

October 26, 2021



MONTANA FREIGHT PLAN



MONTANA
MDT
DEPARTMENT OF TRANSPORTATION

Montana Freight Summit Kimley»Horn

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Freight Summit Agenda

- Introductions and Meeting Purpose
- Freight Plan Purpose and Overview
- Freight Trends
- Survey Results
- Break
- Breakout Discussion
- Break
- Group Report
- Next Steps



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Planning Team Introductions

Montana Department of Transportation

Sheila Ludlow
Heather Kuklo

Consultant Support Team

Kimley-Horn
Brent Crowther
Joe Lampe
Andrew Wainwright

Cambridge Systematics
Lizzie Welch
Andreas Aeppli

KLJ Engineering
Wade Kline
Chris DeVerniero

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Meeting Purpose



- Discuss Freight Plan Update
- Provide overview of freight trends in Montana
- Hear your thoughts about:
 - Critical issues/needs
 - Anticipated trends
 - Important facilities/corridors
 - Barriers and bottlenecks
- Your input, along with data analysis, will help develop strategies for improvement

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Let's get started!

Are you a Grizzlies or Bobcats fan?



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Let's get started!

- What category of organization do you represent?
 - Government Agency
 - Safety/Emergency Management
 - Manufacturer
 - Carrier/Trucking Company
 - Railway or Port
 - Aviation
 - Industry Association/Representative Organization
 - Other

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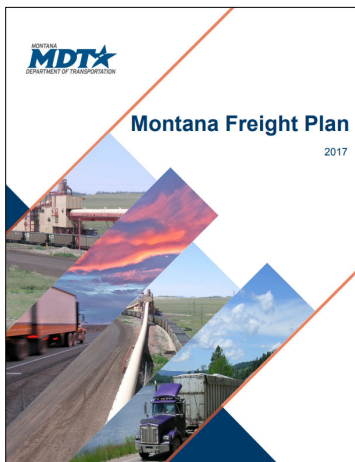
Let's get started!

What area of Montana do you represent/primarily work in?

- Northwest (includes Kalispell, Ronan, Missoula)
- Southwest (includes Butte, Bozeman, Helena)
- Northcentral (includes Great Falls, Lewiston, Havre)
- East (includes Glendive, Miles City, Sidney)
- Southcentral (includes Billings, Hardin, Red Lodge)

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Federal Freight Plan Purpose



- Updated every 5 years
- Required to receive federal funding
- Communicates how freight contributes to Montana's economy
- Identifies significant freight infrastructure and system issues in Montana
- Recommends strategies for improvement
- Guides freight-related transportation investment

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National Freight Strategic Plan

- Established as part of the Fixing America's Surface Transportation Act (FAST Act)
- Defines the vision and goals for the **National Multimodal Freight Network**
- Goals include:
 - Improve safety, security, efficiency, and resiliency
 - Maintain a state of good repair
 - Improve economic efficiency and productivity
 - Improve reliability of freight transportation

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Statewide Planning Efforts

- **MDT mission:** To serve the public by providing a transportation system and services that emphasize quality, safety, cost effectiveness, economic vitality and sensitivity to the environment.



- Broad statewide policies
- 20-year forecast



- Focus on freight
- 5-year forecast
- Updated every 5-years

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Freight Planning Partners

- **Stakeholders**
 - Provide input on needs, issues, and strategies
 - Provide feedback on final documentation
- **MDT Project Team**
 - Guide plan development
 - Stakeholder liaison
- **Consultant Team**
 - Lead data collection and analysis
 - Facilitate stakeholder engagement
 - Prepare final plan and documentation

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Freight Plan Update Schedule

TASK	2021					2022								
	A	S	O	N	D	J	F	M	A	M	J	J	A	S
1 Project Management	[Solid blue bar across all months]													
Technical Advisory Committee Meeting					+				+			+		+
2 Stakeholder Engagement Opportunities														
Freight Summit														
Draft Plan Review														
3 Existing Conditions														
4 Needs Assessment														
5 Strategic and Freight Investment Plan														
6 Final Plan Documentation														

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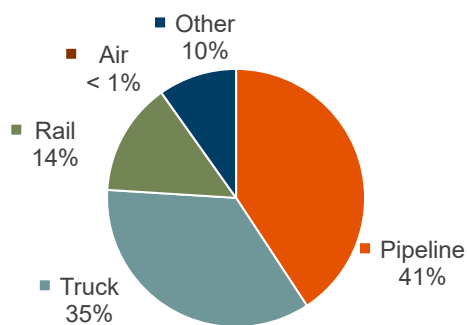
Freight Trends



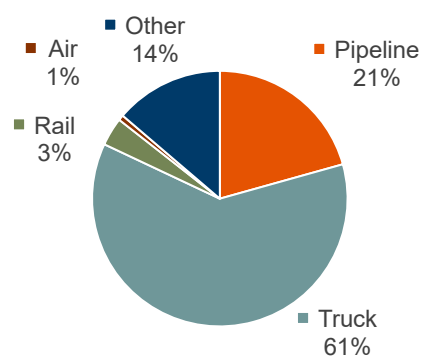
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Freight by Mode (2017)

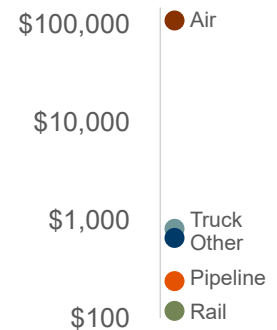
179 Million Tons



\$84 Billion



Value per Ton



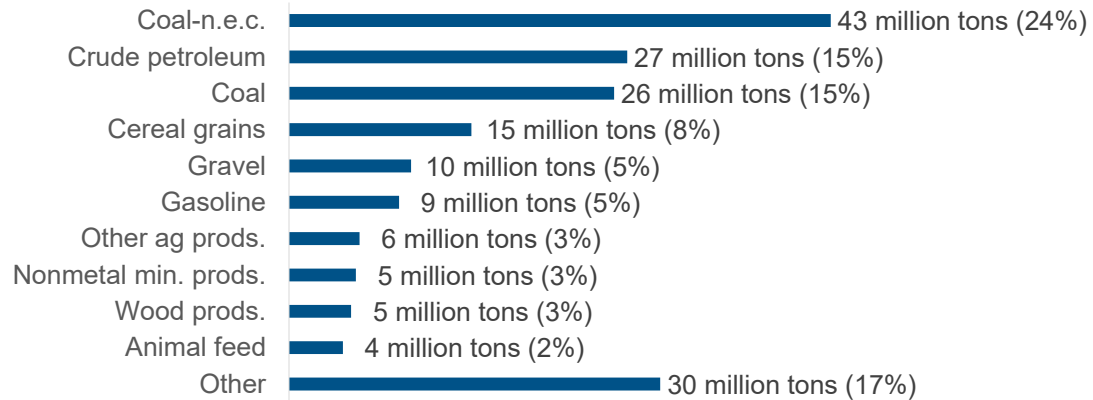
Source: FHWA Freight Analysis Framework, Version 5, 2021

Note: Includes inbound, outbound, and within state freight movements

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Freight by Commodity (2017)

Weight



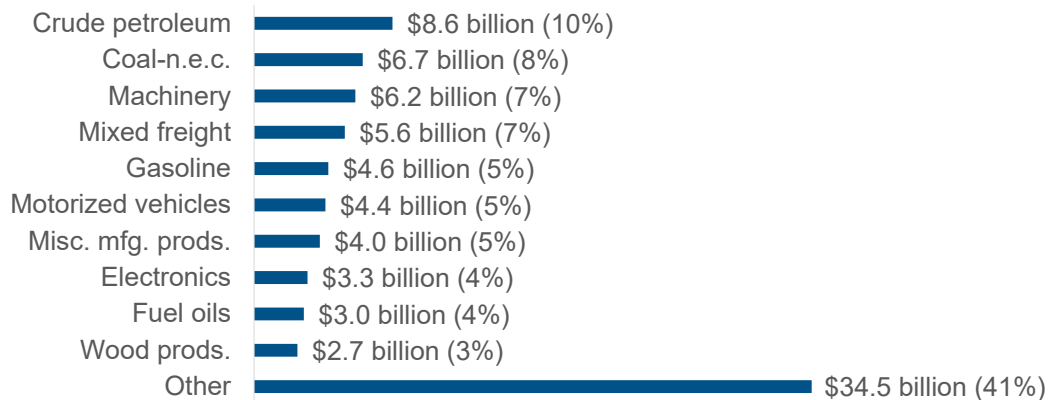
Share of coal (including n.e.c.), petroleum, cereal grains, and gravel all similar to previous plan.

Source: FHWA Freight Analysis Framework, Version 5, 2021 Note: Includes inbound, outbound, and within state freight movements

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Freight by Commodity (2017)

Value



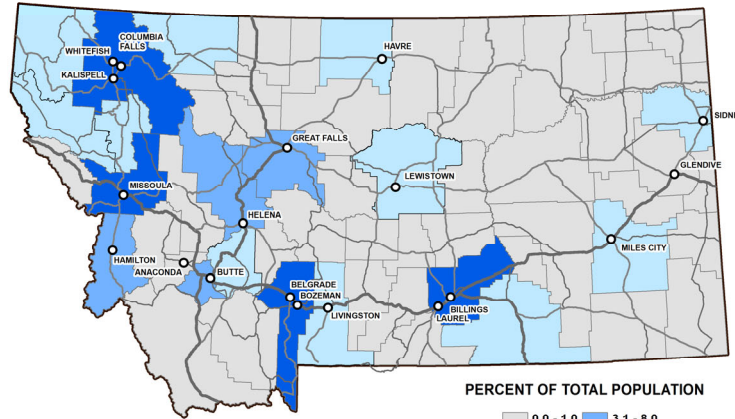
Share of energy commodities slightly down from previous plan. Share of mixed freight (containers) slightly up.

Source: FHWA Freight Analysis Framework, Version 5, 2021 Note: Includes inbound, outbound, and within state freight movements

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Population Growth

- Since the 2017 Freight Plan
 - Montana population up 3.2%
 - National population up 1.8%
- Population density impacts how efficiently residents' freight needs are served

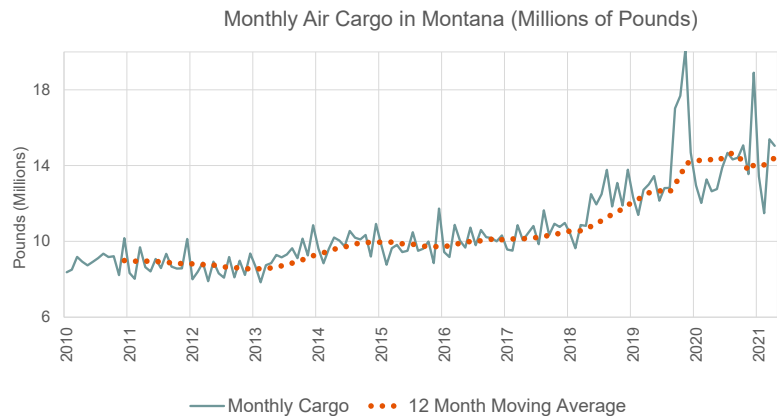


Source: U.S. Census Bureau

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Consumer Patterns

- eCommerce fundamentally changing consumer patterns
- Roadway implications:
 - Increased distribution traffic
 - Non-traditional freight vehicles (vans, personal vehicles)
- Air cargo up 34% between 2017-2020



Source: Federal Aviation Administration

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Oversize/Overweight Traffic

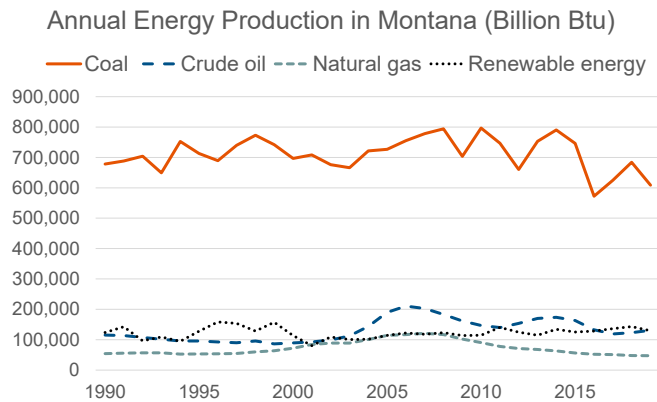
- Common types:
 - Project cargo for wind, crude, and mining
 - Agricultural equipment
 - Permitted loads
- Transportation impacts:
 - Infrastructure wear
 - Highway routing
 - Shift to rail when possible



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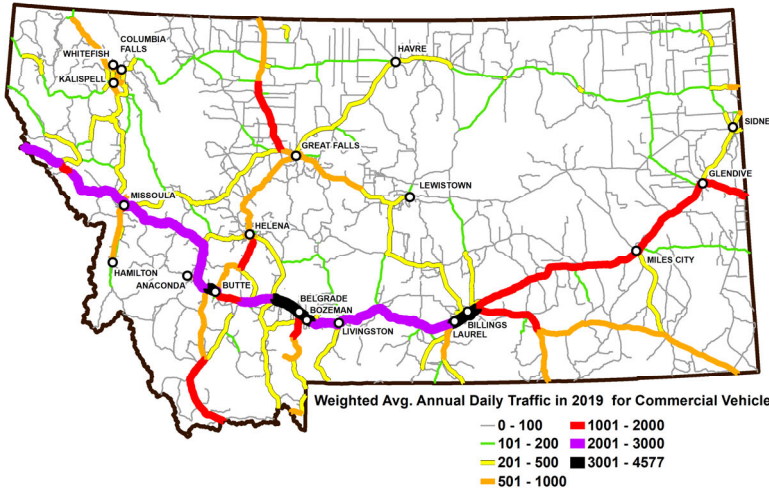
Energy Production

- Change in 3-year average from 2010-2019:
 - Coal: -16%
 - Crude Oil: -24%
 - Natural Gas: -53%
 - Renewable: +16%
- Coal a historical staple of railroads
 - Opportunity to utilize capacity for other growth areas
- Consistency of freight demand
 - Extraction has significant movement throughout life cycle
 - Renewable freight concentrated at startup



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Freight Flows



- Interstate and state highway system carries the majority of truck tonnage
 - Interstate-90
 - Interstate-94
 - Interstate-15
 - U.S. Route 212

Trends consistent with 2017 plan findings

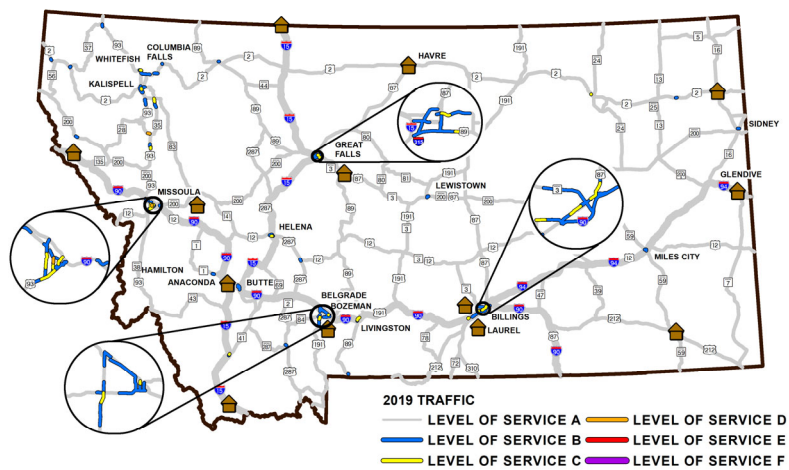
Source: Montana Department of Transportation

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Bottleneck Locations

- Congestion concentrated in urban areas
- Increased traffic observed around multimodal facilities and airports
- Mega-load freight movement causes bottlenecks

Trends consistent with 2017 plan findings

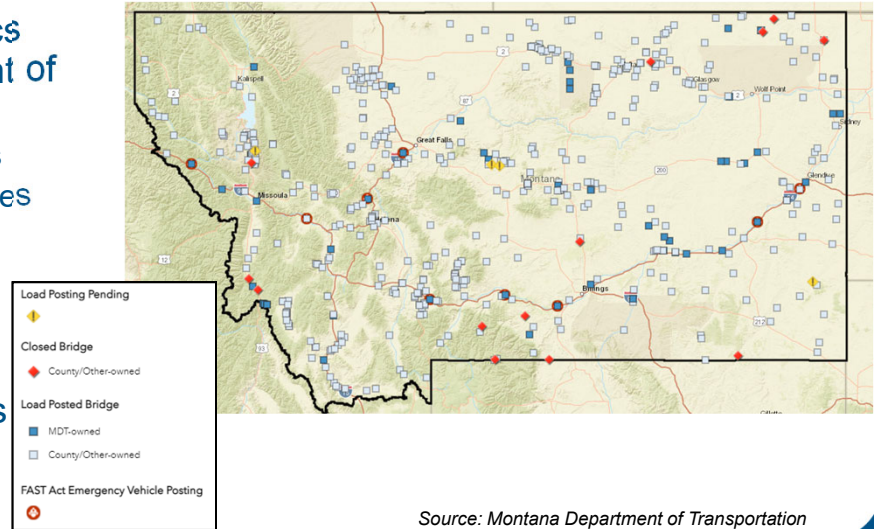


Source: Montana Department of Transportation

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Functionally Obsolete Infrastructure

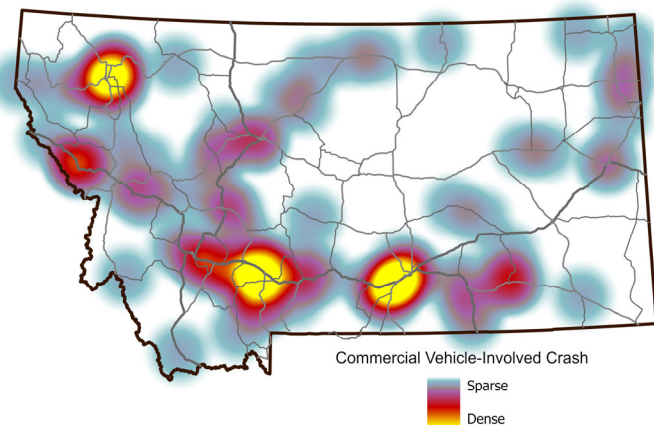
- Bridge characteristics hinder the movement of freight
 - Load posted bridges
 - Low clearance bridges
 - Narrow bridges
 - Wooden bridges
 - Closed bridges
- Need for alternate routing cause delays



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Safety and Crashes

- Safety and improved capacity are top priorities
- Commercial vehicle-involved crashes center around urban areas and along major roadways
- Difficult terrain and adverse weather are high concerns



Source: Montana Department of Transportation

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Freight Survey: Initial Input



<https://www.surveymonkey.com/r/mdtfreightplan>

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What freight-related infrastructure challenges are most pressing in Montana?

- Over half of respondents indicated that crashes/roadway safety is an urgent or moderate-high priority
- Other comments highlighted:
 - Aging road culverts and bridges
 - Grade crossing consolidation
 - Balancing all modes (freight, active transportation, vehicles)

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What freight-related policy changes are most pressing in Montana?

- Nearly three-quarters of respondents indicated that funding for transportation is an urgent or moderate-priority issue.
- Other highlighted priorities include:
 - national trade policies
 - collaboration (data sharing) between state and industry

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How do you expect freight tonnage in Montana to increase over the next 5 years compared to the last 5 years?

- Most respondents indicated that freight tonnage from the energy sector will increase
- Nearly half responded that tonnage from mining and quarrying will see slower growth

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What current trends do you think will have a lasting impact on Montana's freight system?

- Large impact:
 - e-Commerce
- Moderate-to-large impact:
 - Supply chain restructuring from COVID-19; and
 - Industry/vehicle automation
- Moderate impact:
 - Population growth

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Please provide specific examples of how drivers use data and technology. How can MDT respond and improve?

- Comments included:
 - *“Provide current updates on construction, weather, and incidents to help avoid accidents and road closures”*
 - *“State-wide radio station with information specific to an area without having to dial 511”*
 - *“Variable speed limits set up drivers for conflict with noncommercial vehicles; areas with limited passing opportunities are of most concern”*
 - *“Push data to drivers rather than drivers having to seek out information”*
 - *“Share platforms with neighboring states”*
 - *“Detours and delays need to be planned, monitored, and mitigated”*

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Please take the survey and provide your input!

- <https://www.surveymonkey.com/r/mdtfreightplan>
- Thank you to those who have already participated
- Survey open through November 5th



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Break

- 5 minutes
- Please don't leave us!
- Group breakout discussions are up next.

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Breakout Discussion

1. Discuss questions with those in your group
2. Report back to the larger group with findings
3. Input will be compiled and used to inform the plan

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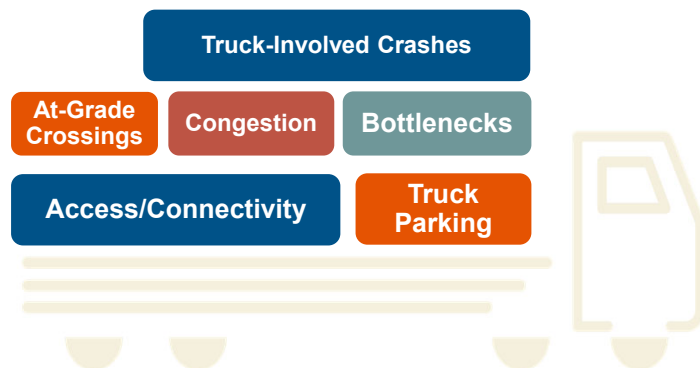
Breakout Discussion

Question 1:

What are your biggest priorities and concerns when thinking about freight movement in your industry and the state?

Types to consider:

- Safety
- At-grade crossings
- Congestion/bottlenecks
- Access/Connectivity
- Truck Parking
- Infrastructure Design



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Breakout Discussion

Question 2:

Are there specialized freight movements in your industry that should be considered in the plan? Do these movements have different infrastructure or operational requirements versus other vehicle or commodity types?

- Specialized freight to consider: oversize or overweight movements, international trade, crops, livestock, mining support
- Differences to consider: vehicle size/infrastructure design, operational times or urgency, intermodal traffic, parking requirements, workforce issues

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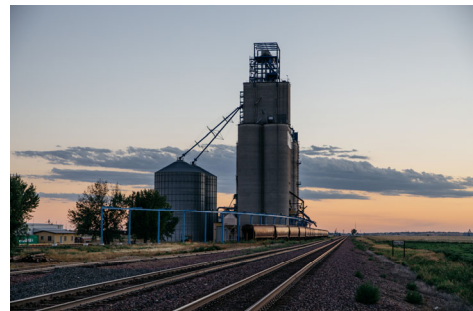
Breakout Discussion

Question 3:

What issues impact the movement of freight along the network?

Types to consider:

- Intermodal volumes
- Limited truck parking
- Mode shifts to/from trucking
- Traffic or community impacts near terminals
- Anticipated opening or closure of terminals or facilities
- Lack of connections to intermodal facilities
- Lack of qualified personnel



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Breakout Discussion

Question 4:

Are there any locations where you see issues with the following?

- Bottlenecks – locations with recurring delays
- Truck parking – rest area capacity issues or frequent unauthorized parking
- At-grade crossings with railroads
- Weather closures – routes or regions with either recurring seasonal closures or periodic severe weather issues
- Others?



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Breakout Discussion

Question 5:

What types of improvements are important to consider as the freight plan is being developed?

- Capacity projects
- Modernization projects
- Safety projects
- Technology/ITS strategies
- Coordination strategies



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Breakout Discussion

Question 6:

What current trends do you think will have a lasting impact on Montana's freight system?

- e-Commerce
- Renewable energy
- Increased shipping costs
- COVID-19 disruptions
- Others?



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Breakout Discussion

Question 7:

When it comes to technology and data sharing, what data or technology could improve freight movement in Montana?

- Road Weather Information System (RWIS)
- Dynamic Messaging Signs (DMS)
- 511 (e.g., weather/roadway information)
- Other?



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Breakout Discussion

Question 8:

Are there any other freight-related issues that you would like to discuss?



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Break

- 5 minutes

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Group Report

- Group 1, moderated by Andreas and **Wade**
- Group 2, moderated by Lizzie and **Chris**
- Group 3, moderated by Brent and **Joe**

Group report: What are the main themes and issues identified by each group?

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Next Steps

TASK	2021					2022								
	A	S	O	N	D	J	F	M	A	M	J	J	A	S
1 Project Management	[Solid blue bar]													
Technical Advisory Committee Meeting					+					+			+	+
2 Stakeholder Engagement Opportunities														
Freight Summit														
Draft Plan Review														
3 Existing Conditions														
4 Needs Assessment														
5 Strategic and Freight Investment Plan														
6 Final Plan Documentation														

Draft of final plan for stakeholder review: **August 2022**

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Thank You

- Please take our survey or send link to others you think would be interested.



<https://www.surveymonkey.com/r/mdtfreightplan>

- Please submit any additional thoughts you may have, to:
Hkuklo@mt.gov
Brent.Crowther@kimley-horn.com
- For more information, and project updates, head to www.mdt.mt.gov/freightplan/