

#### What we do

- Snow and Ice Control, Snow Plowing and Removal, Anti-icing and Deicing, Sanding
- Avalanche Mitigation
- Asphalt Repairs: Hi-Float, AC, Potholes, Crack Sealing, etc.
- Blading and Gravel Resurfacing
- Drainage: Thaw and clean culverts, drainage ditch maintenance, and Erosion Control
- Vegetation Management

- Paint Striping/Pavement Marking
- Bridge Maintenance and Repair
- Signs, Delineation, Guardrail, and Markers
- Traffic Signal and Light Maintenance
- Airport Management
- Aircraft Rescue and Fire Fighting
- Airport Security
- Airport Lighting Maintenance



#### **Statewide Level of Service Consistency**

#### **Roadway Priorities and Levels of Service**

**Priority 1:** High volume, high-speed roadways, such as expressways and safety corridors

**Priority 2:** Major highways and arterials connecting communities

**Priority 3:** Major local roads or collector roads

**Priority 4:** Minor local roads that primarily provide residential or recreational access

**Priority 5:** Roadways that are designated as "No Winter Maintenance" routes, such as Denali Highway and Taylor Highway





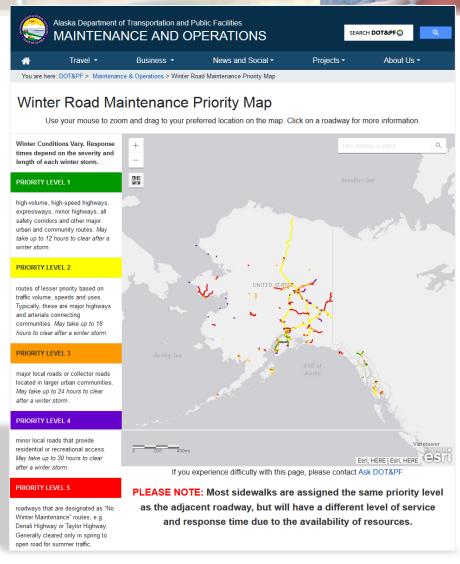








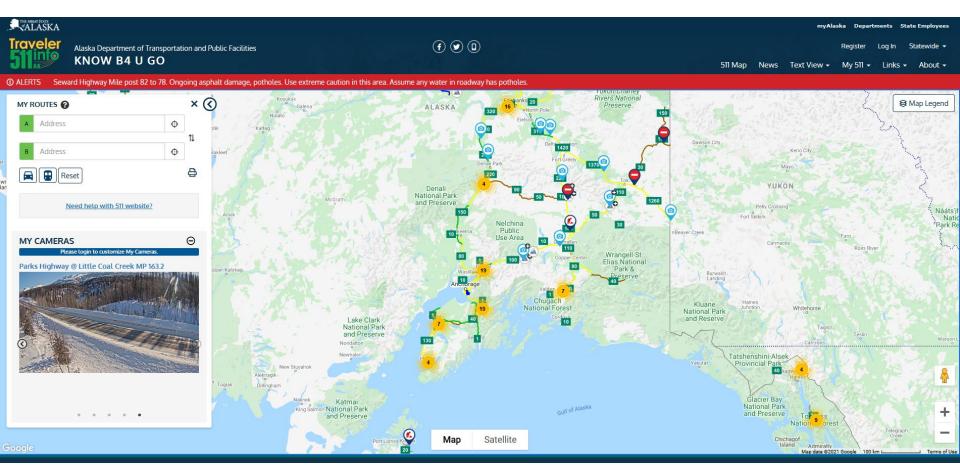
#### **Statewide Level of Service Consistency**



http://dot.alaska.gov/stwdmno/wintermap/







#### https://511.alaska.gov

#### **Resources Required**

To meet the challenges of maintaining Alaska's highways and airports, the department requires an arsenal of equipment, new technologies, sand and chemicals, and the best weapon of all, a highly trained and professional maintenance staff.



#### **Maintenance and Operations Challenges**

- Extreme Temperatures: -80F to +100F
- Extreme Snowfall: 1.5' to 80'
- Extreme Geography: Maritime to Arctic
- Extreme Cost:
  - Materials
  - Diesel \$9-\$10/gal in Villages
  - Equip Shipping
- Changing Climate
- Managing Fiscal Constraint







#### **Winter Maintenance Efficiencies**

- RWIS Installations
- Highway Anti-icing Program
- Airport De-icing
- Tow Plows
- Ice Breakers
- Telematics
- GPS Guidance systems snow removal equipment.
- Alaska Specific eMDSS
- Cooperation with FAA and National Weather Service for additional weather system information.









#### **Towplows**

#### **Benefits**

- Increased efficiency and production (One pass clearing, improved cycle times, wider clearing path)
- Reduction in manpower and equipment
- Environmental benefits from using less fuel
- Safety improvements due to improved cycle times
- Longer service life than snowplow trucks







## **Need for Ice Breaking Technologies**







### **Ice Breaking Technology**



#### **Additional Efficiencies**

- Maximizing Federal Funding (Federal Highway Administration and Federal Aviation Administration)
- Multi-modal Crews (Highways and Aviation)
- Anti-Idling Policy















#### **Extreme Conditions**







### **Extreme Conditions**











## **Emergency Response**









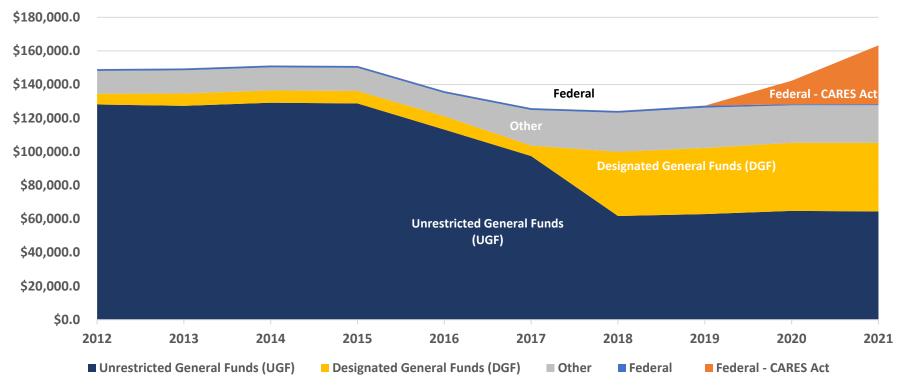








## **Regional Highways & Aviation**



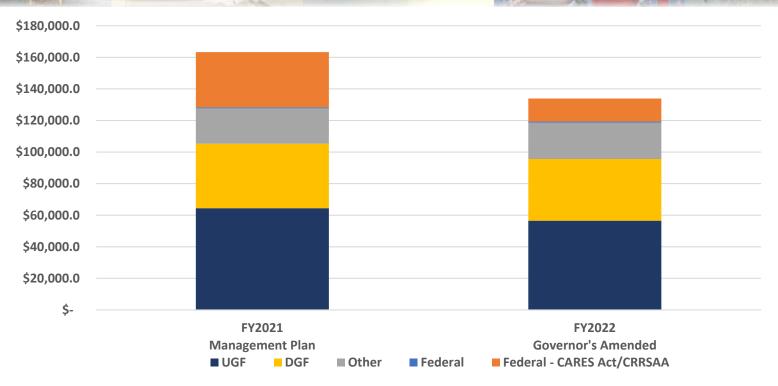
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Unrestricted General Funds (UGF)	\$128,114.1	\$127,300.1	\$129,146.9	\$128,728.9	\$113,145.6	\$97,396.1	\$61,715.6	\$62,852.1	\$64,799.1	\$64,440.9
Federal - CARES Act	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$0.0	\$14,000.0	\$35,000.0
Designated General Funds (DGF)	\$6,441.7	\$7,358.2	\$7,371.6	\$7,447.9	\$7,904.4	\$6,222.9	\$38,225.4	\$39,407.3	\$40,513.9	\$40,822.7
Other	\$13,509.8	\$13,798.8	\$13,684.7	\$13,739.0	\$13,876.2	\$21,204.7	\$23,213.6	\$23,956.2	\$22,302.5	\$22,401.6
Federal	\$1,102.4	\$1,086.1	\$1,091.8	\$1,094.3	\$1,094.3	\$1,092.1	\$1,094.5	\$1,163.4	\$649.0	\$650.1
Total:	\$149,168.0	\$149,543.2	\$151,295.0	\$151,010.1	\$136,020.5	\$125,915.8	\$124,249.1	\$127,379.0	\$142,264.5	\$163,315.3

03/13/2021



\$ in Thousands (1,000)

#### **FY2022 Operating Budget Comparison Regional Highways & Aviation**



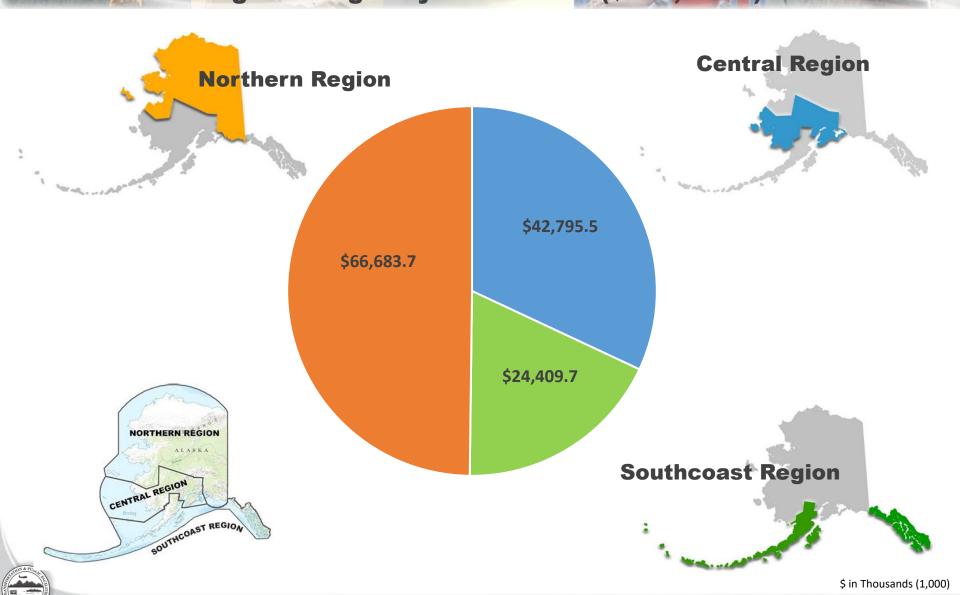
	FY2021	FY2022	\$ Difference Between	% Difference Between	
Fund Types	Management Plan	Governor's Amended	FY2021 & FY2022	FY2021 & FY2022	
UGF	\$ 64,440.9	\$ 56,514.2	\$ (7,926.7)	-12.3%	
Federal - CARES Act/CRRSAA	\$ 35,000.0	\$ 14,579.7	\$ (20,420.3)	-58.3%	
DGF	\$ 40,822.7	\$ 39,090.8	\$ (1,731.9)	-4.2%	
Other	\$ 22,401.6	\$ 23,054.1	\$ 652.5	2.9%	
Federal	\$ 650.1	\$ 650.1	\$ -	0.0%	
Total	\$ 163,315.3	\$ 133,888.9	\$ (29,426.4)	-18.0%	

<sup>\*</sup>Budgeted, Management Plan - FY2021 includes FAA CARES Act RPL authority

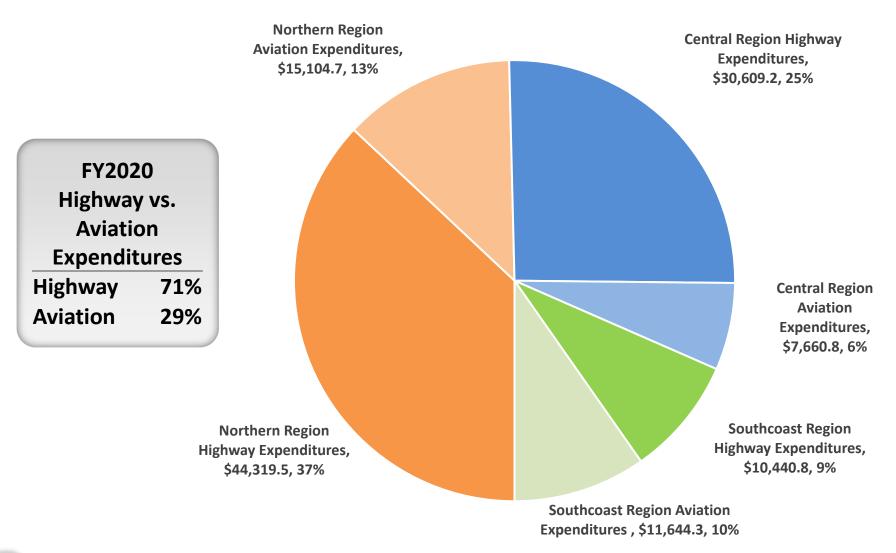


\$ in Thousands (1,000)

# FY2022 Governor's Amended Operating Budget Regional Highways & Aviation (\$133,888.9)



## FY2020 Regional Highways and Aviation Actual Expenditures All Fund Sources (\$119,779.3)





\$ in Thousands (1,000)

#### **FY2022 Highways Budgetary Actions**

Reopening of Chitina & Birch Lake Maintenance Stations (794.6 Fed - CRRSAA)

Reopening of Silvertip Maintenance Station (620.0 Fed - CRRSAA)

Dalton District Shift Change - Two Week On/Two Week Off (1,298.6 Fed - CRRSAA)

Add Authority to Cover Collective Bargaining Unit Increases for 37.5 to 40-hour Work Week (716.0 UGF)

Projected Motor Fuel Shortfall (-502.8 DGF/502.8 UGF)

Delete Unrealized Motor Fuel Tax Authority (-1,232.2 DGF)



\$ in Thousands (1,000)

#### Thank You.

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 $\textit{Mat-Su valley seen from Independence Mine.} \ \textit{Photo by Chuck Eldridge, Alaska DOT\&PF}$