



Alaska Department of Transportation & Public Facilities

Overcoming Operational Challenges

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with subject matter experts

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February 15, 2022

Our mission is to *Keep Alaska Moving* through service and infrastructure.

Overcoming Operational Challenges



Continued Impacts of COVID
Employee Availability, Supply Chain, Operational

Workforce Strategies and Budgetary Transactions
Mission Critical Incentive Pay, Overtime, Contracting

Responses to Extreme Weather & Emergency Events
DOT&PF Regions, Division of Facilities Services



COVID

Impacts to Workforce

- Maintaining coverage during a COVID outbreak at a station , critical at locations such as an FAA Part 139 airport.
 - Increased overtime to cover sick and unavailable employees.
- Unavailable and sick staff risk delays in equipment repairs, risks inadequate staff to handle storm events.

Supply Chain and Commodities Availability

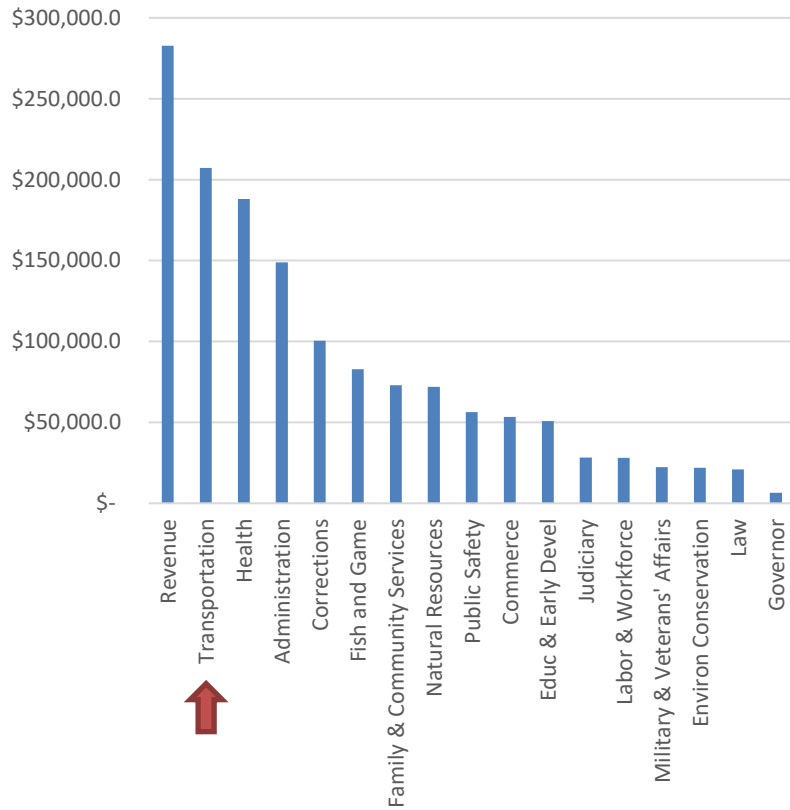
- Experienced issues with annual winter product order.
- In some areas DOT&PF had to switch to more expensive winter product due to availability and production issues.
 - Experiencing significant shipping delays.
 - Increased costs attributed to delays in production.
- Limited availability of critical parts and supplies, delaying equipment repairs and service delivery.

Operational

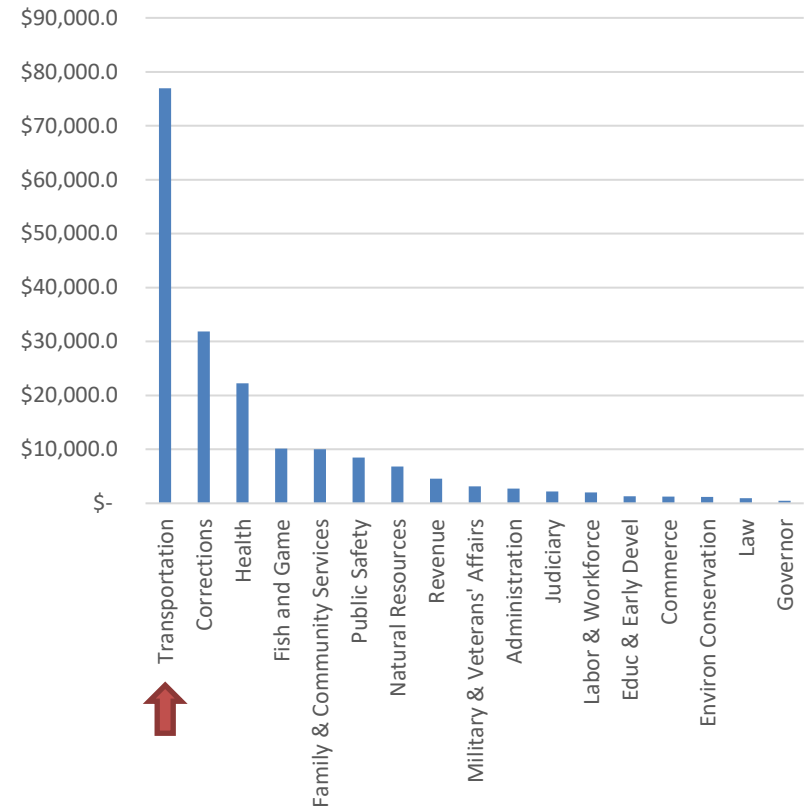
- Increases in janitorial contracts, cleaning expenses.
- Decrease in Alaska Marine Highway System (AMHS) revenue.
- Interruptions in services from contractors due to COVID positive staff.
- Significant portion of workforce teleworking. Implementing Hybrid Workspaces.

Equipment and Commodity Budget

Budgeted Contractual Services



Budgeted Commodities



Managing Equipment and Commodities



FY2022 Order: 7,917 (NR 4,948 | CR 2,534 | SR 435)

DOT&PF uses 10 styles of blades.

First vendor not able to meet delivery deadlines for a single lot.

FY2022 second procurement (summer):
Avg. cost per blade is \$847 (32% more)

FY2022 first procurement (spring):
Avg. cost per blade is \$641

FY2021 bid:
Avg. cost per blade is \$642

Example Order for 505 Dual Carbide Blades

DELIVERY		STATE OF ALASKA Dept of Transportation & Public Facilities P.O. Box 112500, Juneau, Alaska 99811-2500		DELIVERY ORDER NUMBER 2522H001		
DEPARTMENT OF TRANSPORTATION & PUBLIC FACILITIES Statewide Maintenance & Operation Station Various Locations within Alaska (see Attachments A & C)	Delivery Required By: See Attachments A and C		DATE OF ORDER August 17, 2021			
	F.O.B. POINT		AGENCY REQUISITION #			
CONTRACTOR Far North Supply 1028 East 5th Avenue, Suite C Anchorage, AK 99501 Email: fsn@fnsupply.com	Company Contract Name Thomas Cabell		Bid # ITB 2522H001		Date of Bid: 7/2/2021	
	Phone Number 907.978.0999		See Contract Award #		Expiration Date:	
Shipping Method Via:		Instructions: See Attachment A for Region/Lot/Location/Item Details See Attachment C for Points of Contact at each location				
<small>Note: This order constitutes a binding commitment between the state and the contractor failed herein. Unauthorized modification without the expressed prior approval of the purchasing authority will result in a financial obligation on the contractor and/or unauthorized state personnel.</small>						
ITEM #	COMMODITY CODE	Quantity Ordered	Unit	DESCRIPTION <small>(Note: include C.A. item number if appropriate)</small>	UNIT PRICE	EXTENDED PRICE
1		1	Lot	Lot One - Dual Carbide Blades - Central Region Lot One - Dual Carbide Blades - Northern Region Lot One - Dual Carbide Blades - Southcoast Region		\$35,572.86 \$132,865.20 \$186,580.92
All terms and conditions of ITB 2522H001 apply.						
SEND INVOICE IN DUPLICATE TO:		By email to: tom.mayer@alaska.gov		Page 1 of 1 Pages: 1 All Pages: 1		
REF #	Type	Number	Amount	Date	Comments	
1	PVN				ENC:	
2	DO					
3	SR					
4	UDR					
ACC'T	FY	DEST	LIQ	Purchasing Authority's Signature <i>Tom Mayer</i> 8/17/2021 Telephone Number 907.465.8855 Date Received		
<small>relating to this order. Registration number 02-73-0006 K. Items are for the exclusive use of the state and not for</small>						

Lot	Description
One	Regular Curved Blades
Two	Regular Flat Blades / HEATED TREATED
Three	Regular Flat Blades / HIGH CARBON
Four	Scarifier Blades / (1.4" Tooth Width)
Five	Scarifier Blades / (2.5" Tooth Width)
Six	Single Carbide Insert Blades
Seven	Dual Carbide Insert Blades
Eight	Single Carbide Insert Blade-Curved
Nine	Six Foot Long Dual Carbide Insert Blades
Ten	Caterpillar Brand Blade Only-Part Number 109-3124




Workforce Strategies

Mission Critical Incentive Pay (MCIP)


- Fund mission critical incentive pay (MCIP) for Bethel Airport foreman and equipment operators, \$100.0
- Fund mission-critical pay for Fairbanks electricians and Nome duty station equipment operator, \$279.0

Dalton 2x2

Attracts and retains talent from locations with larger workforce pools.



District	Fairbanks	Denali	Tok	Tazlina	Valdez	Dalton	Western	Regional Total
Permanent FT Positions	49	17	20	24	14	61	30	215
Permanent Seasonal Positions	3	7	15	12	10	3	0	50
Total Positions	52	24	35	36	24	64	30	265
Unfilled #	8	5	6	7	7	2	9	44
% Unfilled	15%	21%	17%	19%	29%	3%	30%	17%
Positions with less than 1 year	18	8	8	8	7	10	5	64
# Unfilled or Less than 1 yr exp	26	13	14	15	14	12	14	108
% Unfilled or Less than 1 yr exp	50%	54%	40%	42%	58%	19%	47%	41%
Median longevity (in years)	2.7	2.1	2.3	2.8	2.7	2.8	3.2	2.7



Contracting

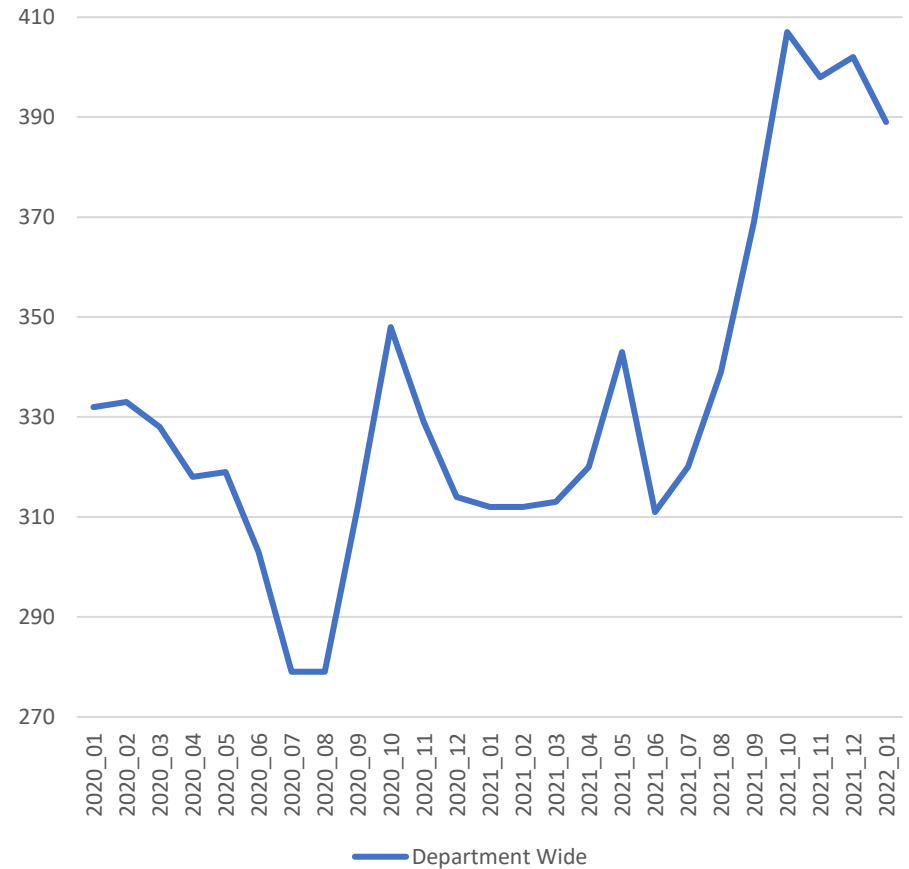
When needed, adding extra operators and equipment in response to extreme events.



Workforce Strategies

Month	Department Wide	Equipment Operators	DFS LTC	SEF
2020_01	332	73	15	10
2020_02	333	74	16	10
2020_03	328	66	17	10
2020_04	318	69	16	7
2020_05	319	69	16	7
2020_06	303	62	17	8
2020_07	279	58	18	6
2020_08	279	61	17	8
2020_09	312	80	16	10
2020_10	348	107	19	10
2020_11	329	90	21	9
2020_12	314	78	20	7
2021_01	312	76	21	8
2021_02	312	80	21	7
2021_03	313	77	21	8
2021_04	320	78	21	8
2021_05	343	105	21	9
2021_06	311	79	25	13
2021_07	320	91	24	12
2021_08	339	99	24	15
2021_09	369	119	25	17
2021_10	407	145	24	20
2021_11	398	119	28	20
2021_12	402	121	28	19
2022_01	389	114	27	18

Vacant Positions, Department Wide, 2 Years

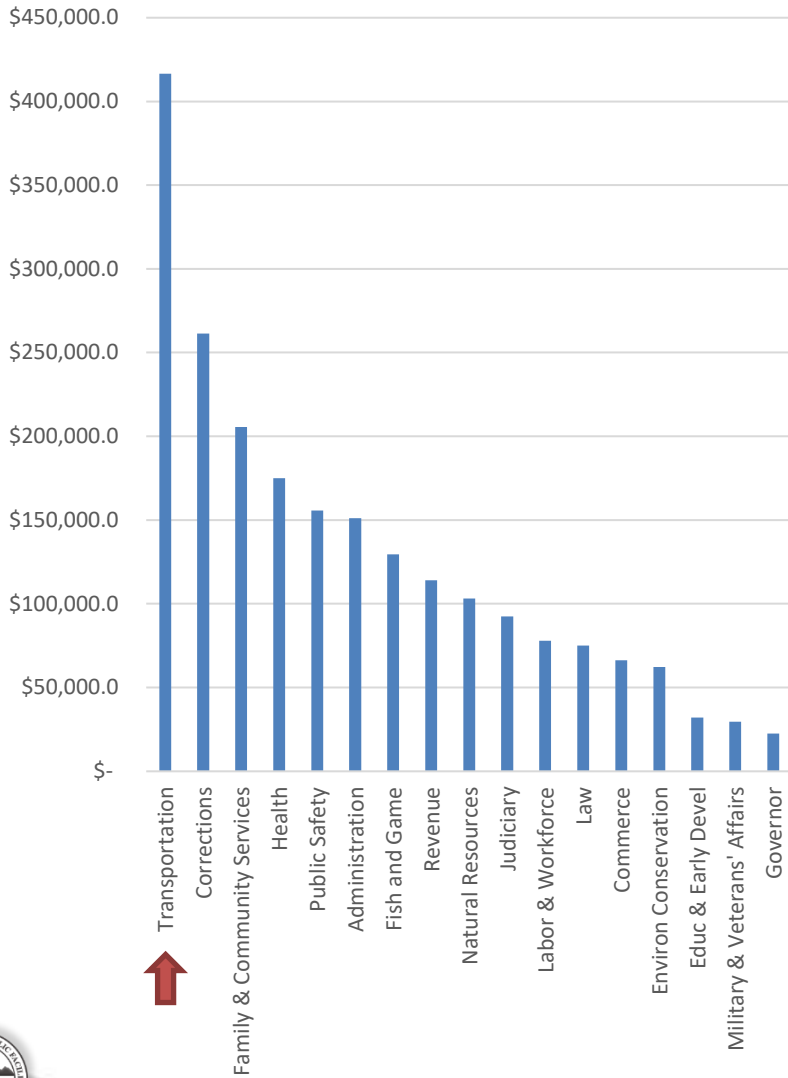


Excludes Alaska Marine Highway System, DFS = Division of Facilities Services, SEF = Statewide Equipment Fleet

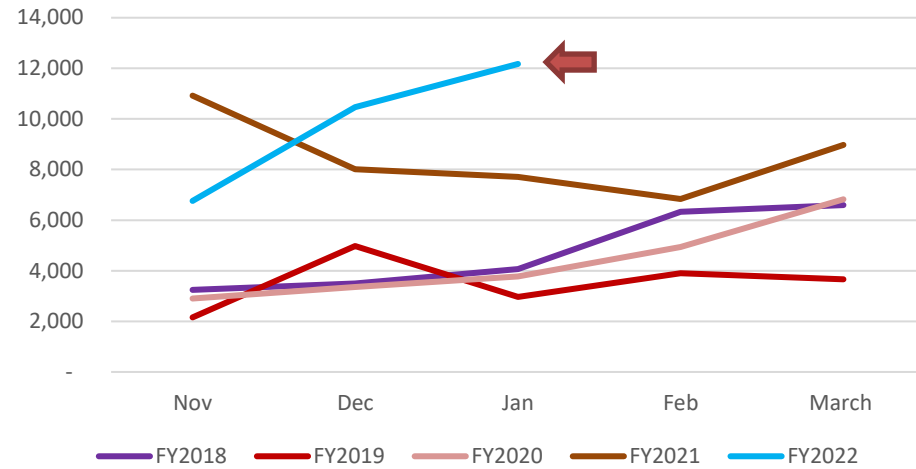


Workforce Strategies

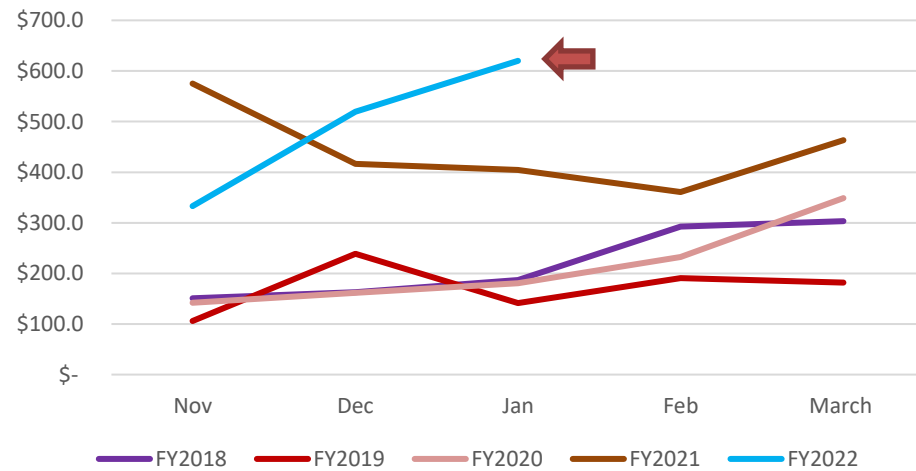
Budgeted Personal Services



DOT Equipment Operator Overtime Hours



DOT Equipment Operator Overtime Total Cost



\$ in Thousands (1,000)



Extreme Weather Capital Appropriations

FY2021 Supplemental - \$1M

“Reappropriation for Emergency Weather Events”

https://omb.alaska.gov/ombfiles/22_budget/Supp/FY2021_Supplemental_Capital_Governor_Amend_Backup_5.3.2021.pdf

FY2022 Supplemental - \$4.6M

“Reapprop for Emergency Weather & Catastrophic Events”

https://omb.alaska.gov/ombfiles/23_budget/Supp/Final_Regular_Supplemental_Backup_2.1.2022.pdf

Benefits

- Absorbs expenditure spikes in the operating budget, allowing department to deliver consistent levels of service without sacrifice of other services.
- Use of these funds reserved for contained and defined events, for costs above and beyond what is budgeted.
- Requires HQ Budget review and approval.
- Capital appropriation encourages fiscal constraint and conservation of funds.



Extreme Weather Capital Appropriations



Status of FY2021 Supplemental

- Sterling Highway Landslide \$110.0
- Fairbanks Winter Storm \$890.0 (+1,489.5 in additional funding needed)
 - Expenses to date in accounting system: \$636.2
 - Estimated Expenses:
 - M&O Personnel Services (OT) - \$833.0
 - Commodities (Cutting Edges, Chains, Salt, Chemical, etc.) - \$288.1
 - Travel – (Airport Lighting Repairs) - \$50.0
 - Contractor Services (Graders, Loaders, Dozers, and Side Dumps for Approx. 6-8 weeks of service) - \$1,978.9
 - Capital – (Birch Lake Backup Power generation) - \$50.0

Uses of FY2022 Supplemental

- Fairbanks Winter Storm cont. \$1,489.5 (*see above*)
- MatSu Winter Storm \$158.0
- Kodiak – Pasagshak Road \$65.0
- Thane Road Avalanche – Evaluating. Costs small, but contribute to rising costs for SR

\$ in Thousands (1,000)

Weather: Northern Region



- Primary Event December 25 through December 28, 2021
- Total Precipitation in December: Approx. 50" with 1.5" of rain.
- Heavy precipitation followed by winds and extreme cold.
- Parks, Richardson, Steese, Elliott West were all closed several times throughout the event.

Weather: Northern Region



- All Stations responded with crew OT.
- Brought in off shift operators from Dalton District.
- Held daily update meetings for initial response and 2 week after event.
- Brought on additional contractor resources.

Weather: Northern Region



- NOAA weather briefing meetings and action planning worked well.
- Widespread event and crews stretched beyond normal area boundaries to respond where needed.
- Birch Lake M&O Station power redundancy.
- Icing and wet snow events are becoming more common with frozen pavement conditions. Evaluating conversion of equipment and technologies to better support these conditions.

Weather: Central Region



- Sterling Hwy MP 50 mudslide - Two temporary hires made and the cost of event to date is approximately \$91.0, total costs estimated up to \$150.0
- Wind event over New Year's weekend in the Matanuska Susitna District. No additional hires made. Estimated cost for immediate repairs is \$40.0. Potential future repairs may be \$100.0.

Weather: Central Region



- High winds and low temps, 83 mph gusts, wind chill -35F
- Limited road closures by LEO – Trooper escorts.
- Estimate 15 traffic signals damaged.
- Fourth longest wind event in Mat-Su history.
- Widespread power outages. (Palmer station on generator power throughout much of event.)

Weather: Southcoast Region



- \$475.0 in additional overtime and commodities usage during December 2021/January 2022 period in comparison to the same timeframe in the prior fiscal year
- Increased road closures impacting the traveling public and safety of crew
- Diverted and canceled flights due to icy conditions on airport surfaces
- Existing drainage infrastructure such as ditches and culverts are undersized to handle the volumes of water created by high intensity “atmospheric river” rainfall events.

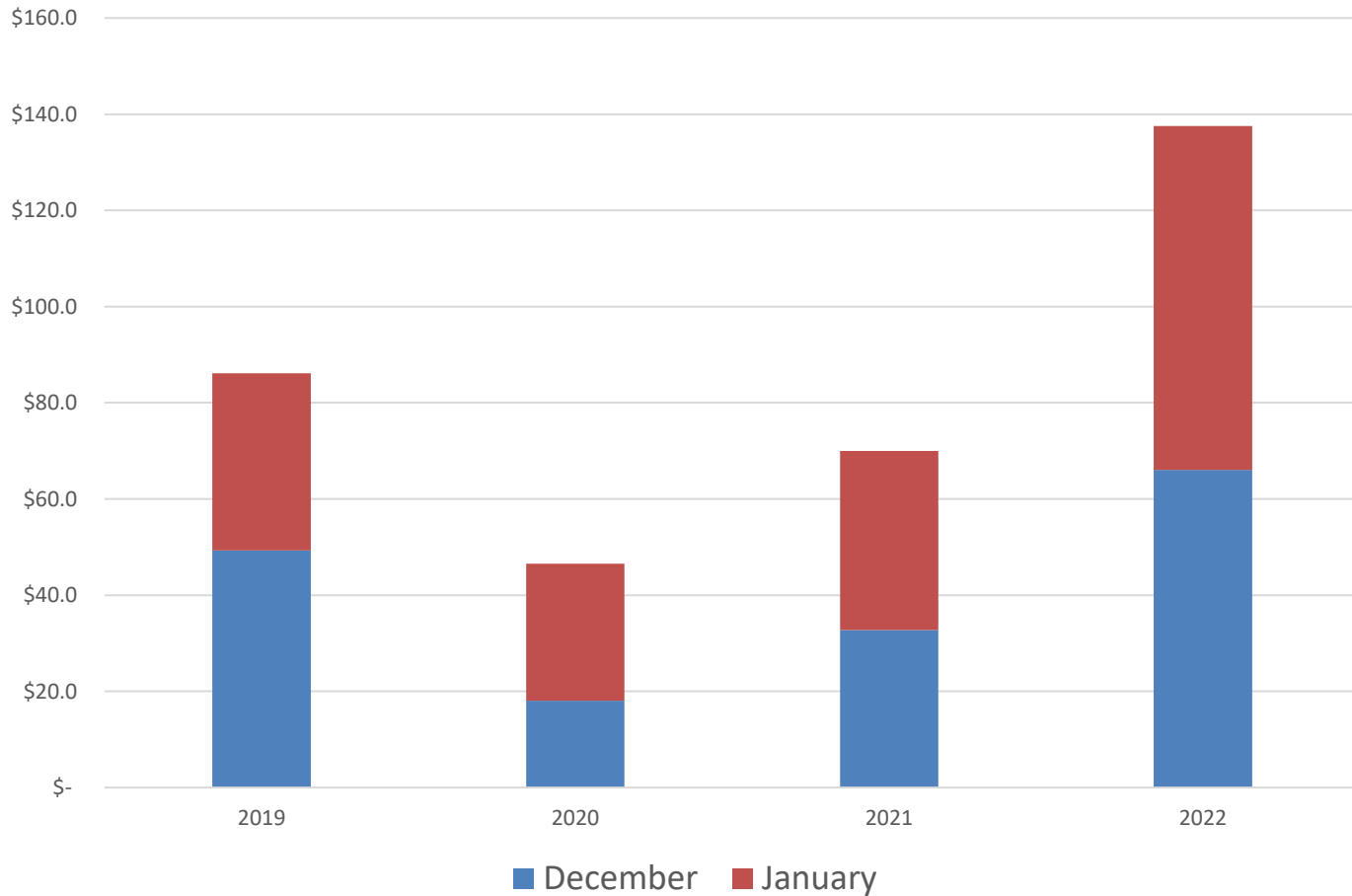
Weather: Division of Facilities Services

- Extensive damage to Public Health Center in Fairbanks, \$6.5 personal services and \$9.0 contractual (damaged fire alarm system repair).
- Experiencing considerably higher costs for contracted snow removal services (FROB, NSOB, PHC, TOK combined facility, Rural trooper housing locations). Already reaching “normal” FY expenses for such services per location with 3-4 months left of snowfall to come. Severe weather event increased snow removal costs by an estimated \$15K-\$20K per building.
- Extreme snowfall in Cordova resulted in extensive roof damage to a Trooper housing unit requiring emergency repair.
- Fairbanks high snow loads this early in the winter has resulted in roof significant snow removal efforts not common in Fairbanks.
- Department of Public Safety contracted \$15.0 of service for roof snow removal.
- Southcoast Region DFS personal services costs for roof snow removal at multiple DOT&PF buildings is approximately \$12.0 since major weather events.
- South Coast regional hub has spent in excess of \$85.0 on snow removal related to extreme events.
- South Coast Region spent approximately \$20.0 in parts and labor on events related to flooding, broken pipes failed drains etc.
- Palmer Courthouse incurred roughly \$23.0 of damage in the recent winter storm.
- Palmer State Office Building incurred in excess of \$36.0 in damage in the recent winter storm.



Weather: DFS Overtime

Division of Facilities Services Overtime Cost



\$ in Thousands (1,000)





Questions?

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