planning documents and responded to surveys.

When we undertook this Statewide LRTP update, Alaska DOT&PF had already implemented federally required performance management target-setting and reporting. This plan emphasizes further implementation of performance-based planning and programming (PBPP) in the Department, with strategies and action steps identified to help us better integrate, manage, and maintain a safe, equitable, efficient, and resilient multi-modal transportation network for the long-term. As we implement these strategies in the upcoming years, we anticipate measuring and reporting progress towards multiple goals and objectives through data-driven, transparent decision-making.

As we look to the future, we see the familiar challenges of geography, climate, remoteness, energy, and self-sufficiency that have characterized transportation in Alaska since before statehood. But we also see new challenges and opportunities over the next 25 years in the forms of diminishing Arctic sea ice, diversification of energy, shifting demographics, and accelerating technology. The funding opportunities given Alaska through the Infrastructure Investment and Jobs Act passed in 2021 provide potential for advancing transportation development at the community and regional level, as well as developing a workforce to operate and maintain that infrastructure.

We look forward to your feedback.

For Ryan Anderson, P.E.
Commissioner

“Keep Alaska Moving through service and infrastructure.”



Acknowledgments

*Denotes dual membership on the Freight Advisory Committee and the State Transportation Advisory Committee

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Glenn Highway north of Eagle River, source DOT&PF

1. Introduction

Keeping Alaska moving

Each of us relies on a network of transportation options every day, whether we walk, roll, fly, take a ferry or bus, ride a bicycle, or drive.

Our transportation network connects us with each other, our families, our jobs, and essential services like medical care. It's how we receive our food, fuel, packages, and the basic goods that contribute to our quality of life. It helps our economy grow and thrive and sustains our tourism industry.

When this network breaks down, there are real impacts to our everyday lives—lost time, missed opportunities, and service interruptions.

Alaska at a crossroads

Our state faces major challenges in the next 25 years. Changing populations, aging transportation infrastructure, natural disasters, funding challenges, and cutting-edge technologies will require careful planning to keep Alaska moving into the future.

Alaska spans vast distances, climates, geographies, and ways of life. One community's low priority might be another's critical lifeline. A secure future must be built on a shared understanding of how each community's transportation network is linked to the others, and what it takes to keep the whole system rolling, sailing, and flying.

The complexity of Alaska's transportation system cannot be overstated:

Alaska's mountain ranges, glaciers, and vast wilderness create natural barriers to transportation. Of the 20 highest peaks in the United States, 17 are in Alaska. There are more than 3,000 rivers in Alaska and over 3 million lakes.

Alaska is the biggest state in the United States, sure, but it is also larger than the combined area of the 22 smallest U.S. states. Alaska boasts the northernmost (Point Barrow) and the westernmost (Amatignak Island in the Aleutians) points in the United States.



Vanilla unmanned aerial system) after landing at Deadhorse Airport

2. What's the Plan?

A plan as adaptable as Alaskans

Every five years, Alaska Department of Transportation and Public Facilities (DOT&PF) updates the Long-Range Transportation Plan (LRTP) to evaluate the state's transportation system, document what's changing, and map out how we'll continue to serve all Alaskans, businesses, and visitors through the coming decades.

The updated LRTP guides decisions related to state-owned multimodal transportation assets over the next 25 years. It outlines goals, policies, and measurable actions to inform investment strategies for an adaptable and resilient transportation system. The plan is so important to our future that it is required by federal and state laws.

Looking at the facts

As a steward of public transportation dollars, DOT&PF always looks for more safe, efficient, and economical ways to keep Alaskans moving. For that reason, this LRTP update is based on a performance-based planning framework. Performance-based planning means tailoring decisions to local context and using the best available data to inform them. The benefits of this approach include:

- **Improved decision-making.** Decisions are informed by data and therefore more objective.
- **Higher return on investments.** Investment priorities are linked to systemwide transportation strategic goals and desired outcomes.

- **Better accountability and transparency.** Clear expectations are set about the level of performance likely achievable with a given level of funding. This makes it easier for people to understand why transportation dollars were spent the way they were.
- **Improved performance.** Performance targets (desired outcomes) are set and progress is monitored and measured over time. It becomes possible to answer the question: "Are we achieving what we hoped?"

Looking to the future, not the past

This update took place during a unique period in our recent history. The COVID-19 pandemic continues to impact how the statewide transportation network is used, when it is used, and who is using it. Travel was restricted at Alaska/Canada border crossings, the summer 2020 cruise season was canceled and air travel was reduced. Sometimes, limitations were placed on intercommunity movement. Commuters who normally drive, ride the bus, or even fly for business worked remotely and many continue to do so, resulting in fewer trips.

The pandemic also resulted in a significant increase in air cargo moving through the Ted Stevens Anchorage International Airport (ANC) and local e-commerce deliveries on our streets. At the same time, impacts from climate change are threatening existing infrastructure and Alaska's population has been declining, resulting in workforce challenges.

Finally, the Infrastructure Investment and Jobs Act (IIJA) passed in 2021 will bring billions in federal transportation dollars to Alaska over the first five years of this plan.

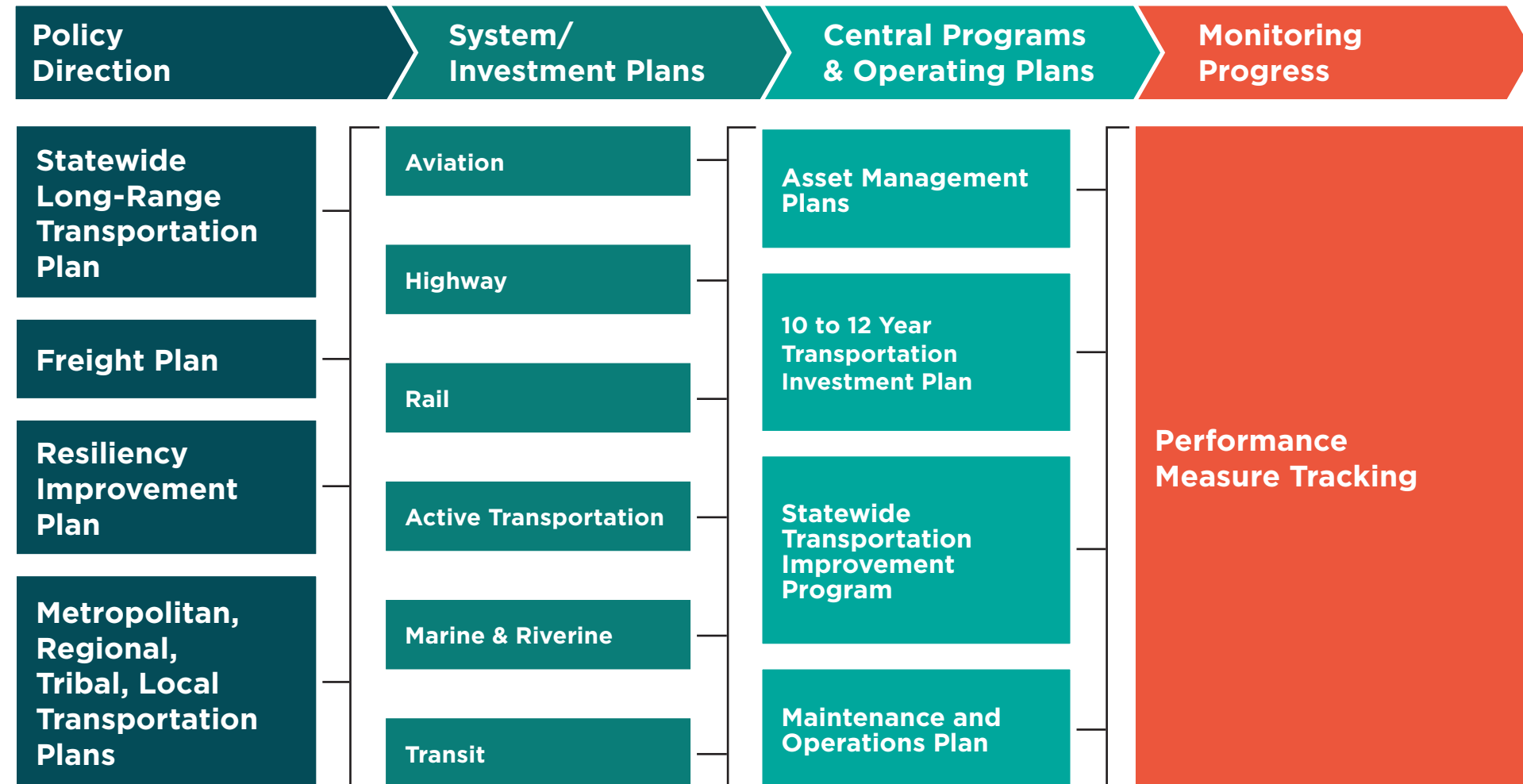
The LRTP acknowledges past trends but also recognizes they may not be predictive of the future. This plan looks forward so the transportation system can be ready for what may be coming next.

Developing a Family of Plans

The LRTP presents a transportation vision for the state that is intended to filter down to other state transportation plans. It outlines what DOT&PF is trying to achieve and how it will be done will be addressed in investment, programming, modal plans, and regional planning efforts.

Some of the members of this family of plans are in place, and others will require some work to develop and implement. Improving and streamlining the transportation planning and investment framework will help strengthen and grow partnerships to work more efficiently toward a shared future.

Proposed Family of Plans



Who helped create the LRTP?

A good plan needs everyone's voice. The State Transportation Advisory Committee and Freight Advisory Committee, appointed by the Commissioner, were essential in guiding the development of the LRTP.

Many other people provided feedback during the LRTP's development through targeted interviews, small group meetings, and public outreach activities that included Alaska residents, freight and tourism representatives, business and industry representatives, tribal organizations, MPOs, and other alliances and associations.

The result is a plan that can be used by all these stakeholders to prioritize their transportation efforts based on shared goals.

Environmental Justice and Equity

DOT&PF's public outreach focused on making everyone feel welcome by providing a variety of opportunities to engage so that traditionally underrepresented and hard-to-reach Alaskans could have a voice. The U.S. Environmental Protection Agency defines environmental justice as "the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies."

Engaging with Alaskans

Input from the Alaskan public about their transportation priorities was gathered through two outreach efforts. In June 2021, DOT&PF released an online open house and survey to learn about what is important to Alaskans and what the key transportation challenges are across the state.

A second event in February 2022 asked Alaskans which of the plan's goals were most important to them and how they would spend available funds.

The survey results showed how important it is to have more than one way to get to school, work, the doctor—to visit friends and family and receive critical supplies. They also revealed how important it is to Alaskans to keep the system we have in good working order.



Who participated

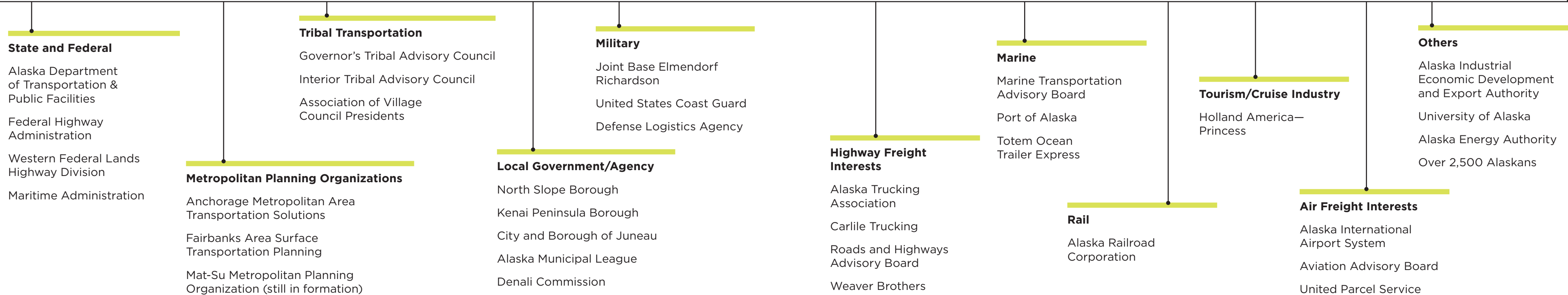
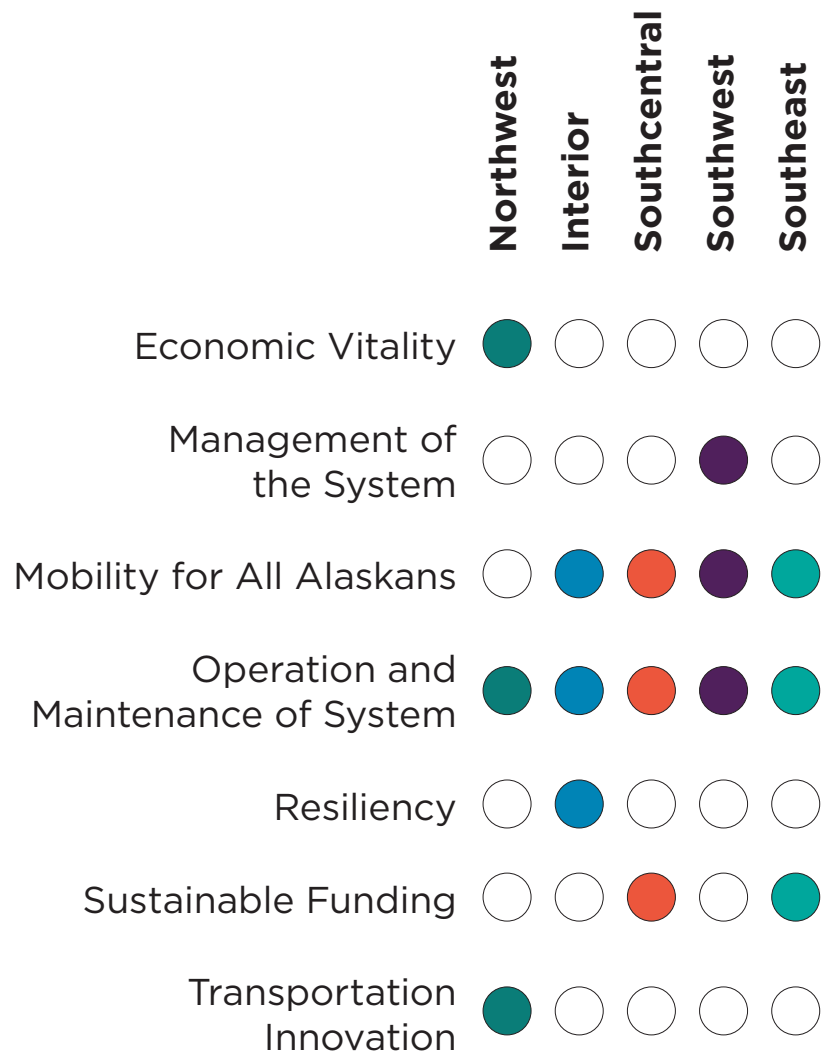
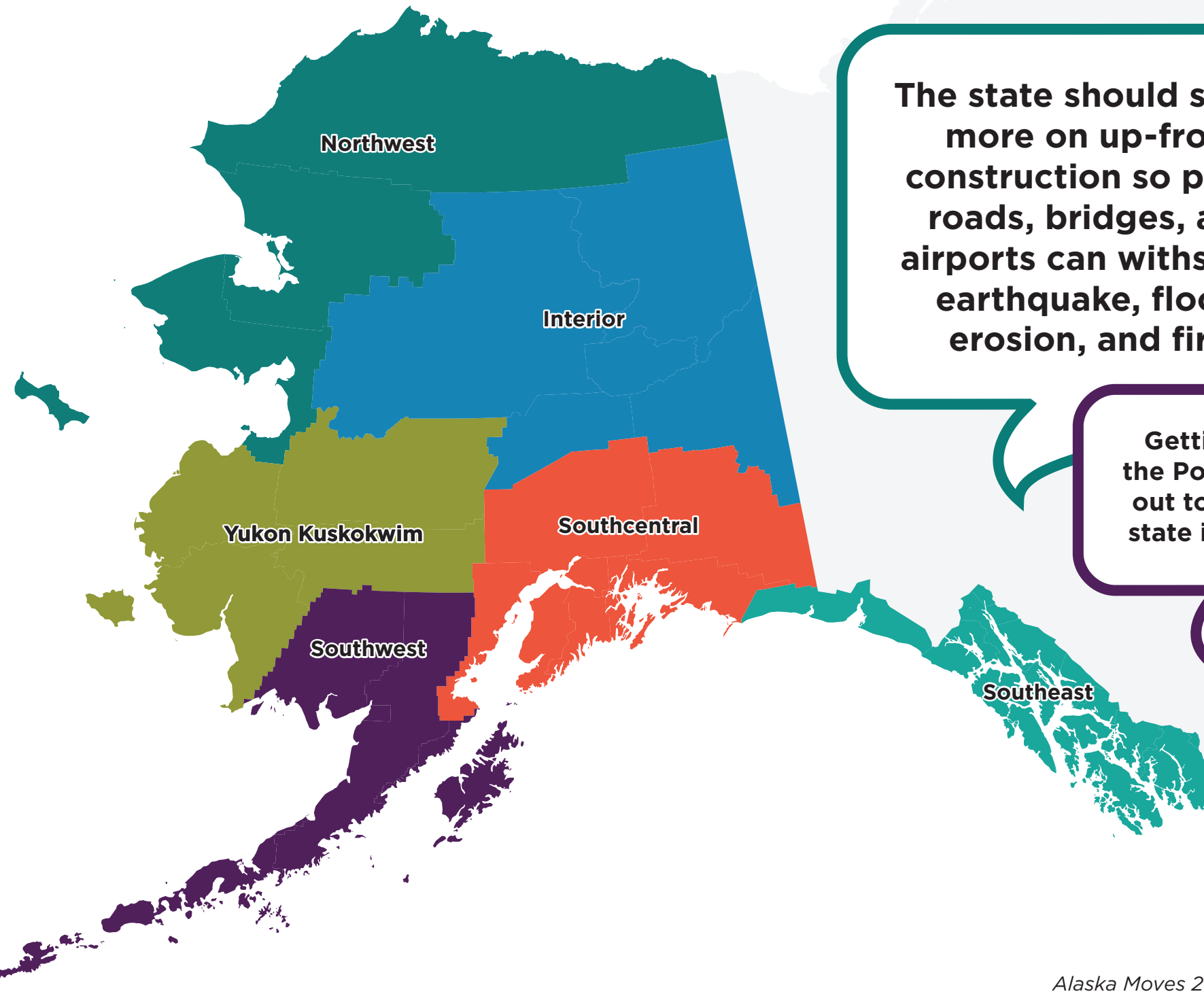


Figure 1: Input Received Through Public Engagement

Top 3 Transportation Priorities by Region



Note: Priorities marked are the top three for each region, based on survey results. There were no responses from Yukon Kuskokwim.



Comments heard from the Public by Region

The state should spend more on up-front construction so ports, roads, bridges, and airports can withstand earthquake, flood, erosion, and fire.

When planning to expand our system, the cost to operate and maintain it should be considered.

Getting goods into the Port of Alaska and out to the rest of the state is a top priority.

I am willing to give something up if it means people in small communities without roads can keep reliable air and/or ferry service.

The ability to respond quickly to snowstorms, landslides, or other needed emergency repairs is a priority.

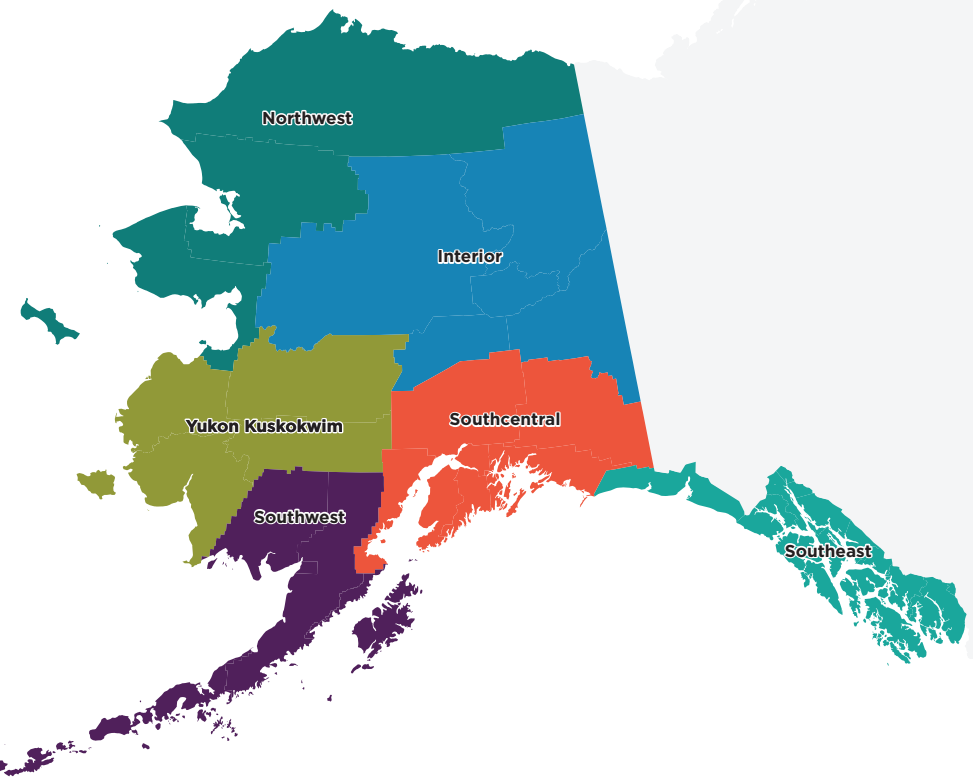
3. What Does Our Future Hold?

A secure future must be built on a shared understanding of how each community's transportation network is linked to the others, and what it takes to keep the whole system moving.

A state of geographic extremes

Alaska's transportation needs and challenges are as varied as the state's geographic regions, which include the arctic coastal plains, massive mountain ranges, river systems, coastal areas, and islands. The geographic landscape also includes active volcanoes and high levels of seismic activity, six distinct climate zones, and some of the planet's most varied extremes of cold, heat, rain, snow, and wind.

This variety makes planning and maintaining a transportation system no easy task. For example, 82 percent of Alaska's communities are not accessible by road. These communities can be reached only by air, sea, river, or overland using all terrain vehicles (ATVs), snow machines, or even sled dogs. Even in communities that do have road access, there are often no alternative routes to use when roads are closed.



Yukon Kuskokwim
56 Rural/Remote Communities

How people get around:
 Water
 Air

How goods are transported:
 Barge (summer)
 Air Cargo

Economy
 Subsistence

Southwest
40 Rural/Remote Communities

How people get around:
 Overland
 Marine Highway
 Air

How goods are transported:
 Barge
 Air Cargo
 Marine Highway

Economy
 Fishing

What current and future trends will influence Alaska in the next 25 years?

The transportation challenges we face in the future will be different from those we have faced in the past. There are high-level local, national, and global external trends that will likely influence the future transportation network for better or worse in the years ahead. These drivers of change have the potential to impact all modes and the entire transportation network, influencing performance, demand, maintenance and operations, and funding.

Southcentral
65 Urban & Rural Communities

How people get around:
 Road/Highway
 Marine Highway
 Air
 Rail

How goods are transported:
 Road/Highway
 Marine Highway
 Air
 Rail

Economy
 Transportation
 Petroleum
 Fishing
 Tourism

Southeast
35 Rural Communities

How people get around:
 Marine Highway
 Road/Highway
 Air

How goods are transported:
 Barge
 Air Cargo
 Marine Highway
 Road/Highway

Economy
 Fishing
 Tourism

Interior
50 Urban & Rural Communities

How people get around:
 Road/Highway
 Rail
 Air
 Water

How goods are transported:
 Road/Highway
 Rail
 Air
 Water

Economy
 Mining
 Tourism
 Military
 Subsistence

Northwest
54 Rural/Remote Communities

How people get around:
 Overland
 Air
 Water

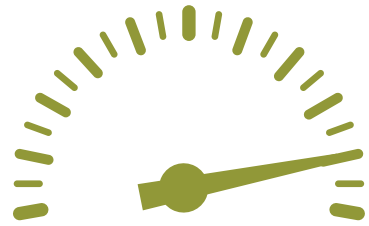
How goods are transported:
 Barge (summer)
 Air Cargo
 Road/Highway

Economy
 Oil
 Subsistence
 Mining

Considering our possible futures

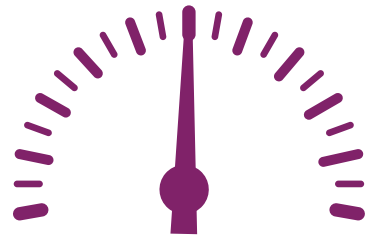
To understand how the drivers of change might influence Alaska, it was important to place them in context. The LRTP project team explored three distinct plausible future scenarios. Through discussions of each scenario, the team identified opportunities and risks to inform the LRTP’s strategic direction, so Alaska can be better prepared regardless of which future becomes reality.

Potential Future Scenarios



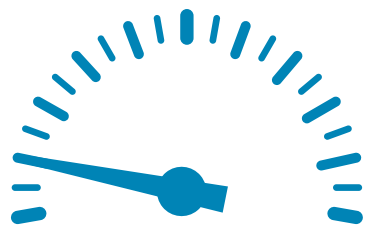
Full Speed Ahead

Growth in air to sea cargo, military presence, natural resource development, and tourism, combined with Alaska’s strategic connections and an efficient freight system positions Alaska for population, workforce, and economic growth. New transportation infrastructure, operation and maintenance funding sources, and skilled workforces will be needed to meet increased and changing demands.



Cruising

The future looks much like Alaska today—business as usual. The economy and population will continue to grow at a low rate with some periods of population loss. Demand for new transportation infrastructure will remain largely unchanged.



Powering Down

The economy stagnates; funding is unstable; and environmental, social, and political threats result in a declining population and workforce. Travel declines, costs rise, deferred maintenance backlogs grow, and mobility becomes unreliable.

What will drive change over the coming decades?

Which of these potential futures comes closer to reality will depend on the interplay of various key drivers of change. Some will be more influential than others.

Top Drivers of Change



Student driver of a delivery truck, source Lee Rodegerdts



Cruise ships and float planes in Juneau, source DOT&PF

Workforce

Specialized workforces are needed to design, build, operate, and maintain the system.

- Trend: **It will be increasingly challenging to find qualified workforces.** Many maintenance and operations personnel are aging out of the job, and it is more and more difficult to find replacements and retain them.
- Trend: **The types of work and workers needed are changing.** DOT&PF needs to plan for people and an organizational structure to train, attract, and retain existing and future employees and respond to new technologies and data.

Economy

Reliable travel choices support a strong economy and healthy communities.

- Trend: **Employment in Alaska’s natural resource, construction, and tourism industries is expected to increase.** Natural resources and mining extraction are expected to grow by 15 percent over the next decade. New natural resource development efforts may require new and/or upgraded transportation infrastructure. Construction and tourism are also expected to grow, leading to further demands on the transportation system. This economic activity is coupled with the substantial increase in air freight movement through ANC.



9th Avenue in Anchorage, source DOT&PF



Unmanned aerial system, source DOT&PF

Contributing Drivers of Change

Funding

Transportation needs for all types of transportation are greater than the funding that's available.

Trend: **Oil production will likely continue to decrease.** Due to the changing global market for oil, Alaska is producing 75 percent less oil now than it did in the late 1980s. Because oil production funded so many of the plans, programs, and construction efforts in the past, this decline in production (and estimated further decline in the future) means that less money overall will be available for transportation-related projects.

Trend: **State DOT&PF funding is expected to remain stable or decline.** State funding of DOT&PF is relatively low overall and needs far exceed available funding. Without additional funding sources, deferred maintenance backlogs will continue to grow.

Trend: **Federal funding will be unpredictable and limited.** Federal funding is the dominant source of revenue for DOT&PF and comes with restrictions on how it can be spent. Any changes in the federal government's funding formula will have outsized effects on Alaska. With the new transportation infrastructure bill, increased funding is projected for the next five years for all modes. It will be important to invest additional funding strategically, so goals are achieved and subsequent maintenance and operations of any new transportation infrastructure can be adequately funded.

Adoption of New Technologies

New technologies are changing how we travel and get our goods, including drone deliveries, real-time tracking of ferries and buses, electric trucks, connected and automated vehicles, and e-commerce.

Trend: **Multiple new technologies will change the way we need to think about transportation.**

- Demand for alternative fuel stations and electric vehicle charging infrastructure is increasing for all modes, especially in urban areas.
- Unmanned aerial systems (UAS) promise to transform how we move freight around the state.
- Connected and automated vehicles are being deployed nationwide.
- Reliability and costs associated with key infrastructure needs, specifically electricity and internet, vary significantly between urban, rural, and remote areas and may pose challenges to the implementation of new technologies.

Trend: **Connectivity needs to be increased via fiber optics, 5G cellular service, and satellite internet options.** A strong communications network is important for transportation system management and innovation.

- It advances intelligent transportation systems to improve safety and mobility for all modes.
- It facilitates trip replacement by telecommuting, telemedicine, and distance learning, which can reduce miles traveled and emissions.
- It supports emerging industries, such as automated vehicles.
- It provides data for performance-based planning and decision-making.



Buckland during a major flood event, source DOT&PF

Climate Change

Climate change is increasing weather events that disrupt transportation systems, creating additional costs.

Trend: **Transportation infrastructure reliability will change.** Changes in the climate and environment are impacting the safety, mobility, and reliability of all transportation systems and increasing costs to construct, operate, and maintain systems. Also, arctic waters are opening up as sea ice melts. Changes may require new planning and engineering techniques.

Population

Alaska's unique geography and economy will continue to influence population trends.

Trend: **Population growth statewide is stagnating.** Population has been in a slow decline since 2016. Despite this, Alaska forecasts future growth.

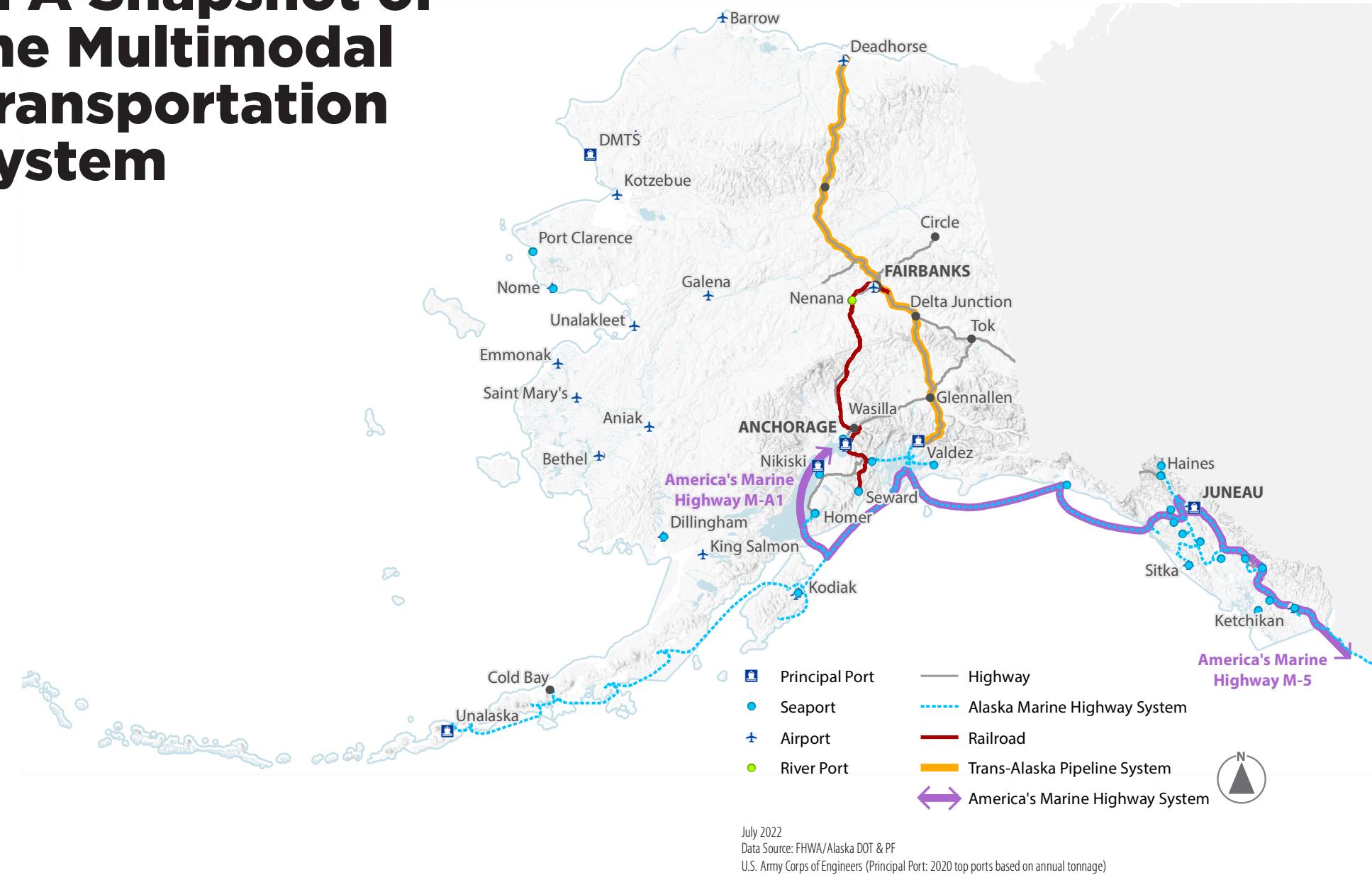
Trend: **Migration.** More rural Alaskans are expected to move to urban areas to escape the higher cost of living. As part of this trend and because of people relocating from Anchorage, the Mat-Su region is forecast to see higher growth than other areas of the state.

Trend: **Out migration.** Losses of employment opportunities have resulted in more working-age people leaving the state.

Trend: **Equity.** Many communities have only a single source of transportation in and out of their communities, impacting quality of life, food security, and resiliency. Alaska Native populations are disproportionately disconnected.

Trend: **Seasonal changes.** Travel and tourism activities benefit our economy but also put seasonal increased demands on transportation infrastructure. Additionally, the labor force is highly seasonal with wide swings in employment, particularly in the commercial fishing, construction, and tourism industries. Many of these seasonal shifts are in remote areas that are currently underserved by transportation infrastructure.

4. A Snapshot of the Multimodal Transportation System



Who is responsible for Alaska's transportation system?

While DOT&PF is directly responsible for certain transportation assets, connecting assets are funded, owned, operated, and/or maintained by metropolitan planning organizations (MPOs), local governments, tribal entities, transit agencies, federal and other state agencies, and private companies.

Across the state, there are:

165 municipalities,¹

144 cities, **19** boroughs, and

1 federally-incorporated reservation that have varying powers when it comes to providing transportation services.

Regional, local, and tribal *governments*, and regional tribal *nonprofits*.

Today, almost all **229** federally-recognized tribes² in Alaska have tribal councils as their governing bodies.

MPOs—regional transportation policymaking and planning bodies with representatives of local, state, and federal governments and transportation authorities—that manage the surface transportation planning process in urban areas, in cooperation DOT&PF.

There are *three* MPOs in Alaska:

- **Anchorage Metropolitan Area Transportation Solutions (AMATS).** AMATS covers the urbanized Anchorage Bowl and Chugiak-Eagle River areas.
- **Fairbanks Area Surface Transportation (FAST) Planning.** FAST Planning covers the urbanized areas of the Fairbanks North Star Borough, including the cities of North Pole and Fairbanks.
- **Mat-Su MPO (currently being formed).** The Mat-Su MPO is expected to cover the cities of Wasilla and Palmer as well as the Lakes area and Knik-Fairview.

Connecting Alaska

Alaska's large network of transportation infrastructure needs ongoing maintenance and, in some cases, reconstruction or replacement to increase efficiencies and safety, mitigate congestion, and improve resiliency and redundancy in the system. This is true for all aspects of the state's transportation infrastructure: roads and highways, public transit, bicycle and pedestrian facilities, aviation systems, Alaska Marine Highway System, and ports and waterways. This requires the joining of the more urban/suburban communities and rural/remote areas into a single system that incorporates and maximizes all modes to enable economic growth, move goods, and improve personal mobility.

5,635 centerline miles

11,894 lane miles of roads/highways

839 DOT&PF owned bridges

9 weigh stations for freight movement

10 ferries

235 state airports

17 harbors

2 international system airports

35 ports of call

74 maintenance stations

Anton Anderson Memorial Tunnel—the longest highway tunnel in North America at **2.5** miles

¹ Source: Alaska's Local Government, Alaska Municipal League

² University of Alaska Fairbanks, Federal Indian Law for Alaska Tribes <https://www.uaf.edu/tribal/112/index.php>

Where does the money for transportation come from?

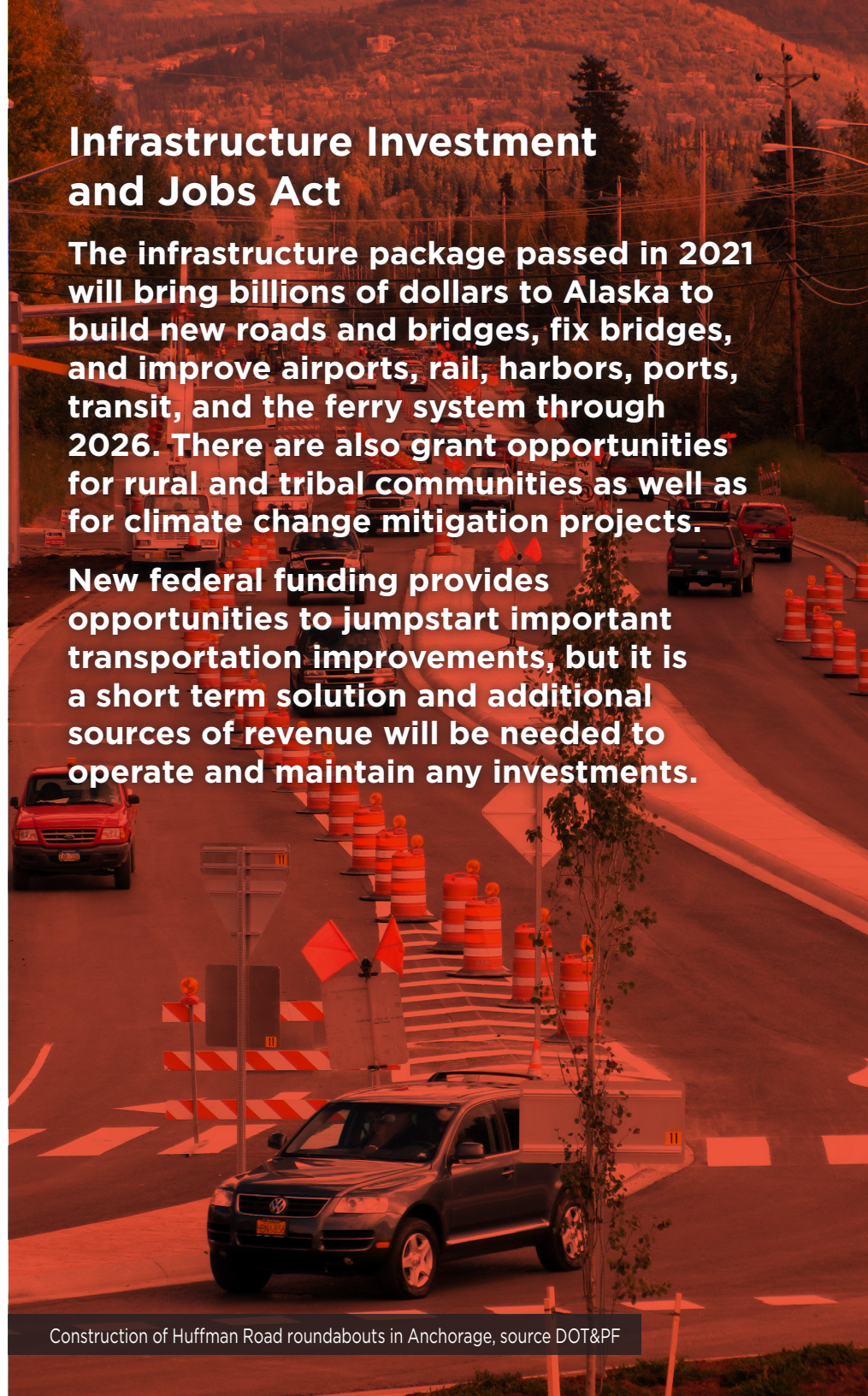
Today, construction, maintenance, and operations needs for all type of transportation are greater than the funding that's available. No one can predict for certain how much funding there will be over the next few decades to address the challenges and opportunities confronting Alaskan communities, but we do know the needs fall into three key areas:

- **Take care of what we already have.** Maintain and protect existing transportation facilities so they remain in good working order to get us where we need to go today and in the future.
- **Improve what we have.** Upgrade existing transportation facilities to the latest standards to improve safety, operations, and reliability.
- **Expand and build new.** Increase access, capacity, connectivity, safety, and resiliency by expanding existing transportation facilities and adding new ones.

Infrastructure Investment and Jobs Act

The infrastructure package passed in 2021 will bring billions of dollars to Alaska to build new roads and bridges, fix bridges, and improve airports, rail, harbors, ports, transit, and the ferry system through 2026. There are also grant opportunities for rural and tribal communities as well as for climate change mitigation projects.

New federal funding provides opportunities to jumpstart important transportation improvements, but it is a short term solution and additional sources of revenue will be needed to operate and maintain any investments.



Construction of Huffman Road roundabouts in Anchorage, source DOT&PF

For every \$1 of state money, Alaska gets \$9 in federal money.

Federal Funding

Federal funding is the dominant source of revenue and comes with restrictions on how it can be spent. The federal government typically does NOT fund transportation infrastructure operations and maintenance.

Federal money can be used for...

- Roads and bridges
- Airports
- Ports
- Rail
- Transit and ferry projects, including new buses and ferries

State and Local Funds

State and local funds are used as a match to get federal dollars and to pay for operations and maintenance of existing facilities.

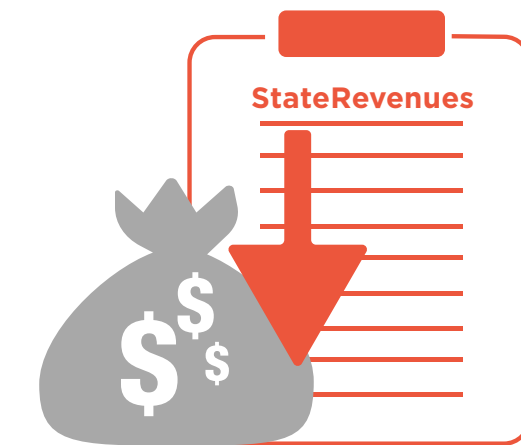
State money can be used for...

- Roads and bridges
- Rural airports
- Ferries
- Trails and pathways
- Facilities, like maintenance buildings

Operations and maintenance: Keeping things running

Operations and maintenance includes all the activities needed to keep highways, bridges, airports, and harbors in good condition and safe for the traveling public. This funding category includes highway and airport snowplowing and snow hauling, avalanche control and mitigation, vegetation management, guardrail repair, sign maintenance, street/traffic light repair, drainage structure maintenance, and fence maintenance. Operations and maintenance personnel also respond to all emergency and weather-related situations, such as snow and ice that needs to be removed, fallen trees, mud and landslides, and roadway or airport flooding.

Operations and maintenance are funded through the state budget. As state revenues decline, there is less money available for maintenance. Deferred maintenance needs will continue to grow. Continuing to provide the same level of service with less money will become increasingly challenging for all modes. Many operations and maintenance personnel are also aging out, and it is more and more difficult to find qualified replacements. This will be an issue in coming years.



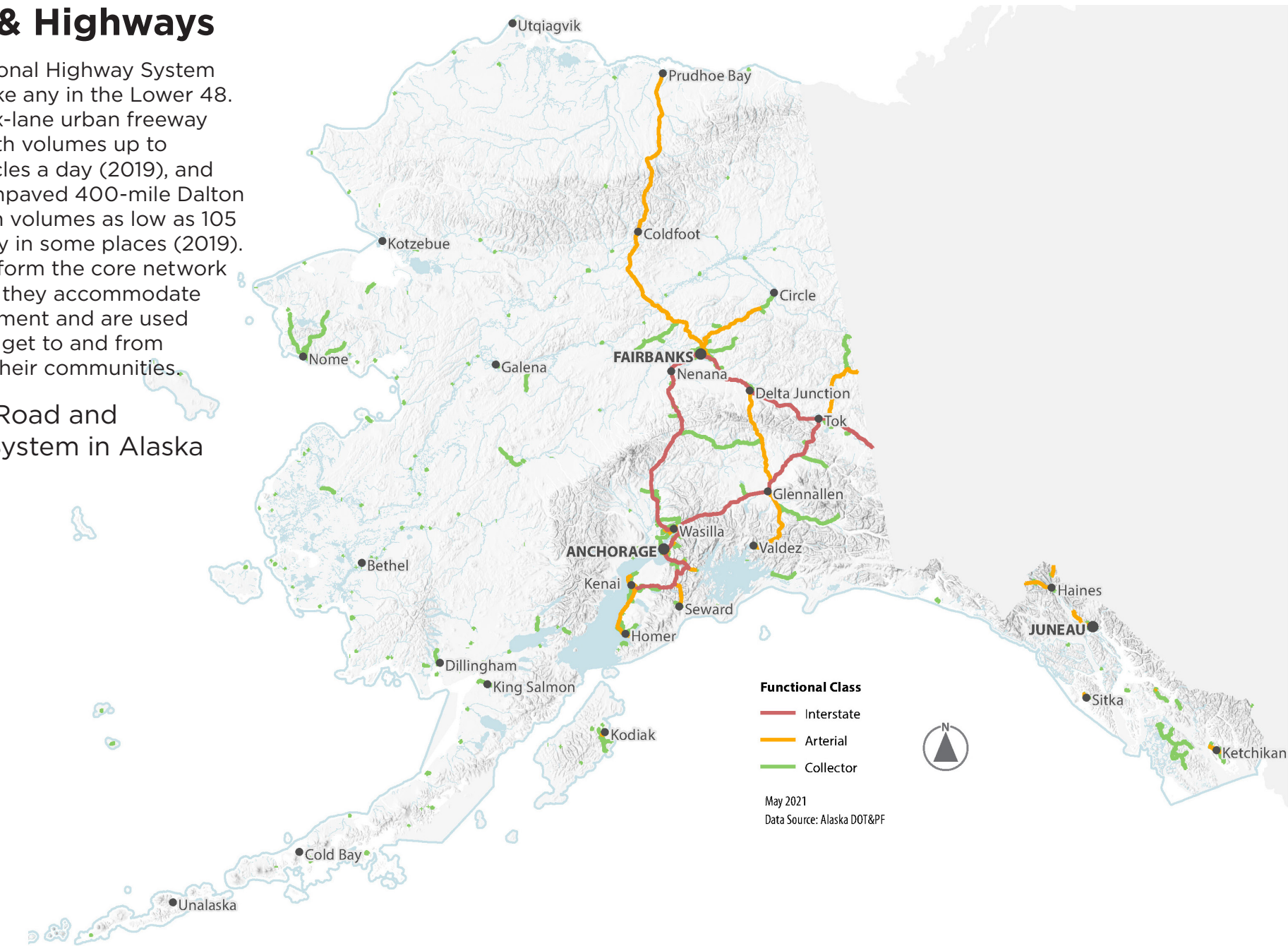


The Parks Highway, Mat-Su Borough, source DOT&PF

Roads & Highways

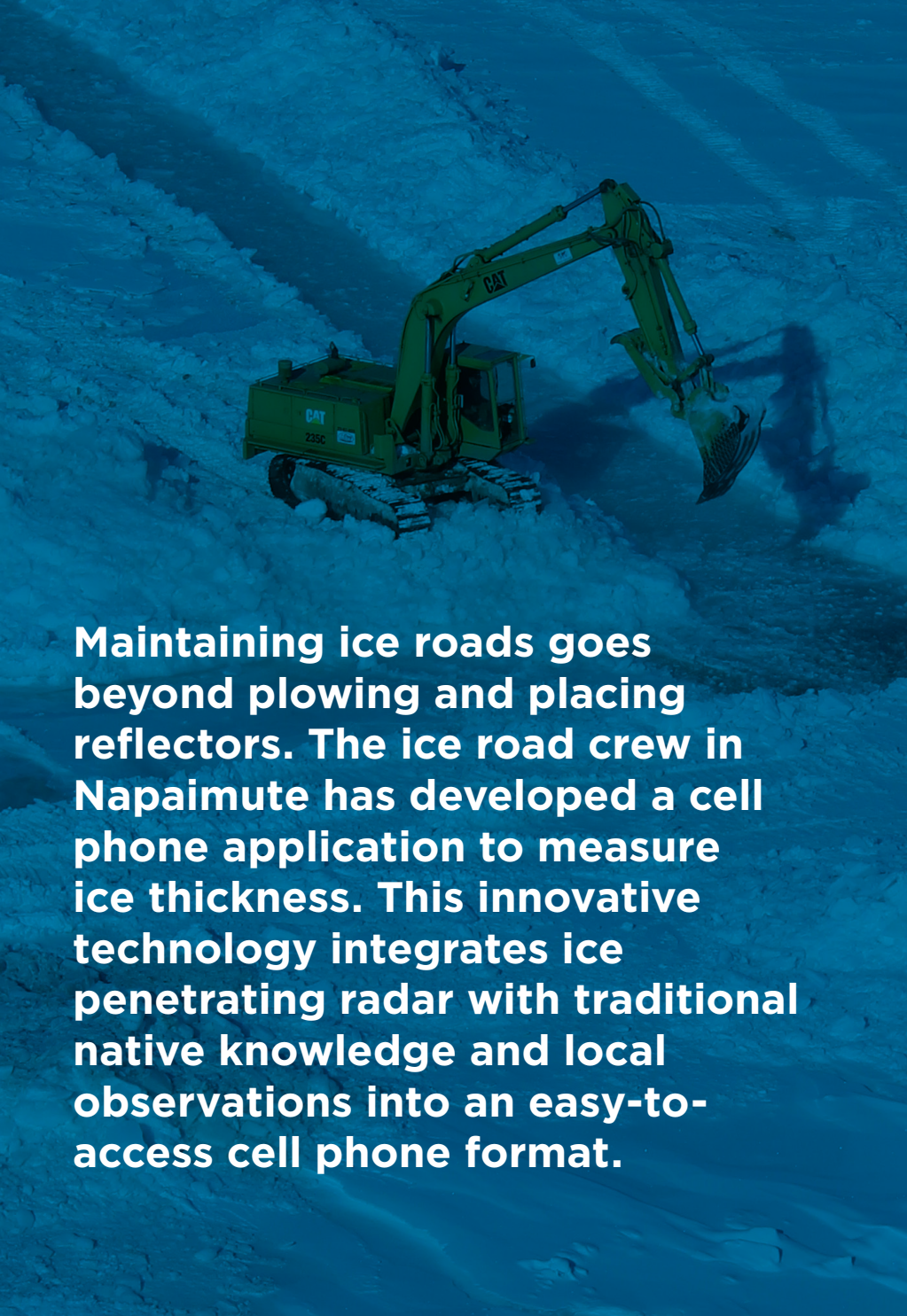
Alaska's National Highway System (NHS) is unlike any in the Lower 48. It includes six-lane urban freeway segments with volumes up to 68,000 vehicles a day (2019), and the mostly unpaved 400-mile Dalton Highway with volumes as low as 105 vehicles a day in some places (2019). These roads form the core network for the state; they accommodate freight movement and are used by people to get to and from work within their communities.

Figure 2: Road and Highway System in Alaska



Key Facts & Trends

- **DOT&PF owns more of the roadway centerline miles** than any other agency with 5,635 of the total 17,735 miles (32 percent).
- **The Kuskokwim Ice Road has hundreds of miles of drivable ice** linking villages to connect people, respond to medical emergencies, and move goods, providing a safe and cost-effective alternative when poor weather prevents airplanes from flying.
- Pavement conditions on **71 percent of the state's roads are rated in fair condition** and 26 percent in good. The majority of the state's bridges are rated in fair condition.
- While there are fluctuations from year to year, serious-injury crashes are trending downward but **traffic fatalities are on the rise**.
- Focused efforts on **four designated safety corridors** have yielded positive results. The Corridors include Seward Highway, Potter Marsh to Girdwood (MP117 to MP87); Parks Highway, Wasilla to Houston (MP44.5 to MP53); Sterling Highway, Sterling to Soldotna (MP83 to MP93); Knik-Goose Bay Road, Palmer-Wasilla Highway to Point MacKenzie Road (MP75 to MP17).



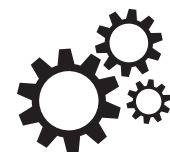
Maintaining ice roads goes beyond plowing and placing reflectors. The ice road crew in Napaimute has developed a cell phone application to measure ice thickness. This innovative technology integrates ice penetrating radar with traditional native knowledge and local observations into an easy-to-access cell phone format.

Dalton Highway, Ice Flood Mitigation April 2015, source DOT&PF



Funding

Construction and rehabilitation of roads and bridges are primarily funded through the Federal-Aid Highway Program apportioned among the states by formula. These funds are subject to a state match—typically around 10 percent. State funds must be used for operations and maintenance of roads and bridges.



Key Opportunities

- **Adequately fund operations and maintenance.** Operations and maintenance funding has decreased 20 to 30 percent in the past five years, creating a substantial increase in deferred maintenance. Any expansion of the roadway network to improve efficiencies, access new areas, and/or increase resiliency will increase this backlog unless adequate and predictable funding is established for operations and maintenance.
- **Incorporate risk and resiliency considerations into planning, programming, and project development, especially on multimodal corridors and key supply chain routes.** Lack of roadway network redundancy means that infrastructure damage or network interruptions resulting from natural or human-made events could disable a connecting roadway and cut communities and freight off for long periods.

- **Strengthen coordination with rural and tribal leaders.** Coordination and alignment between DOT&PF and rural and tribal leaders could be improved with the development and implementation of tribal safety plans.
- **Strengthen analytical and reporting capabilities,** including data reliability, timeliness, and accessibility, to support asset management and federal reporting requirements.
- **Incentivize the transfer of state-owned and/or state-maintained local facilities that have no regional or statewide function to local ownership and local financing mechanisms.** The majority of DOT&PF centerline miles (54 percent) are local or collector roads and not of statewide significance.
- **Continue to preserve and identify opportunities to improve connections** between transportation systems for movement of people and goods, like ice roads.



Capital Transit serves the City and Borough of Juneau, source Heather Bryant/KTOO Public Media

Transit

Communities are stronger when everyone has access to reliable and affordable transportation. Transit fills this role by connecting people to jobs, health care, schools, grocery stores, housing, and more.

Many transit trips also connect to other essential modes. This could mean a walk or bike ride to a local public transportation stop or a bus connection to an airport or ferry station.

While transit is an important travel mode, most communities in Alaska do not have transit service.

Key Facts & Trends

- **Ridership is trending downward.** This correlates with the decreasing population in the state and nationwide trends often linked to the decrease in the cost of gasoline.
- The nationwide expected **useful life for public transportation vehicles is typically 12 years.**³
- Several public transportation agencies' **average fleet age exceeds 12 years.**
- The first electric school bus in Alaska, serving the Tok school district, is operating well in harsh winter weather. This **pilot is paving the way for additional electric transit vehicles** in Alaska.
- **Funding for maintenance, capital, and operations projects is a challenge.** Few public transportation systems are currently operated with a dedicated funding source.



Valley Transit serves the Mat-Su Valley and a commuter route to Anchorage, source DOT&PF

Funding

Funding for public transportation comes from federal, state, and local sources. Most providers' funding primarily consists of federal funds with smaller providers having little in state or local funding to use as a local match. The fact that many federal grant programs require a local match puts public transportation providers in Alaska at a disadvantage since they can't leverage match-required funding sources. Tribal Transit relies heavily on federal funding as well and is sensitive to changes at the federal level. Larger providers, such as those that serve Anchorage, Fairbanks, and Juneau, largely rely on local funding for their services.

Key Opportunities

- **Adequately plan for and provide first- and last-mile public transportation.** Improving connectivity to other modes, including active transportation, rail, ferries, and ports, will make transit an attractive option for more people.
- **Develop a Transit Plan as part of the family of plans with an emphasis on stable funding.** Providers that rely on state sources experience difficulties as the overall economy fluctuates and state revenue declines. The IIJA federal funding bill provides dedicated transit program funding, particularly for rural and tribal communities for the next five years. A shared statewide vision would assist with allocating funds and leveraging required federal match dollars.

- **Monitor ridership and performance to support providers so they can better adapt to the changing needs and demands for public transportation.** COVID-19 impacts to commute patterns, demographic trends, and remote work are yet to be seen.
- **Proactively plan for workforce needs.** It is a challenge to retain and attract public transportation professionals, drivers, and maintenance personnel, especially in rural areas.

³ Federal Transit Administration. Useful Life of Transit Buses and Vans. April 2007. https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/Useful_Life_of_Buses_Final_Report_4-26-07_rv1.pdf



Cyclists and a pedestrian near the University of Alaska Fairbanks, source DOT&PF

Active Transportation

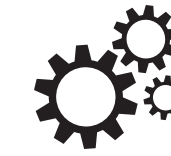
Active transportation connects people to everyday destinations and other travel modes like public transit. It attracts tourists and creates economic development opportunities in both urban and rural areas. Active transportation also plays an important role in increasing health, fairness, and opportunity for low-income communities and communities of color to access affordable and reliable transportation.

Key Facts/Trends

- Continuous progress has been made in providing sidewalks, multi-use pathways, and bike lanes as part of roadway projects, primarily in urban areas.
- There is increased interest in active transportation and recreation in the urban areas of Alaska, partially spurred by the COVID-19 pandemic. Anchorage recorded more than a doubling of active transportation trips between 2017 and 2020.
- Bicycle and pedestrian fatal and severe-injury crashes are trending upwards statewide.
- In rural communities, tourists and seasonal workers can significantly increase pedestrian activity.

\$ Funding

Funding for active transportation facilities comes primarily from federal sources, often as part of a roadway project. State, local, tribal, and private funding is also used as match dollars to leverage federal funds or, in some cases, to build entire projects.



Key Opportunities

- **Implement the 2019 Alaska Statewide Active Transportation Plan (ASATP) and local active transportation plans.** The ASATP specifies several laws, policies, and procedures that could enhance the safety of all road users, such as a complete streets policy, a safe passing distance law, and a vulnerable user law.
- **Gather data on pedestrian and bicycle facilities, volumes, and safety.** There is no statewide data set of pedestrian and bicycle facilities or volumes. This hinders an agency's ability to make informed decisions regarding facility needs and priorities. Pedestrian and bicycle crashes are also likely underreported, especially in rural areas.
- **Coordinate and collaborate with local agencies and jurisdictions on priority routes for winter maintenance.** With decreasing state funding, maintaining these facilities will become more difficult, especially in urban areas where demand for year-round use is increasing.
- **Focus on connecting different modes of transportation with pedestrian and bicycle facilities to accommodate residents and visitors.** For example, in rural hub communities, active transportation infrastructure connects people who do not have vehicles to services and/or seasonal employment. As noted in the Southwest Alaska Transportation Plan Update, non-resident pedestrians, such as tourists and seasonal workers, can significantly increase pedestrian activity in small communities but may not understand how the local system functions.

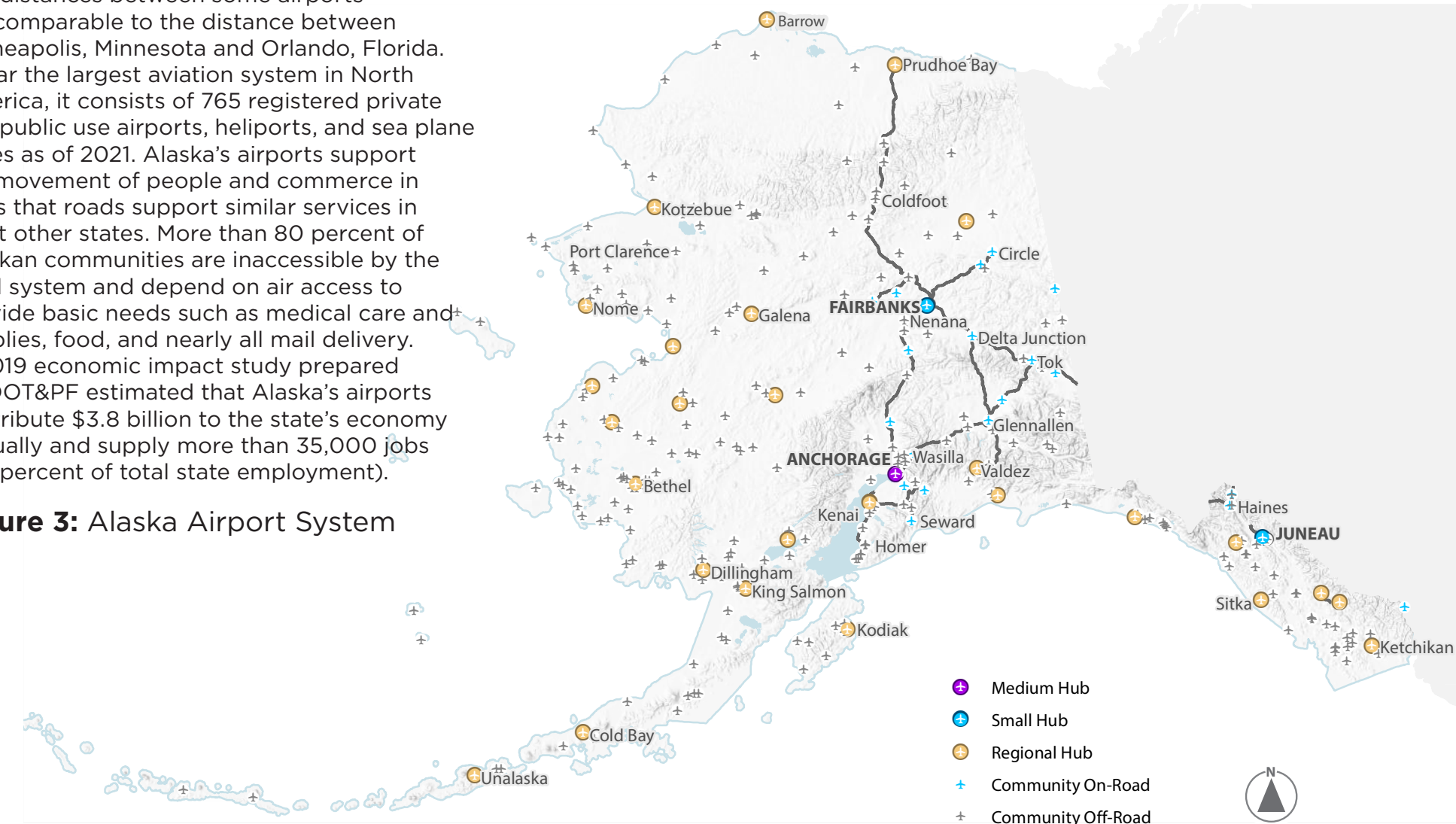


Fairbanks International Airport, source DOT&PF

Aviation

Alaska's aviation system is unlike any other in the United States. Airport services span from the North Slope to the Aleutian Chain. The distances between some airports are comparable to the distance between Minneapolis, Minnesota and Orlando, Florida. By far the largest aviation system in North America, it consists of 765 registered private and public use airports, heliports, and sea plane bases as of 2021. Alaska's airports support the movement of people and commerce in ways that roads support similar services in most other states. More than 80 percent of Alaskan communities are inaccessible by the road system and depend on air access to provide basic needs such as medical care and supplies, food, and nearly all mail delivery. A 2019 economic impact study prepared by DOT&PF estimated that Alaska's airports contribute \$3.8 billion to the state's economy annually and supply more than 35,000 jobs (7.8 percent of total state employment).

Figure 3: Alaska Airport System



Data Source: DOT & PF Alaska Aviation system Plan May 2022

International Airport System

Alaska's geographic position makes it an ideal location for an international gateway for air cargo and commerce. Approximately 90 percent of the industrialized northern hemisphere is within a 9.5-hour flight from Anchorage.

Large portions of Alaska's statewide passenger and cargo traffic is routed through two major airports: ANC and Fairbanks International Airport (FAI). ANC and FAI are part of the AIAS, which is owned and operated by DOT&PF. Juneau International Airport (JNU), while also an international airport, is owned and operated by the City and Borough of Juneau and therefore not part of the AIAS.

Key Facts/Trends

- **ANC is the fourth busiest airport in the world for cargo** throughput and the second busiest in the United States for landed weight.
- **ANC typically serves over 5 million passengers annually.** In 2021, more than 4.5 million people passed through ANC.
- **Over 1.1 million passengers** pass through FAI annually.
- **Freight movement through ANC and FAI has increased substantially** since the beginning of the COVID-19 pandemic as e-commerce continues to grow.
- **In Anchorage, 1 in 10 jobs is tied to ANC** for a total of 26,000 jobs.
- **In the Fairbanks North Star Borough, 1 in 9 jobs is tied to FAI** for a total of 4,300 jobs.

\$ Funding

ANC and FAI are self-sustaining in that these airports use ZERO state dollars. Both are wholly funded by Alaska's largest enterprise fund, the International Airports Revenue Fund (IARF). All operational and capital costs are covered by the carriers, concessionaires, and other users of the airports and their properties.

Key Opportunities

- **Leverage Alaska's location.** Moving forward, there will continue to be opportunities to leverage Alaska's ideal geolocation (specifically Anchorage and Fairbanks) within the worldwide aviation system to provide continued commercial air services, specifically for Asian countries.
- **Position ANC as regional mobility hub where different types of transportation come together—a hub that will create an air-to-sea cargo route through Alaska.** Every week, ocean vessels leave the Port of Alaska bound for the Port of Tacoma filled with empty containers and truck trailers. These could be used to increase supply chain capacity by transloading in Anchorage to an ocean vessel for transport to Seattle/Tacoma, boosting Anchorage's, and therefore Alaska's, overall economic vitality.
- **Advocate for and implement new technologies and systems** to reach the future goal of carbon-neutral air transportation in response to climate change.

Rural Aviation

The Rural Airport System includes commercial and general aviation airports owned by DOT&PF (outside the AIAS), as well as public, military, and private aviation facilities. Air service is the lifeline that connects all Alaskans to other communities in the state, the Lower 48, and the world. Alaska's airports serve the transportation needs of state residents, support the movement of materials and goods, contribute substantially to the economy, and enable delivery of critical medical services. Tens of thousands of pounds of freight are flown to remote villages from major hubs in Anchorage and Fairbanks through regional hub airports like Aniak, Bethel, Kotzebue, and Nome.

Elim Airport, sitting above Norton Bay, source DOT&PF

4 Rural Airport Lighting Study
https://www.alaskaasp.com/media/3783/rural_airport_lighting_study_final_20210630r1.pdf

Key Facts/Trends

- **251 communities are exclusively accessed by air.**
- **In April 2020, rural air service within Alaska was impacted severely with a 90-percent service reduction resulting from the bankruptcy of the state's largest regional air carrier.** While the regional air carrier is now operational, this scenario could happen again, cutting off essential services to remote communities that do not have redundant transportation options.
- **The U.S. Postal Service's Alaska Bypass Program (ABS) is critical to providing fresh food and basic supplies to communities** that could not otherwise afford to ship goods at higher air freight prices. The ABS also provides more frequent air passenger service at lowered fares.
- **The Essential Air Service (EAS) Program is a federally-directed program** to provide air service to approximately 60 underserved communities.
- **Alaska is testing UAS at 38 airports** to improve safety and resiliency and to reduce costs. Missions are flying cargo (with no pilots), delivering medical supplies, supporting search and rescue, and conducting airport inspections.
- **114 automated weather observing systems (AWOS) are installed at Alaska's DOT&PF rural airports**—92 airports are without an AWOS and eight airports have planned AWOS installations in the near future.⁴
- **Approximately 55 percent of airport lighting systems** are at or near the end of their economic life.

Funding

Maintaining the rural system – With 235 rural airports to operate and maintain, DOT&PF must constantly prioritize where limited federal Airport Improvement Program funds will be spent to meet federal requirements, maintain existing infrastructure, and address growth in operations at an airport. Often new capital projects are required at a significant cost to address runway, taxiway and safety improvements.

Many Alaskan airports receive funding through the Federal Aviation Administration's (FAA) Airport Improvement Program (AIP), which provides grants for the planning and development of public-use airports to enhance safety, capacity, security, and sustainability. Other funding sources include Alaska's General Fund, local airport sponsor funds, and airport lease rates and fees. Landing fees are not collected at DOT&PF rural airports.

Key Opportunities

- **Continue to improve the resiliency of rural airports with innovations in technology and seasonal solutions, like ice roads.** Outside of major cities like Anchorage and Fairbanks, the lack of local supplies and infrastructure makes airport development challenging. Rural airport construction and maintenance activities require shipping equipment and materials to remote sites, which can in some cases be accomplished via seasonal ice roads.
- **Continue to support installation of automated weather stations and certified instrument approach procedures to provide access to rural airports during poor weather conditions.** Combined, these two efforts will increase the safe and efficient movement of goods and people in rural communities.
- **Continue to advocate for the federal ABS and EAS programs,** which play significant roles in ensuring minimum levels of passenger and freight service at lower costs.
- **Proactively plan for workforce needs.** The vast majority of rural airports do not have the resources to provide active airport management, including airfield inspections and oversight of maintenance and capital improvements.



Alaska Marine Highway System MV Malaspina in Auke Bay (Juneau), source Frank P. Flavin

Alaska Marine Highway System

The Alaska Marine Highway System (AMHS) stretches over roughly 3,500 miles of coastline from Bellingham, Washington to Unalaska in the Aleutian Island chain. The ferry system plays a significant role in connecting communities that would otherwise be cut off from the rest of the state and reducing the cost of living by giving residents of smaller communities access to lower-priced goods and services available in larger, nearby communities. The fleet of vessels operate year-round to provide essential transportation to over 35 coastal communities. Vessels are designed to carry passengers and vehicles ranging in size from motorcycles to large freight containers.

Figure 4: The Alaska Marine Highway System



Key Facts & Trends

- **The AMHS includes nine active ferries, serving 33 ports** in Alaska; Prince Rupert, British Columbia; and Bellingham, Washington.
- Since 2016, **AMHS traffic volumes are trending steadily downward**.
- **The pandemic hit ferry service hard.** The AMHS served 52,196 passengers and 27,006 vehicles in 2020, down from 190,118 passengers and 77,203 vehicles in 2019.
- **Reliability is an issue** because of mechanical failures due to an aging fleet and weather delays. AMHS ferry schedules have varied from year to year based on available funding levels and operating budgets.
- **The AMHS is currently the only marine route recognized as a National Scenic Byway and All-American Road.**



Cruise ship in the Seward Harbor, source DOT&PF

Funding

The AMHS uses a combination of federal, state, and fare box revenue to operate and maintain the system.

Key Opportunities

- **Develop a statewide Ferry Plan as part of the family of plans.** The IJJA includes ferry-specific funding, including funds for a new ferry and a program to fund pilot-project electric or low-emitting ferries. A provision in the bill requires at least one of those pilot tests be conducted in the state with the most qualifying marine highway system miles—Alaska. A statewide plan would identify key needs and funding sources beyond the five years covered by the IJJA.
- **Adequately fund operations and maintenance.** AMHS is challenged today with operating and maintaining the system and providing reasonable levels of service at a cost the state can afford. This includes vessel refurbishment and recertification to keep vessels safe and compliant with federal regulatory standards and attractive to customers.
- **Proactively plan for workforce needs.** There is a nationwide shortage of maritime workers to operate and maintain ferries.



Skagway Ferry Terminal, source DOT&PF

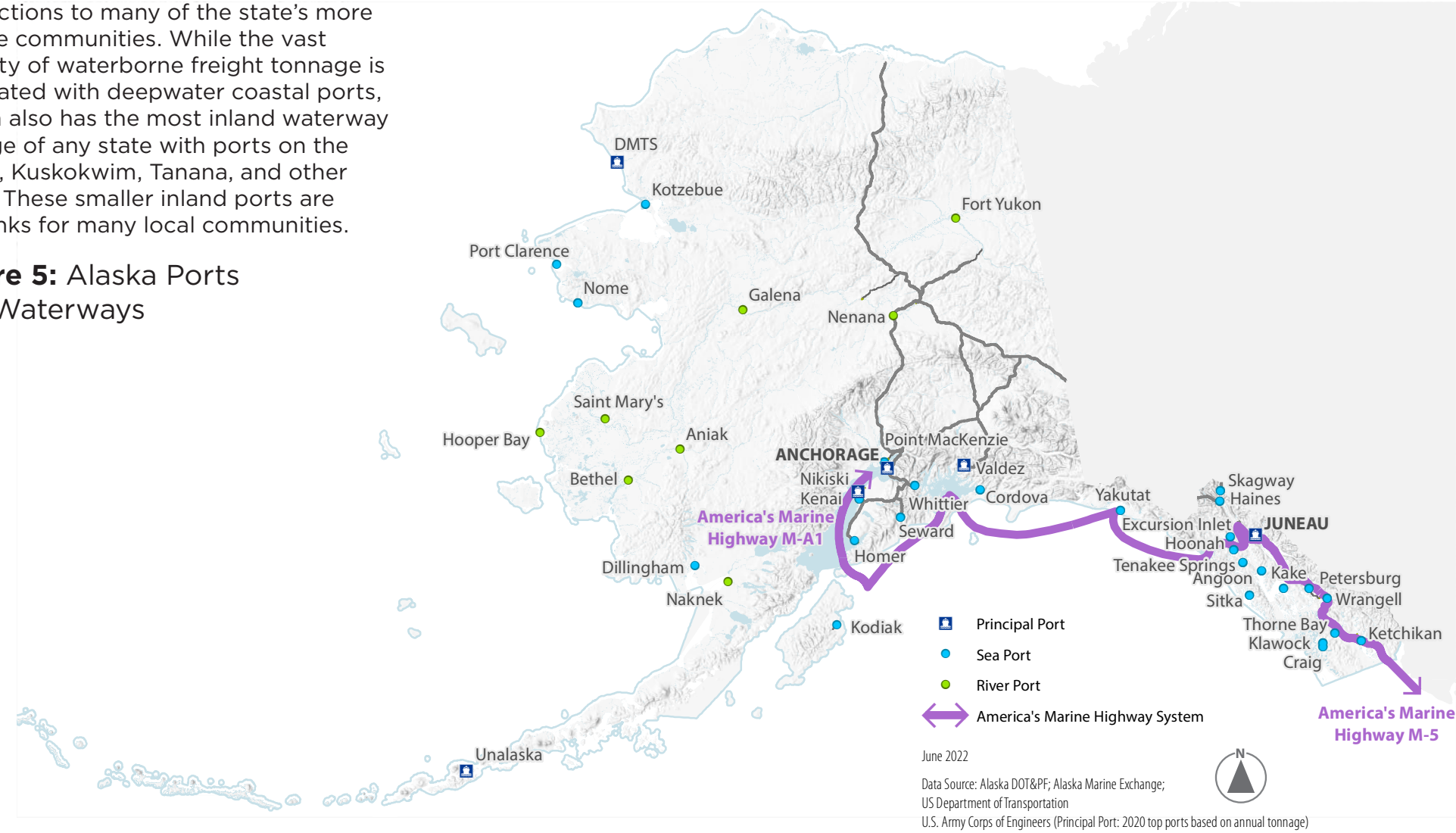


South Harbor Road, Valdez, source DOT&PF

Ports & Waterways

Alaska's ports and waterways provide transportation for essential services, recreation, tourism, and economic development. They provide critical connections to many of the state's more remote communities. While the vast majority of waterborne freight tonnage is associated with deepwater coastal ports, Alaska also has the most inland waterway mileage of any state with ports on the Yukon, Kuskokwim, Tanana, and other rivers. These smaller inland ports are vital links for many local communities.

Figure 5: Alaska Ports and Waterways



Key Facts & Trends

- **476 ports and harbors** serve communities, fishing fleets, and other commercial and recreational purposes.
- **Five commercial ports are ranked among the top 150 busiest ports in the nation by volume** (short tons): the Port of Alaska (Anchorage), the Port of Valdez, the Port of Nikiski, the Port of Unalaska, and the Delong Mountain Transportation System (at Red Dog Mine).
- **The Port of Alaska handles five times more inbound marine cargo than all other Southcentral ports** and is a “U.S. Commercial Strategic Seaport” that supports Department of Defense missions in Alaska, the Pacific, and the Arctic.
- **Alaska has the most inland waterway mileage of any state**, with ports on the Yukon, Kuskokwim, Tanana, and other rivers.

90%
of Alaska's
population
is served by the
Port of Alaska

Port of Alaska, source Erik Hill

Funding

The DOT&PF does not own or operate ports. Most ports are either privately owned or are owned and operated by local municipalities.

Key Opportunities

- **Strengthen connections between ports and roadways, rail, and air service.** This will result in safety improvements and more efficient and cost-effective movement of goods and people.
- **Explore a regional port authority to address resiliency of all sea and inland ports and their importance in moving Alaskans and the supplies they need.** Port infrastructure is aging and funding for maintenance and improvements does not meet needs.
- **Continue to monitor the Northwest Passage as it grows more viable as a future shipping lane.** Nome has been identified as a strategic deepwater port, and IIJA funding is available to improve its port infrastructure.



Harbor crane in Unalaska, source DOT&PF



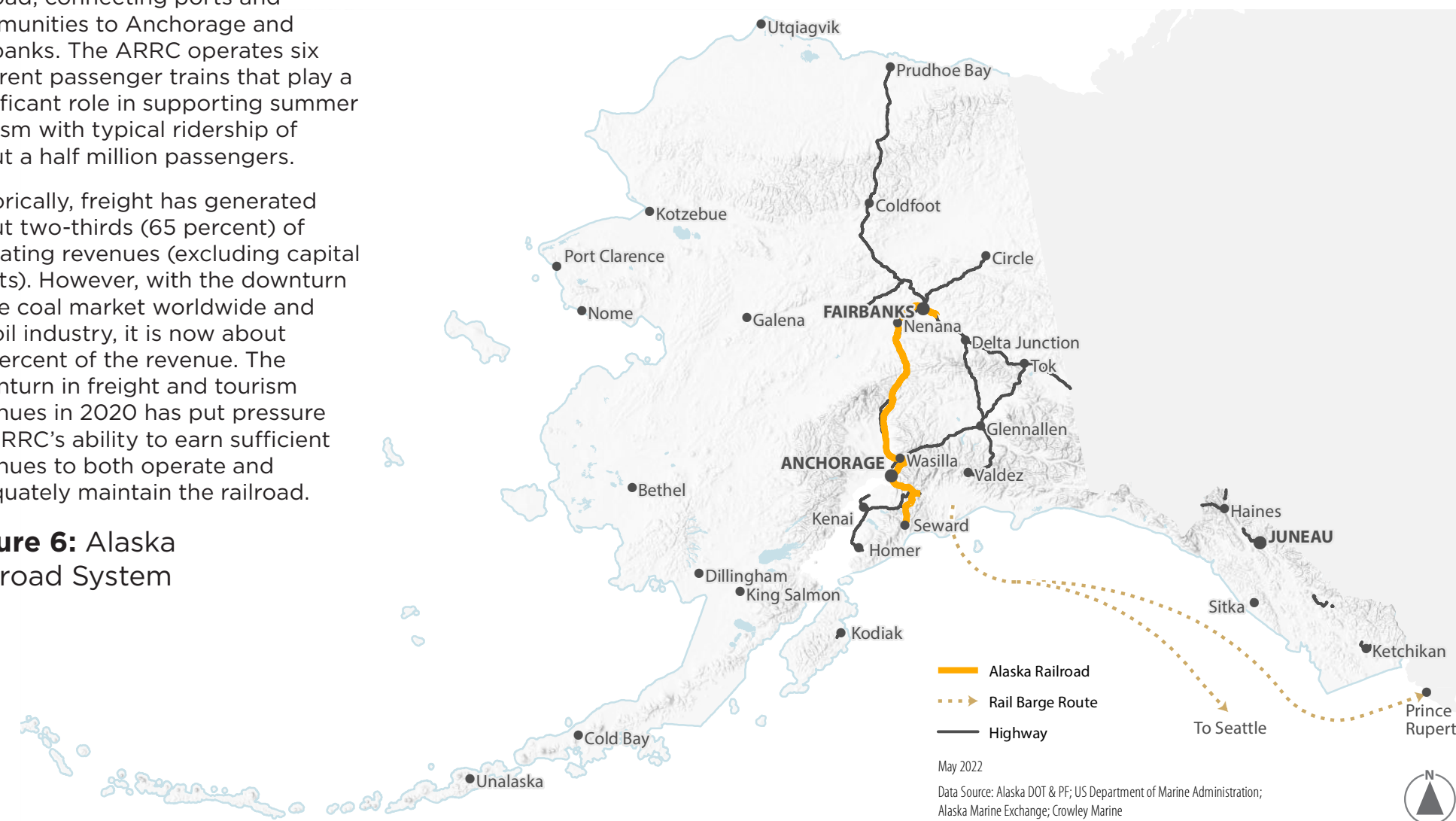
Denali Star train departing Denali National Park, source Timothy Wildey

Rail

Since 1923, the Alaska Railroad Corporation (ARRC) has grown into a full-service freight and passenger railroad, connecting ports and communities to Anchorage and Fairbanks. The ARRC operates six different passenger trains that play a significant role in supporting summer tourism with typical ridership of about a half million passengers.

Historically, freight has generated about two-thirds (65 percent) of operating revenues (excluding capital grants). However, with the downturn in the coal market worldwide and the oil industry, it is now about 56 percent of the revenue. The downturn in freight and tourism revenues in 2020 has put pressure on ARRC's ability to earn sufficient revenues to both operate and adequately maintain the railroad.

Figure 6: Alaska Railroad System



Key Facts/Trends

- **ARRC owns 656 total miles of tracks with rail yards** in Seward, Whittier, Anchorage, and Fairbanks that serve as centralized hubs for connectivity to other transportation modes.
- Based on 522,101 passengers in 2019 (a typical year) and an industry average of 36 passengers per motorcoach, **the Alaska Railroad keeps about 14,500 motorcoaches off single-lane highways during a typical year**, decreasing congestion and road maintenance issues and improving safety.
- **Freight transport of gravel, coal, petroleum, and other extractive products accounts for most of ARRC's freight activity.**



ARRC is a state-owned corporation that is operated as a private business—it does not receive state funding and is not under the purview of DOT&PF. It generates enough revenue from train and real estate services to cover workforce, operations, and infrastructure maintenance expenses.



- **Continue to improve the safety and efficiency of at-grade crossings and connectivity to other modes.** The rail system plays an essential role in tourism and transporting goods with freight revenue generating more than half its operating revenues.
- **Strengthen resiliency of the rail system so it can better withstand hazards.** For example, the 7.1-magnitude earthquake in 2018 caused significant damage to tracks and support facilities. Weather events and wildfires are increasing and disrupting freight and passenger rail services.
- **Monitor the long-term agreement** to support the Alaska to Alberta (A2A) Railway Development Corporation's proposal to build a 1,500-mile rail connection between Alaska and Canada.
- **Engage with planning partners to assess the potential for commuter rail service** between Anchorage and the Mat-Su Valley as well as south to Indian and Girdwood.

5. Getting Results

The LRTP's goals, policies, and actions are aimed at making the best use of existing infrastructure, services, and resources. They support the top priorities of increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.

Goals lay out where DOT&PF wants to go, **policies** outline what needs to be done to reach those goals, **actions** are specific directions—things DOT&PF can do to carry out the policies and support the goals, and **performance metrics** help DOT&PF monitor progress.

These goals and supporting policies and actions will enable Alaska's transportation agencies; service providers; private operators; local, tribal and regional governments; and public members to come together to prioritize limited resources for a consistent, collective impact over the long term.

New data will be needed for some performance measures, and for some policies and actions, performance monitoring might occur incrementally over time. Please reference Appendix E for more information on performance measurement.

The Fixing America's Surface Transportation (FAST) and Moving Ahead for Progress in the 21st Century Act (MAP-21) require that performance measures and targets be established and monitored related to safety, bridge and pavement conditions, air quality, freight movement, and the performance of the NHS. These established consistent national measures are used by all 50 states to track performance and make investment decisions. Alaska is required to make regular reports to Federal Highway Administration (FHWA) on performance data and targets to receive federal funding.

While the FAA also employs performance measures for aviation system planning, those performance measures are not federally required for inclusion in the statewide LRTP. As such, this document focuses on performance measures that are federally required.

2018 Earthquake damage in Anchorage, ramps to International Airport Road, source DOT&PF

The What

Goals for what we do to improve the transportation system, including increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.



Safety

Provide for and continuously improve the safety of the transportation system for all users.

POLICY

Vulnerable Road Users

Place a mission-critical focus on reducing deaths of vulnerable road users, including pedestrians, bicyclists, motorcyclists, and off-road vehicle users.



ACTION

Vulnerable Road Users. Utilize strategies in the Strategic Highway Safety Plan as well as proven and documented countermeasures to reduce serious injuries and fatalities for vulnerable road users.

PERFORMANCE MEASURE

15% reduction in vulnerable road user serious injuries and fatalities

POLICY

Safe Behavior and Awareness

Increase safe behaviors, awareness, and education for all users.



ACTION

Hazardous Habit Awareness. Increase public awareness campaigns on distracted driving, impaired driving, and safety restraints.

PERFORMANCE MEASURE

Continuous reduction in serious injuries and fatalities related to distracted driving, impaired driving, and driving without restraints

POLICY

Safe Infrastructure

Design and build transportation infrastructure and systems to improve safety outcomes.



ACTION

Safety Corridors. Improve designated safety corridors with timely, proven countermeasures.

PERFORMANCE MEASURE

Existing safety corridors eliminated by 2030



ACTION

Aviation Safety Awareness. Continue to promote the Federal Aviation Administration (FAA) program to add/upgrade weather reporting, navigation, and communication equipment at rural airports.

PERFORMANCE MEASURE

Increased number of rural airports with weather reporting, navigation, and communication equipment



ACTION

Complete Streets. Implement a complete streets design model to improve safety and accessibility for all users.

PERFORMANCE MEASURE

Complete Streets policy created and approved



ACTION

Safe System. Implement a safe system approach that takes a holistic, proactive, performance-based approach.

PERFORMANCE MEASURE

Safe System policy created and approved

The What

Goals for what we do to improve the transportation system, including increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.



Mobility and Access

Enhance the quality of life for all Alaskans by strategically supporting all transportation modes to improve accessibility, safety, personal mobility, and interconnectedness with the intent of moving people and goods efficiently and equitably.

POLICY

Equitable Access

Work to ensure that all Alaskans have access to their daily needs, regardless of their ability, location, or income and without discrimination based on race or other identity.



ACTION

Equity Advisory Committee. Establish a statewide advisory committee tasked with expanding action around equity and transportation.

PERFORMANCE MEASURE

Equity Advisory Committee established



ACTION

Bypass Mail. Monitor and take all available actions for the continuation of the U.S. Postal Service Bypass Mail program.

PERFORMANCE MEASURE

Bypass Mail program continued



ACTION

Equity Strategic Plan. Develop a Transportation Equity Strategic Plan and Analysis Toolkit for use in evaluating the benefits and impacts of transportation policies and investments on historically-marginalized populations.

PERFORMANCE MEASURE

Transportation Equity Strategic Plan and Analysis Toolkit developed

POLICY

Interconnectedness

Preserve and identify opportunities to improve connections between transportation systems for movement of people and goods, particularly for disadvantaged people and communities.



ACTION

Filling the Gaps in Access. Adequately plan for and provide first- and last-mile public transportation and active transportation connections by completing gaps between service areas. Identify and quantify intermodal and multimodal gaps and barriers and consider whether a project addresses an existing gap as part of the project selection processes.

PERFORMANCE MEASURE

10% increase in number of first- and last-mile projects programmed



ACTION

Intermodal Connections. Prioritize activities and projects that strategically strengthen intermodal connections between roads, airports, railway, ports, and ferry/transit terminals.

PERFORMANCE MEASURE

Increased number of improved intermodal connections

The What

Goals for what we do to improve the transportation system, including increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.



Economic Vitality

Monitor and consider statewide economic trends, such as job creation, access to jobs, and workforce training, and plan for and invest in transportation infrastructure that facilitates and supports economic growth and lowers the cost of goods and services.

POLICY

Community and Resource Access

Pursue transportation asset and operational improvements that expand access to state, regional, and local resources. Create or improve important community connections to foster economic activity.



ACTION

Access to Resources. Work with stakeholders and the Department of Natural Resources to create a shared inventory of realized and unrealized state, regional or local resources; identify transportation system synergies; and prioritizes investments.

PERFORMANCE MEASURE

Prioritized list of natural resources and transportation investments created



ACTION

Access to Communities. Work with stakeholders, communities, policymakers, and others to identify and prioritize critical community connections that provide new or improved access.

PERFORMANCE MEASURE

Prioritized list of critical community connections, transportation facilities, and services created

POLICY

Access to Opportunities

Pursue transportation asset and operational improvements that will expand access to economic opportunities, jobs, and core services.



ACTION

Economic Connections. Improve the resiliency of transportation connections to established and emerging economic activity centers and tourist destinations.

PERFORMANCE MEASURE

Increased number of and/or resiliency of connections



ACTION

Military Connections. Support the changing mobility and connectivity needs of Alaska's military installations.

PERFORMANCE MEASURE

Projects pursued or supported that positively impact Alaska's military installations

POLICY

Ports Focus

Advocate for the ports as a key component in the state system.



ACTION

Port Authority. Evaluate creation of regional port authorities and/or a state port authority and consider the benefits of institutionalizing management of these facilities.

PERFORMANCE MEASURE

State and/or regional port authority studied

The What

Goals for what we do to improve the transportation system, including increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.



State of Good Repair

Plan for full life cycle costs across the transportation system, including planning, construction, operation, and maintenance to improve funding allocation in a consistent and effective manner.

POLICY

Strategic Preservation Practices

Employ long-term and life cycle analyses to inform policy choices.



ACTION

Life Cycle Costs. Include consideration of long-term maintenance, operations, and life cycle costs for any modernized, expanded, or newly proposed facility.

PERFORMANCE MEASURE

Life cycle costs included in programming



ACTION

System Reinvestment Strategy. Establish a long-term system reinvestment strategy that includes criteria to replace or remove infrastructure from service at the end of its life.

PERFORMANCE MEASURE

Reinvestment strategy and criteria developed

Proactively keep what we have in a state of good repair.



ACTION

Asset Management and Preservation. Implement a formal and consistent process for linking asset management and preservation goals to project selection and scoping to reduce needed maintenance.

PERFORMANCE MEASURE

Asset Management process implemented

POLICY

Asset Management

Address the growing backlog of maintenance and preservation projects at state and local levels, prioritizing investments in the existing system before allocating funds to expand it.



ACTION

Standardized Asset Management. Standardize, measure, and report asset management practices that advance transportation infrastructure resilience.

PERFORMANCE MEASURE

Transportation Asset Management Plan (TAMP) updated to address transportation infrastructure resilience



ACTION

Modernized Asset Management. Modernize asset management practices by leveraging new technologies and data.

PERFORMANCE MEASURE

Reduced deferred maintenance backlog

Apply asset management best practices to preserve the existing transportation system.



ACTION

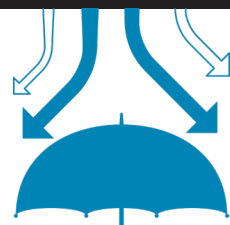
Maintaining State Assets. Implement data-driven management systems to monitor the quality of all transportation assets.

PERFORMANCE MEASURE

*10% increase in facilities in good or 'near-good' condition
10% reduction of facilities in poor or 'near-poor' condition*

The What

Goals for what we do to improve the transportation system, including increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.



Resiliency

Assess risk and invest in solutions to develop a transportation agency and system that will adapt to and recover from the effects of climate change, natural disasters, and other disruptions.

POLICY

Resilient Agency

Plan for current and future demands for transportation-related workforce and identify gaps in workforce skills and availability.



ACTION

Workforce Resiliency Plan. Create a five-year workforce plan that outlines immediate and long-term personnel and workforce needs to deliver transportation and public infrastructure.

PERFORMANCE MEASURE

Workforce Resiliency Plan developed



ACTION

Ways of Working. Adapt transportation occupations to reflect the changing nature of work, including technology, flexible hours, remote work, and data.

PERFORMANCE MEASURE

Indicators of adaptation, such as new technology and data used and flexibility in job requirements



ACTION

Position Descriptions. Update job descriptions and positions.

PERFORMANCE MEASURE

Job descriptions and positions updated

POLICY

Resilient Infrastructure

Improve the agility of the transportation system during emergencies and disruptions by expanding real-time information sharing; enhancing system management; providing more multimodal options; and supporting greater redundancy for critical infrastructure.



ACTION

Resiliency Plan. Develop a Resilience Improvement Plan that provides a unified framework of policies, protocols, and standards to help DOT&PF and its partners plan, prepare, and adapt to natural and man-made hazards and events.

PERFORMANCE MEASURE

Resilience Improvement Plan completed



ACTION

Port of Alaska Resiliency. Raise awareness of the statewide significance of the Port of Alaska as critical infrastructure.

PERFORMANCE MEASURE

Increased state funding to port and intermodal connections



ACTION

Resiliency in Project Selection. Incorporate resiliency factors into performance-based planning and programming frameworks.

PERFORMANCE MEASURE

Resiliency factors included in evaluation criteria for project selection

Incorporate risk and resiliency considerations into planning, programming, and project development, especially on multimodal corridors and key supply chain routes.



ACTION

At-Risk Facilities. Identify and inventory assets that are vulnerable to flooding and inundation, and develop adaptation strategies, such as reconstruction, relocation, and protective infrastructure, to address existing and potential future weaknesses.

PERFORMANCE MEASURE

Assets inventoried and prioritized



ACTION

At-Risk Facilities in Asset Management. Expand asset management decisions to address the long-term costs of known vulnerabilities, such as the need for retrofitting existing facilities or repairing certain facilities multiple times.

PERFORMANCE MEASURE

Increased time between rehabilitation/reconstruction projects

The What

Goals for what we do to improve the transportation system, including increasing safety and efficiency, keeping life cycle costs as low as possible, and increasing travel choices and system resiliency.



Sustainability

Promote a sustainable, clean, equitable transportation system to reduce costs to consumers and businesses and provide wider social and environmental benefits.

POLICY

Clean Transportation

Prepare for alternative fuels (hydrogen, propane, and natural gas) and support electric vehicle (EV) charging infrastructure and adoption.

Alternative Fuel Corridors. Identify alternative fuel corridors (AFCs).

PERFORMANCE MEASURE
AFCs identified

Statewide Plan. Develop a Statewide Zero-Emission Vehicle and Clean Transportation Roadmap for all modes, set up a network to facilitate access and reliability, and share data collection.

PERFORMANCE MEASURE
Statewide Zero-Emission Vehicle & Clean Transportation Roadmap adopted

Innovative transportation technologies. Support transition to electric and low- or zero-emission transit buses, fleet vehicles, ferries, construction equipment, school buses, and other modes of transit.

PERFORMANCE MEASURE
Increased number of electric and low- or zero-emission vehicles in use

Promote a healthy environment by reducing air pollution and greenhouse gas emissions from transportation.

Carbon Reduction Strategy. Develop a Carbon Reduction Strategy that analyzes hot spots across the state, identifies root causes, and pinpoints meaningful countermeasures to mitigate and reduce carbon emissions.

PERFORMANCE MEASURE
Carbon Reduction Strategy developed

POLICY

Sustainable Plans, Policies, and Projects

Support the deployment of convenient, accessible, and equitable transportation technologies.

Sustainable Transportation Plan. Draft and implement a Sustainable Transportation Plan.

PERFORMANCE MEASURE
Sustainable Transportation Plan implemented

Policies. Recommend and promote policies, incentives, and awareness campaigns to support the transition to sustainable transportation.

PERFORMANCE MEASURE
New policies adopted

Sustainable Transportation Team. Build an internal and external team, working with partners across the public and private sectors to facilitate the expansion of sustainable transportation initiatives.

PERFORMANCE MEASURE
Sustainable Transportation Team developed

POLICY

Climate Justice

Address the disproportionate negative environmental impacts of transportation on disadvantaged communities.

Disadvantaged Communities. Implement sustainable projects in disadvantaged and overburdened communities that reduce emissions and improve sustainability.

PERFORMANCE MEASURE
Increased number of sustainability-focused projects in disadvantaged communities



Strategic Partners

Improve the efficiency and effectiveness of transportation services by expanding coordination and collaboration with other levels of government, industry partners, and the public.

POLICY

Coordination and Collaboration

Strengthen cross-sector collaboration in developing transportation solutions.



ACTION

Metropolitan Planning Organization (MPO) Alignment. Hold quarterly coordination meetings with MPOs to align the LRTP and metropolitan transportation plans (MTPs).

PERFORMANCE MEASURE

Quarterly meetings held with MPOs



ACTION

Support Local Planning. Create a Regional Planning Organization (RPO) and/or Regional Transportation Planning Organization (RTPO) program to facilitate regional planning that is locally administered. Develop and support a planning grant program.

PERFORMANCE MEASURE

Statutes and/or regulation created that support a planning grant program. Partnerships developed with entities to sign cooperating agreements to start RPOs or RTPOs.

POLICY

Awareness of Metrics and Financials

Increase understanding and communication of DOT&PF's responsibilities as the owner of highways, airports, harbors, marine terminals, and vessels, including funding mechanisms and system preservation efforts.



ACTION

Public Awareness of Metrics. Create an electronic key performance measures dashboard as part of DOT&PF's website and update regularly.

PERFORMANCE MEASURE

Performance measures dashboard completed



ACTION

Public Awareness of Financials. Collect, maintain, and link transportation revenue and expenditures on an annual basis to report to the public and decision-makers about the state of the system.

PERFORMANCE MEASURE

Public-facing financial report produced annually

POLICY

Transparency

Strengthen stakeholder engagement and open decision-making processes.



ACTION

Modernize the Public Participation Plan. Update the statewide public participation plan to reflect current practices and equity considerations, including regular stakeholder engagement on planning policy and regulations from such entities as the Roads & Highways Advisory Board, Alaska Marine Highways Operations Board, Alaska Municipal League, Southeast Conference, Alaska Federation of Natives, and others.

PERFORMANCE MEASURE

Public Participation Plan updated



Stewardship of the Transportation System

Address prevailing transportation challenges using the best and most cost-effective modal, intermodal, or multimodal solutions to improve operational efficiencies and safety with careful consideration of life-cycle costs.

POLICY

Sustainable Maintenance and Operations

Maintain, preserve, and operate assets and manage demand to meet desired performance of multimodal transportation systems before funding expansion projects.



ACTION

Capacity Inventory. Inventory available capacity of existing port, rail, aviation, marine highway, and roadway systems as well as maintenance facilities for consideration in addressing future needs.

PERFORMANCE MEASURE

Inventory completed



ACTION

Minimum Service Levels. Define minimum service levels for all modes, so funding can be prioritized to maintain minimum service levels.

PERFORMANCE MEASURE

Minimum levels of service established

POLICY

Efficient Freight Movement

Explore infrastructure and operational strategies to meet increasing demand for local freight deliveries post-COVID-19 and reduce delays.



ACTION

Freight Mobility Solutions. Research benefits and tradeoffs of drone deliveries, bike delivery services, staging areas, loading zones, and pick-up centers.

PERFORMANCE MEASURE

Strategies implemented

POLICY

Airspace Protection and Management

Protect and manage airspace to foster aviation growth, increased use of drones, and airspace management.



ACTION

Protect Airspace. Update state regulations and statutes and coordinate with local jurisdictions on land use regulations to continue to protect airspace around airports.

PERFORMANCE MEASURE

State regulations and statues updated



Transportation Innovation

Identify and plan for national trends and local innovations that have the potential to impact the provision of transportation services, particularly as they relate to safety, efficient freight movement, and work force needs.

POLICY

Technology Investments

Leverage technology investments that improve safety and efficiency.



ACTION

Innovative Technology. Identify and prioritize technology pilot projects that address safety and efficiency and avoid investing in “technology for technology’s sake.”

PERFORMANCE MEASURE

Increased number of pilot projects completed



ACTION

Interoperability. Prioritize interoperability and standardization when adopting new technology to ensure that all modes can interact efficiently.

PERFORMANCE MEASURE

Increased technology interfaces with multiple platforms

POLICY

Broadband

Support statewide broadband connectivity, particularly for rural and underserved areas, to supplement access to services and expand use of transportation technologies.



ACTION

Broadband Research. Conduct research that addresses the transportation system and workforce benefits of increased broadband access.

PERFORMANCE MEASURE

Broadband access study completed

POLICY

Cybersecurity

Continue to maintain robust cybersecurity measures.



ACTION

Cybersecurity. Identify, respond to, and mitigate cybersecurity and data security threats related to transportation systems.

PERFORMANCE MEASURE

No data breaches

POLICY

Local Mobility

Help local governments rethink how they manage streets, curbs, parking, and transit stops to support emerging mobility solutions, such as transportation network companies and micromobility providers.



ACTION

Mobility Integration. Identify responsibilities and projects for state, regional, and local agencies in mobility integration.

PERFORMANCE MEASURE

Increased number of mobility integration projects



ACTION

Micromobility Pilots. Fund pilot projects.

PERFORMANCE MEASURE

Increased number of micromobility pilot projects

POLICY

TSMO

Incorporate Transportation Systems and Management Operations (TSMO) into business processes to enable the implementation of mobility strategies.



ACTION

Technology Integration. Improve systems and technology activities that support TSMO proactive approaches for improving mobility by integrating technology into transportation plans, designs, operations, and maintenance.

PERFORMANCE MEASURE

Increased integration of technology in projects



ACTION

TSMO Workforce. Develop organizational structures and workforce strategies to better support TSMO activities and maintenance.

PERFORMANCE MEASURE

New workforce strategies in place



Performance-Based Management

Invest resources to improve access to data science, analytics, and informatics to implement data-driven, evidence-based decision-making.

Advocate for and establish stable, diverse, and long-term funding sources for each transportation mode and explore innovative financing.

POLICY

Coordinated Plans and Regulations

Create, update and coordinate plans, regulations, and policies so that all planning authorities are aligned with the goals and objectives of the LRTP and the public needs.

Family of Plans. Establish a family of plans and regular cycle for updating plans.

PERFORMANCE MEASURE
Established plans completed and updated

Planning Statutes & Regulations. Assist in drafting effective and coordinated transportation planning statutes and regulations.

PERFORMANCE MEASURE
Updated state legislation

Standardized Plans. Create a standard template and checklist of requirements for area, regional, corridor, modal, system, and functional plans that link to the LRTP goals and policies.

PERFORMANCE MEASURE
Template for area, regional, corridor, modal, system, and functional plans created.

POLICY

Funding and Finance

Reduce reliance on federal funding to allow for greater flexibility in delivering, operating, and maintaining the transportation system.

New Funding Sources. Explore new, sustainable funding opportunities that keep pace with growth and inflation.

PERFORMANCE MEASURE
New non-federal funding sources identified

Improve and expand relationships with private, local, and nonprofit partners. Transfer ownership of facilities of local importance to local governments.

Local Ownership. Incentivize the transfer of state-owned and/or state-maintained local facilities that have no regional or statewide function to local ownership and local financing mechanisms.

PERFORMANCE MEASURE
Increased number of facilities transferred to local ownership

Improve and streamline DOT&PF financial records and reporting of transportation-related expenditures.

Administrative Costs. Develop a standard procedure for tracking and allocating administrative costs associated with DOT&PF projects and programs.

PERFORMANCE MEASURE
Tracking of administrative costs standardized

Financial Reporting. Develop and implement standardized procedures for collecting and reporting annual financial information that will enable DOT&PF to provide an annual accounting of revenues and expenditures by mode, region, and project type.

PERFORMANCE MEASURE
Financial data reporting standardized

Paperless Project Delivery. Monitor and pursue opportunities for paperless project delivery and other technologies to reduce cost and improve the speed of project delivery.

PERFORMANCE MEASURE
Paperless project delivery implemented

The How

Goals for how we operate to maximize collaboration, efficiency, transparency, and innovation.



Performance-Based Management

Invest resources to improve access to data science, analytics, and informatics to implement data-driven, evidence-based decision-making.

Advocate for and establish stable, diverse, and long-term funding sources for each transportation mode and explore innovative financing.

POLICY

Strategic Investments

Strengthen analytical and reporting capabilities, including data reliability, timeliness, and accessibility to support asset management and federal reporting requirements.



ACTION

Authoritative Data. Implement a “single source of truth” to be used statewide for transportation data and create a public-facing dashboard as part of DOT&PF’s website.

PERFORMANCE MEASURE

Data consolidated statewide

Data dashboard developed

Explore approaches for providing more stability in transportation investments during economic and fiscal cycles, including more flexibility to address unanticipated needs during economic downturns or following major emergencies.



ACTION

Flexible Approaches. Implement innovative and cost-effective seasonal approaches to moving people and goods.

PERFORMANCE MEASURE

Increased number of new transportation solutions implemented

Provide data-driven processes to guide investment strategies on an ongoing basis in accordance with LRTP goals and objectives.



ACTION

Strategic Investment Plan. Develop a Financial Strategic Investment Plan as part of the family of plans. Adopt metrics for all modes to align with performance objectives. Adjust funding strategies to enable Alaska to make progress toward all family of plan goals.

PERFORMANCE MEASURE

Financial Strategic Investment Plan completed

Mode-based metrics adopted

6. Next Steps

Transportation decisions in Alaska are made by a wide range of transportation partners, including DOT&PF, elected officials, the federal government, metropolitan planning organizations, boroughs, cities, transit operators, the railroad, ports and harbors, airports, the military, private sector entities, and many other authorities and special districts. Collaboration among all these partners is essential to accomplish the LRTP's goals and actions.

The LRTP serves as Alaska's long-range transportation plan under both state and federal law. It is a framework to guide the investment decisions of DOT&PF and its planning partners.

- **DOT&PF will work with its partners to update and implement the statewide family of plans** to align them with the LRTP by incorporating the goals, policies, and actions into its investment decision-making processes.
- **Transportation planning partners will consider the LRTP goals, policies, and actions when updating regional and local plans**, such as long-range transportation plans, strategic regional policy plans, transportation elements of local government comprehensive plans, master plans, and similar documents.
- **The LRTP will be revisited and updated in five years** as required by federal law. The next LRTP update cycle will be an opportunity to revisit and reflect upon progress made towards the goals, policies, and actions outlined in the current LRTP through further coordination with transportation planning partners and the public.

DOCUMENT AND REPORT ON PROGRESS

DOT&PF will establish a process for documenting and reporting progress toward LRTP implementation. This will include setting and reporting on specific performance measures and building upon state and federal law. Annual reporting to transportation planning partners and the public on implementation is key to strengthening relationships.

The transportation decisions we make today will shape the future of our economy, communities, and environment over the next few decades. Working together, we have the opportunity to provide a safer and more secure system, increase the efficiency and reliability of travel for both people and freight, and expand accessibility and equity through transportation choices to meet the needs of all Alaskans.



Tudor Road in Anchorage, source DOT&PF



Scenic Seward Highway in the Chugach National Forest, source Carol M. Highsmith [cover image]

Appendices

Appendix A - Glossary of Terms

Appendix B - List of Acronyms

Appendix C - Compliance Checklist

Under Separate Cover:

Appendix D - Transportation and Freight Technical Memorandum

Appendix E - Scenario Planning & Performance Measurement

Appendix F - Infrastructure Investment & Jobs Act (IIJA) Funding Summary

Appendix G - Financial Assessment

Appendix H - Public & Stakeholder Involvement

Appendix A - Glossary of Terms

Alaska Department of Transportation & Public Facilities – Alaska DOT&PF designs, constructs, operates, and maintains the state’s transportation infrastructure systems, buildings, and other facilities, which include more than 5,600 miles of paved and gravel highways and more than 300 aviation facilities, including 235 rural airports and two international airports.

Alaska Marine Highway System – A ferry service operated by the state of Alaska, which serves as the only method of transportation of vehicles between the state and the contiguous United States.

Barge – The cargo-carrying vehicle that inland water carriers primarily use. Basic barges have open tops, but there are covered barges for both dry and liquid cargoes.

Bypass Mail Program – A program that subsidizes cargo shipments to rural Alaska, allowing for the delivery of consumer goods and groceries to small communities at parcel-post rates. The palletized shipments bypass all postal facilities and go directly to the air carriers.

Commodity – An Item that is traded in commerce. The term usually implies an undifferentiated product competing primarily on price and availability.

Critical Rural Freight Corridors – Public roads not in an urbanized area which provide access and connection to the Primary Highway Freight System and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.

Critical Urban Freight Corridors – Public roads in an urbanized area, which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.

E-commerce – The activity of electronically buying or selling products on online services or over the internet.

Essential Air Service Program – A U.S. government program enacted to guarantee that small communities in the United States, which had been served by certificated airlines prior to deregulation in 1978, maintained commercial service.

Federal Aviation Administration – A transportation agency of the U.S. government that regulates all aspects of civil aviation in the country and over surrounding international waters.

First- and last-mile – The beginning or end of an individual trip made primarily by public transportation.

Freight – Cargo or goods transported by truck or other means of transportation.

Hub – A common connection point for devices in a network. Referenced for a transportation network as in “hub and spoke,” which is common in the airline and trucking industry.

Long-Range Transportation Plan – A traditional Long-Range Transportation Plan is a 20-year planning horizon vision document that reflects the application of programmatic transportation goals to project prioritization. Transportation plans are conducted at the national, regional, and unit level for Federal Land Management Agencies. Long-Range Transportation Plans include financial components that demonstrate how the recommended transportation plan can be implemented, identify the public and private resources expected to be available to carry out the plan, and recommend any additional financing strategies for needed projects and programs.

Maritime Administration – The Maritime Administration is the agency within the U.S. Department of Transportation dealing with waterborne transportation. Its programs promote the use of waterborne transportation and its seamless integration with other segments of the transportation system, and the viability of the U.S. merchant marine. The Maritime Administration works in many areas involving ships and shipping, shipbuilding, port operations, vessel operations, national security, environment, and safety. The Maritime Administration is also charged with maintaining the health of the merchant marine, since commercial mariners, vessels, and intermodal facilities are vital for supporting national security, and so the agency provides support and information for current mariners.

Marine Highway Program – A program that seeks to develop and expand marine highway service options and facilitate their further integration into the current U.S. surface transportation system, especially where water-based transport is the most efficient, effective, and sustainable option and highlight the benefits, increase public awareness, and promote waterways as a viable alternative to land shipping and other transportation options.

Metropolitan Planning Organizations – The policy board of an organization created and designated to carry out the metropolitan transportation planning process. MPOs are required to represent localities in all urbanized areas with populations over 50,000, as determined by the U.S. Census.

Multimodal – Having or involving different types of transportation modes such as airplane, motor vehicle, motorcycle, train, waterborne, bicycle, pedestrian, and non-traditional.

Municipality – A city or town with its own local government or the local government itself.

North Slope – The region of Alaska located on the northern slope of the Brooks Range along the coast of two marginal seas of the Arctic Ocean, the Chukchi Sea being on the western side of Point Barrow, and the Beaufort Sea on the eastern side.

Northwest Passage – The sea route between the Atlantic and Pacific oceans through the Arctic Ocean, along the northern coast of North America via waterways through the Canadian Arctic Archipelago.

Resiliency – The ability to adapt to, recover from, respond to, and bounce back quickly from threats to physical infrastructure and operations cybersecurity, terrorism, and other hazards.

Riverine – Relating to or found on a river or rivers or the banks of a river.

Seaport – A port, harbor, or town accessible to seagoing ships.

Tonnage – A measure of the cargo-carrying capacity of a ship, commonly used to assess fees on commercial shipping.

Underserved Communities – Communities or groups of people who face additional barriers to the access and receipt of services due to race, ethnicity, color, national origin, disability, primary language other than English, gender, age, sexual orientation, and/or geographic location.

Unmanned Aerial Systems – Air vehicles and associated equipment that do not carry a human operator but, instead, are remotely piloted or fly autonomously.

Appendix B - List of Acronyms

ABS	Alaska Bypass Mail System
AIAS	Alaska International Airport System
AIDEA	Alaska Industrial Development and Export Authority
AIP	Airport Improvement Program
ATV	All Terrain Vehicle
AMATS	Anchorage MPO, Anchorage Metropolitan Area Transportation Solutions
AMHS	Alaska Marine Highway System
ANC	Ted Stevens Anchorage International Airport
ARRC	Alaska Railroad Corporation
ASATP	Alaska Statewide Active Transportation Plan
AWOS	Automated Weather Observing Systems
CRFC	Critical Rural Freight Corridor
CUFC	Critical Urban Freight Corridors
DMTS	DeLong Mountain Transportation System
DOT&PF	Alaska Department of Transportation & Public Facilities
EAS	Essential Air Service
FAA	Federal Aviation Administration
FAI	Fairbanks International Airport
FAST Act	Fixing America's Surface Transportation Act

FAST Planning	Fairbanks MPO, Fairbanks Area Surface Transportation Planning
FHWA	Federal Highway Administration
FLMA	Federal Land Management Agency
IARF	International Airports Revenue Fund
IGU	Interior Gas Utility
IJA	Infrastructure Investment and Jobs Act
JNU	Juneau International Airport
L RTP	Long-Range Transportation Plan
MAP-21	Moving Ahead for Progress in the 21st Century Act
MARAD	Maritime Administration
MPO	Metropolitan Planning Organization
NHS	National Highway System
NOAA	National Oceanic and Atmospheric Administration
PHFS	Primary Highway Freight System
TAMP	Transportation Asset Management Plan
UAS	Unmanned Aerial System
UPS	United Parcel Service
USDOT	U.S. Department of Transportation

Appendix C - Compliance Checklist

This appendix details the transportation and freight planning requirements outlined by both the federal government and the State of Alaska. This compliance checklist indicates where in the LRTP that the requirement was fulfilled.

Federal Compliance

Per federal requirements outlined in the FAST Act and the MAP-21 Act, *Alaska Moves 2050* must complete the following objectives¹:

- Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency;
- Increase the safety of the transportation system for motorized and nonmotorized users;
- Increase the security of the transportation system for motorized and nonmotorized users;
- Increase the accessibility and mobility of people and freight;
- Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight;
- Promote efficient system management and operation;

- Emphasize the preservation of the existing transportation system;
- Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation; and
- Enhance travel and tourism.

The [IIJA](#), signed into federal law November 15th, 2021, is a five-year authorization bill from Congress for the United States Department of Transportation (USDOT), covering fiscal years 2022 – 2026. Similar to previous authorization bills FAST Act (2015) and the MAP-21 (2012) Act, the IIJA addresses statewide and metropolitan transportation planning requirements. These federal requirements, along with those established by the FAST Act and MAP-21 Act, are detailed in the following table, along with their associated statute, and location in *Alaska Moves 2050*.

¹ Federal Highway Administration. (April 2016). FAST Act: Statewide and Non-Metropolitan Planning. US Department of Transportation. <https://www.fhwa.dot.gov/fastact/factsheets/statewideplanningfs.cfm>

Table 1: Alaska Moves 2050 Federal Compliance Checklist

Requirement Factors	Plan Response	Location
The LRTP carries out a continuing, cooperative, and comprehensive performance-based statewide multimodal transportation planning process.	<p>Performance implications, opportunities and challenges of demographic, environmental, economic and technology trends on Alaskan resources.</p> <p>Continuous engagement with ADOT&PF planning partners throughout 2050 LRTP development.</p> <p>Performance-responsive strategies address future uncertainties.</p>	<p><i>Section 4. A Snapshot of the Multimodal Transportation System</i></p> <p><i>Appendix D - Transportation and Freight Technical Memorandum</i></p> <p><i>Appendix H - Public & Stakeholder Involvement</i></p>
The Alaskan transportation planning process provide for consideration and implementation of projects, strategies, and services that address the 10 federal planning factors.	<p>Vision, goals and objectives are consistent with federal planning factors and linked to transportation-supportive state economic, environmental, and tourism goals.</p> <p>Strategies and actions enhance multimodal system assets, accessibility, connectivity, safety, resiliency, tourism, operations, and management.</p>	<i>Section 5. Getting Results</i>
Alaska's transportation planning process use a performance-based approach to transportation decision-making. [23 USC 135 (d)(2)(A)]	<p>Through the establishment of performance measures related to statewide goals, in addition to those federally required, Alaska has enacted a performance-based approach.</p> <p>Resulting strategies prioritize solutions to address system performance gaps.</p>	<p><i>Appendix E - Scenario Planning & Performance Measurement</i></p> <p><i>Section 5. Getting Results</i></p>

Requirement Factors	Plan Response	Location
Alaska followed its documented public involvement plan to provide opportunities for public review and comment, provided for the participation of nonmetropolitan local officials, and developed the LRTP in consultation with Tribal governments and representatives. [23 CFR 450.216 (l) and 23 USC 135(f)(3)(A)(ii) &(g)(3)]	<p>Due to COVID-19 restrictions, many aspects of the public involvement process were carried out in a virtual setting, including online surveys, open houses, and interviews.</p> <p>Flyers, paper surveys, and newspaper announcements were posted in rural communities to facilitate further involvement.</p>	<p><i>Section 2. What's the Plan?</i></p> <p><i>Appendix H - Public & Stakeholder Involvement</i></p>
Alaska incorporated the use of social media as an engagement tool in the transportation planning process. [23 USC 135(f)]	<p>Outreach targeted MPOs, rural organizations, advocacy groups, and other stakeholders, including tribal representatives.</p>	
Alaska developed the LRTP in cooperation with the MPOs and nonmetropolitan local officials, and in consultation with Tribal governments and local agencies responsible for land use management, natural resources, environmental protection, conservation, and historic preservation. [23 CFR 450.216 (j) and 23 CFR 450.216 (9)]	<p>A public review draft was available between June 24 to August 1, 2022</p>	
The LRTP was available for public review. [23 CFR 450.216 (o)]		
DOT&PF provided revised copies of the LRTP to FHWA and FTA. [23 CFR 450.216 (q)]	<p>The FHWA and Federal Transit Administration were provided copies of the Long-Range Transportation Plan on X. NOT YET COMPLETED</p>	
The LRTP has a minimum 20-year forecast period from the time of adoption. [23 CFR 450.216 (a)²]	<p>Alaska Moves 2050 utilizes a 30-year planning horizon (2020 – 2050), which exceeds the minimum requirement of 20 years.</p>	<i>Section 2. What's the Plan?</i>
Alaska has continually evaluated, revised, and periodically updated the LRTP. [23 CFR 450.216 (p)]	<p>Alaska Moves 2050 Long-Range Transportation Plan builds from the 2016 Let's Keep Moving 2036 LRTP.</p>	<i>Section 2. What's the Plan?</i>

² Statewide and Nonmetropolitan Transportation Planning and Programming, 23 C.F.R. § 450 (2015). <https://www.ecfr.gov/current/title-23/chapter-I/subchapter-E/part-450>

Requirement Factors	Plan Response	Location
The LRTP includes elements and connections between various modes and addresses intercity travel. [23 CFR 450.216 (2)]	The LRTP details the existing conditions, challenges, and opportunities of roadway infrastructure, non-motorized infrastructure, public transit services, aviation infrastructure, marine infrastructure, and rail infrastructure, in addition to the unique conditions of remote, rural, and tribal communities that use Alaska's multimodal transportation system.	<i>Section 4. A Snapshot of the Multimodal Transportation System</i>
The LRTP includes strategies to ensure the preservation and most efficient use of the existing transportation system. [23 CFR 450.216 (b)]	The LRTP includes strategies that prioritize preservation of the existing Alaska's multimodal transportation system.	<i>Section 5. Getting Results</i>
Alaska must adopt a Complete Streets Policy and implement the policy throughout the LRTP and STIP to qualify for federal Complete Streets Program funds. [IIJA, 23 USC 505]	The LRTP acknowledges the creation of the federal Complete Streets Program which stipulates that Alaska must adopt a Complete Streets Policy and incorporate the policy throughout the LRTP and the STIP.	<i>Section 5. Getting Results</i>
The LRTP references, summarizes, or contains applicable studies, reports, and plans that were relevant to the development of the LRTP. [23 CFR 450.216 (c)]	The LRTP incorporated an existing document summary as part of the initial transportation and freight assessment to reference relevant statewide, metropolitan, and regional efforts.	<i>Appendix D - Transportation and Freight Technical Memorandum</i>
The integrates the priorities, strategies, or projects contained in the HSIP and the SHSP, as well as relevant asset management plans. [23 CFR 450.206 (c)]	The LRTP includes safety and transit-related strategies and referenced federally required relevant performance measures.	<i>Appendix E - Scenario Planning & Performance Measurement</i> <i>Section 5. Getting Results</i>
The LRTP includes a security element that incorporates priorities, goals, or projects set forth in other transit safety and security planning programs. [23 CFR 450.216 (e)]	Vision, goals and objectives are consistent with security element that is reflected in the strategies that prioritize both motorized and non-motorized user safety.	<i>Appendix D - Transportation and Freight Technical Memorandum</i> <i>Section 5. Getting Results</i>

Requirement Factors	Plan Response	Location
The LRTP includes a description of the federal performance measures and targets used in assessing the performance of the transportation system, and a system performance report. [23 CFR 450.216 (f) and 23 USC 135 (f)(7)]	The LRTP includes a description of federal performance measures, as well as an update on Alaskan progress, in the initial transportation and freight assessment.	<i>Appendix E - Scenario Planning & Performance Measurement</i> <i>Appendix D - Transportation and Freight Technical Memorandum</i>
Alaska's transportation planning process continues to report the federal performance measures. [IIJA]		
The LRTP includes a discussion of potential environmental mitigation activities, developed in consultation with Federal, State, regional, local and Tribal agencies. [23 USC 135(d)[1, I, j) and 23 CFR 450.216 (k)]	Vision, goals and objectives consistent with natural environmental protection and mitigation of transportation impacts. Strategies reflect increasing need for climate resiliency throughout the transportation system.	<i>Appendix D - Transportation and Freight Technical Memorandum</i> <i>Section 5. Getting Results</i>
The LRTP considers the role that transit plays in environmental mitigation of transportation-related emissions and includes strategies to improve transit. [23 USC 135 (f)(8)³]	The LRTP includes transit-related needs, challenges, and opportunities, as well as strategies for improving transit service.	<i>Appendix D - Transportation and Freight Technical Memorandum</i> <i>Section 5. Getting Results</i>
The LRTP may include a financial plan that demonstrates how the adopted LRTP can be implemented. [23 CFR 450.216 (m)]	<i>Alaska Moves 2050</i> recommends a future financial plan as part of the "family of plans".	<i>Section 5. Getting Results</i>
The LRTP may include consideration of congestion mitigation projects and strategies. [23 CFR 450.216 (4)]	The Freight Plan addresses congestion through the identification of freight bottlenecks along the statewide system.	<i>Appendix D - Transportation and Freight Technical Memorandum</i>

³ Statewide and Nonmetropolitan Transportation Planning, 23 U.S.C. § 135 (2015). <https://www.govinfo.gov/content/pkg/USCODE-2015-title23/html/USCODE-2015-title23-chap1-secl35.htm>

State Compliance

In addition to federal transportation planning requirements, *Alaska Moves 2050* also must conform to the Alaska State Statute Title 44, Section 42.05, State Transportation Plan⁴, and Sections 5.135 – 140 of Title 17 (Public Participation in the Statewide Transportation Planning Process, Methods for Receiving Public Input, Public Review of the Draft Plan, and Adoption of the Statewide Transportation Plan). Table 2 delineates these planning requirements, along with their location in the Freight Plan, which address all freight modes in Alaska.

Table 2: *Alaska Moves 2050* State of Alaska Compliance Checklist

Requirement Factors	Plan Response	Location
The LRTP is comprehensive, intermodal, long-range document that addresses Alaska’s geographic areas, multimodal transportation system, and relevant planning information. [Alaska Statutes 44.42.05 (a)]	<i>Alaska Moves 2050</i> covers a 20+ year planning horizon and addresses each of the important modes that serve Alaskan communities throughout the state utilizing a performance-based planning approach.	<p><i>Section 2. What’s the Plan?</i></p> <p><i>Section 4. A Snapshot of the Multimodal Transportation System</i></p> <p><i>Appendix E - Scenario Planning & Performance Measurement</i></p> <p><i>Appendix D - Transportation and Freight Technical Memorandum</i></p>
The LRTP conforms to federal transportation planning requirements. [Alaska Statutes 44.42.05 (a)]	<i>Alaska Moves 2050</i> conforms with federal requirements, as outlined in Table 1.	
The development and revisions of the LRTP included public review and evaluation by representatives of federal, regional, and local governments as well as other interested corporations and organizations. [Alaska Statutes 44.42.05 (b)]	The <i>Alaska Moves 2050</i> planning process included stakeholder and public involvement, with the Statewide Transportation Advisory Committee, the Freight Advisory Committee, the Technical Advisory Committee, interviews, focus groups, and public surveys.	<i>Appendix H - Public & Stakeholder Involvement</i>

Requirement Factors	Plan Response	Location
Copies of the LRTP are available in the office of the Commissioner as well as each regional DOT&PF office. [Alaska Statutes 44.42.05 (c)]	<i>Alaska Moves 2050</i> will be available following adoption in 2022. NOT YET COMPLETED	
In addition to the LRTP, a list of design, construction, and other projects was developed that are fiscally-constrained, identify funding sources, and are consistent with the LRTP. [Alaska Statutes 44.42.05 (d)]	<p><i>Alaska Moves 2050</i> is a statewide policy plan, and therefore does not develop a list of fiscally-constrained projects. However, as part of the family of plans, the follow-up STIP and TIP should include a list of projects consistent with the LRTP.</p> <p>As is federally-required, the Freight Plan includes a Freight Investment Plan chapter that includes a fiscally-constrained freight projects list and a longer list of unfunded freight projects for future consideration.</p>	
All new transportation facilities included in the LRTP were evaluated for cost-effectiveness. [Alaska Statute 44.42.05 (e)]	Please see above.	
Notice of an update to the statewide transportation plan was provided in general circulation newspapers, through written notice to interested persons and state legislators, and posted on the Alaska Online Public Notice System. The notice included means of contacting the department and for indicating interest in further involvement in the planning process. [Alaska Statute 17.05.135]	The notice included a summary of parts of the plan to be updated, a summary of the scope of the updated plan, the general plan for public participation activities, and means of contacting the department via mail, telephone, fax, e-mail, and ADA-accessible telephone. The notice included means of subscribing for updates and providing updates.	<i>Appendix H - Public & Stakeholder Involvement</i>

⁴ State of Alaska. Alaska Statutes Title 44. State Government § 44.42.050. State Transportation Plan. <https://codes.findlaw.com/ak/title-44-state-government/ak-st-sect-44-42-050.html>

Requirement Factors	Plan Response	Location
Within 45 days of the notice publishment, the department formed a public review group for the update, including any person who expressed interest. The department provided the public review group with written notice of all materials and provided copies upon request. [Alaska Statute 17.05.140 (a) (b)]	Based on the responses from the public notice, a mailing and email list were created, and materials were provided for review, along with a form for commenting.	<i>Appendix H - Public & Stakeholder Involvement</i>
The department collected public comment through questionnaires, direct staff inquiries, and public meetings - the department conducted at least one public meeting to solicit comments from members of the public and interested persons. The department provided adequate notice of this meeting. [Alaska Statute 17.05.140 (c) (d)]	Public comments were collected at multiple points during the planning process, including during June 2021 and January 2022. Public comments were collected through online surveys, in addition to open house online meetings. Special outreach was conducted for communities without internet access, including mailed documents and surveys.	<i>Appendix H - Public & Stakeholder Involvement</i>
The department solicited public input for the draft statewide transportation plan. The document was provided by request, was posted on a publicly-available website, and was distributed to municipal libraries. A questionnaire was included with the document to collect public comments. The document was available for comment for public review period of 45 days. The department made available public comments and responses received, by request. [Alaska Statute 17.05.140 (e) and Alaska Statute 17.05.145]	NOT YET COMPLETED	<i>Appendix H - Public & Stakeholder Involvement</i>
Within 90 days of the public review period, the public comments were considered, and the commissioner adopted the updated statewide transportation plan.	NOT YET COMPLETED	<i>Appendix H - Public & Stakeholder Involvement</i>

Requirement Factors	Plan Response	Location
Within 15 days after adoption, the department provided written notice of the adoption to interested persons and the public review group.	NOT YET COMPLETED	<i>Appendix H - Public & Stakeholder Involvement</i>
The adopted document, on each page, bears the notation “An approved component of the Alaska Statewide Transportation Plan” followed by the month, day, and year of the document adoption.	NOT YET COMPLETED	<i>Appendix H - Public & Stakeholder Involvement</i>



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