



FREIGHT ADVISORY COMMITTEE MEETING

August 4, 2020



ANNOUNCEMENT

Due to issues with background noise on previous conference calls, participation through phone calls will have limited functionality (no speaking option, only online Q&A and chat).

Note: If you join using your computer audio, you will have speaking opportunities during the meeting.

If you **HAVE** to call in from a phone line and wish ask a question or have a comment during the meeting, please email Michael Baker (mbaker@parametrix.com).



AGENDA

TIME	TOPIC	FACILITATOR(S)
9:00-9:10	Welcome and Introductions	Bill Thompson, NDOT
9:10-9:20	Freight Projects & Funding Updates	Bill Thompson, NDOT
9:20-10:00	COVID-19 Impacts on Freight	Donald Ludlow, CPCS Various FAC Member Input
10:00-10:15	Developing Freight Systems Sustainability	Dike Ahanotu, CPCS
10:15-10:30	Status Update from FAC on Freight Implementation Strategies/Actions/Projects (Table 1-4)	Bill Thompson, NDOT Various FAC Member Updates
10:30-10:45	National Economic Partnership Grant - I-15 Freight Mobility Enhancement Plan Update	Vern Keeslar, Parametrix
10:45-10:50	Truck Parking Availability System (TPAS) Project Update	Bill Thompson, NDOT
10:50-11:00	Next Steps/Questions/Open Discussion	Bill Thompson, NDOT

FREIGHT PROGRAM FUNDED PROJECTS



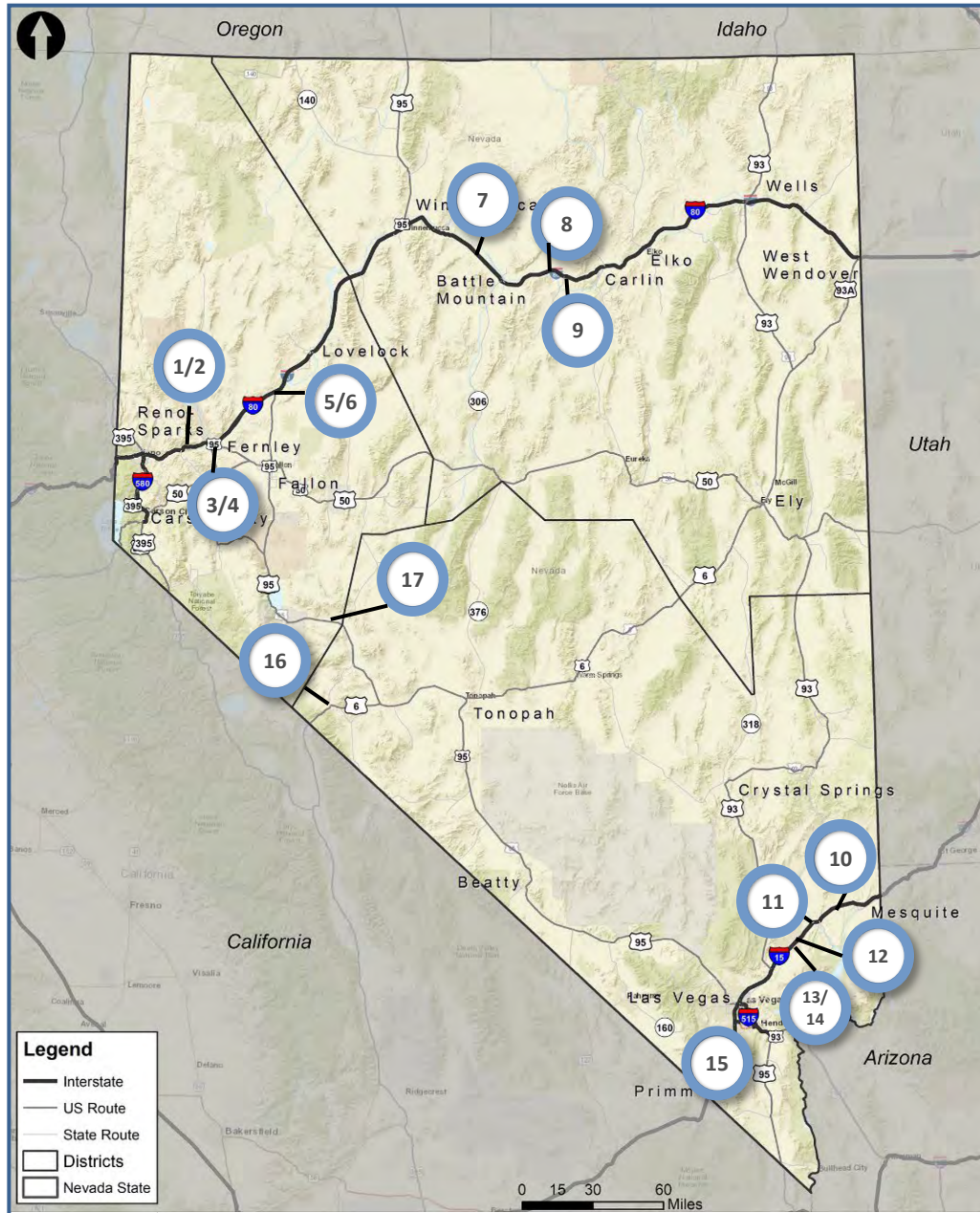
Obligated Freight Funds (\$29.15 M)

- 1 \$12.9 million – NEPA Study Reno Spaghetti Bowl (2016)
- 2 \$0.75 million – **Statewide** Truck Parking Study (2018)
- 3 \$0.3 million – **Statewide** HazMat Study (2018)
- 4 \$0.7 million – I-80 Freight Corridor Study (2018)
- 5 \$6.9 million – I-80 USA Parkway Interchange Improvements (2018)
- 6 \$7.6 million – I-80 Truck Climbing Lanes @ Pequop Summit (2019)

Non-Obligated Freight Funds (\$35.5M)

- 7 \$11.0 million – I-80 Truck Climbing Lanes, Bridge Replacement @ Emigrant Pass (2020)
- 8 \$2.7 million – I-80 SR 306 Ramp Improvements (2021)
- 9 \$3.5 million – I-80 Exit 173 Ramp Improvements (2020)
- 10 \$1 million – I-15 Construct Weigh in Motion Station (2020)
- 11 \$7.1 million – Construct Truck Parking **Statewide** (2020)
- 12 \$5.9 million – I-15 MP122 – MP124 Construct Truck Climbing Lanes (2021)
- 13 \$3.5 million – I-15 Exit 100 NB, Exit 111 SB Ramp Geometric Improvements, Additional Truck Parking, and Ramp Gore Lighting (2021)
- 14 \$0.8 million – I-80 Construct Weigh in Motion Station (2020)





Truck Parking Implementation Projects

- 1 \$1.4 million - Mustang Check Station – Regular Parking
- 2 \$1.5 million - Mustang Check Station – Emergency Parking
- 3 \$645. thousand - Wadsworth Rest Area Expansion – Regular Parking
- 4 \$581. thousand - Wadsworth Rest Area Expansion – Emergency Parking
- 5 \$765. thousand - Trinity/Fallon Rest Area Expansion – Regular Parking
- 6 \$1.8 million - Trinity/Fallon Rest Area Expansion – Emergency Parking
- 7 \$1.6 million - Golconda Summit Expansion – Regular Parking
- 8 \$1.2 million - Beowawe Rest Area Expansion – Regular Parking
- 9 \$414 thousand - SR 306 @ I-80 New Parking – Regular Parking
- 10 \$1.6 million - I-15 MP 110 (Mormon Mesa) Expansion – Regular Parking
- 11 \$2.7 million - I-15 MP 96 Expansion – Regular Parking
- 12 \$1.1 million - I-15 MP 88 Expansion – Regular Parking
- 13 \$1.3 million - I-15 MP 84 New Parking – Regular Parking (paved or gravel)
- 14 \$1.0 million - I-15 South Check Station – 26 TP spaces
- 15 \$226. thousand - SR 360 @ US 6 Expansion – Regular Parking
- 16 Done in house - Luning Rest Area Expansion – Regular Parking
- 17 \$4.5 million - TPAS Phase I and Phase II - **Statewide**



COVID-19 IMPACTS ON FREIGHT

Presented by: Donald Ludlow, CPCS





Presentation Overview

Impacts on Supply Chains

Impacts on Transportation Operations

Discussion



2019 Freight Program
Implementation Project



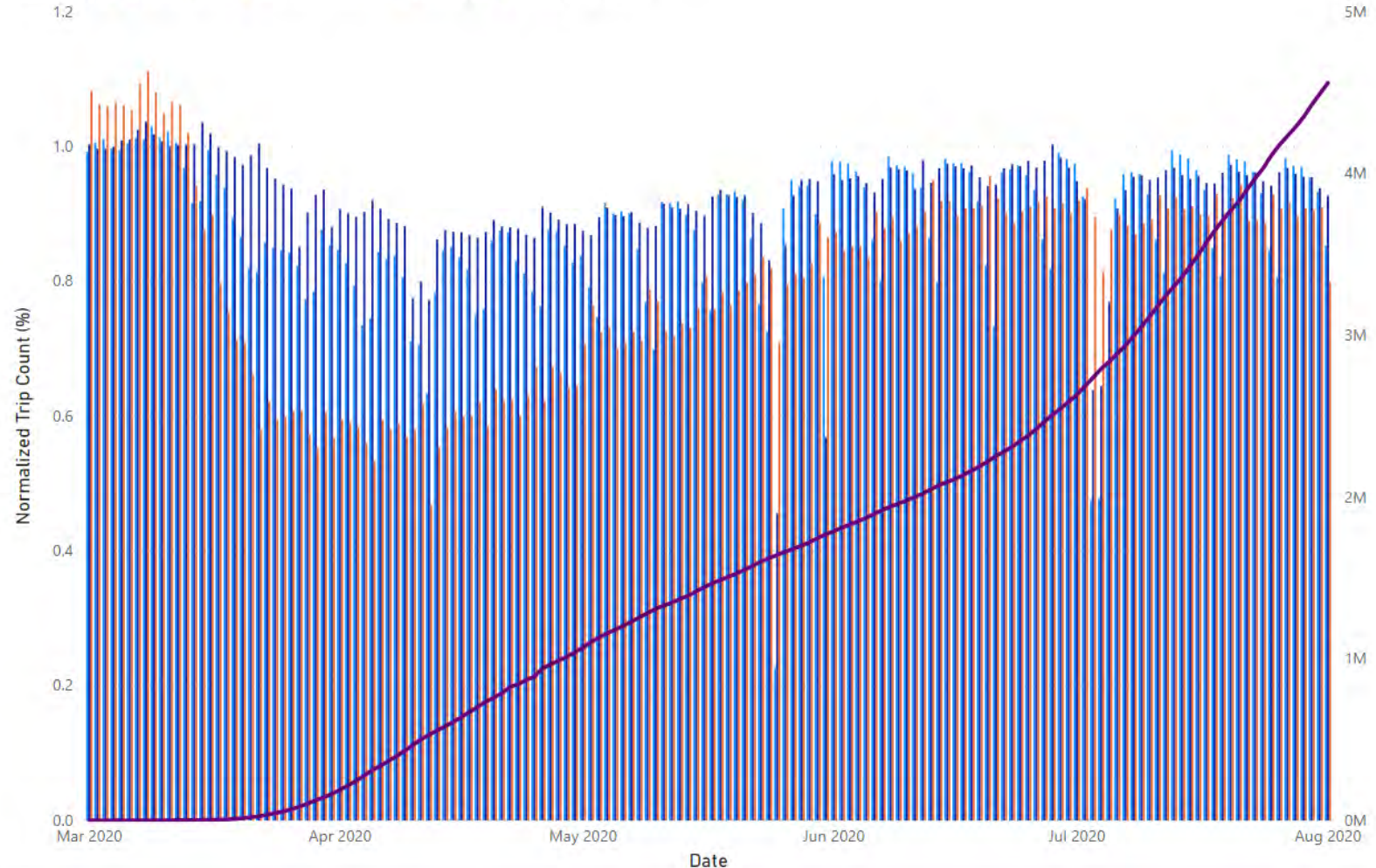
US COVID-19 Mobility Impacts

Country

- 1 - United States
- 2 - Canada
- 3 - United Kingdom
- 4 - Italy
- 5 - Spain
- 6 - Germany
- 7 - Belgium
- 8 - France

Normalized Trip Count and Confirmed Covid-19 Cases by Date

Vehicle Type ● Local Fleets ● Long-Haul Trucks ● Passenger ● Average of Cases



2019 Freight Program Implementation Project



Mobility in Nevada July 2020 (versus January 2020 baseline)

- -20% Retail and Recreation
- -4% Grocery & Pharmacy
- -18% Parks
- -34% Transit Stations
- -38% Workplaces
- +12% Residential

Source: Google Mobility



Source: NDOT



COVID-19 Impact on Supply Chains

How is COVID-19 impacting freight operations?

- The entire supply chain is experiencing disruptions -- supply (production), demand (consumption), *and* transportation issues.
- Employee safety is and will remain the top priority
- Communications and real-time data are critical to supply chain resiliency
- Shift in sourcing – more variation, more local



Source: D Ludlow



COVID-19 Impact on E-Commerce

- **Growth in e-commerce** sales across industries
- E-fulfillment challenges
 - Inventory – product availability, determining how long surge will sustain, determining where to position inventory
 - Increased volume demand, but limited labor capacity
 - Reverse logistics without stores
- Maintaining transparency with customers is critical – **customers want predictability**
- **Future reliance on e-commerce is still evolving**
 - Evolution of harmony between shopping modes
 - More people exposed to and using digital
 - If and when people will feel ready to return to store shopping
 - Evolving future of stores – shopping with a digital influence, curbside pickup, repurposed to micro-fulfillment centers.



COVID-19 E-Commerce Trends

January-March Online Order Spikes

- 807% for PPE and sanitizers
- 217% for over-the-counter drugs
- 231% for toilet paper
- 100% for online grocery shopping
- 87% for canned goods and shelf-stable items
- 55% for fitness equipment
- 40% for desktops and laptops

Source: Adobe Analytics



Source: D Ludlow



COVID-19 Impact on Trucking

- **Demand surges and declines dependent on industry and distance**
 - Surge markets (medical supplies, grocery) vs decline markets (e.g. manufacturing business, retail operations, apparels, metal)
 - Long-haul trips down considerably, but local trips under 100 miles have significantly increased
- **Closing of ‘non-essential’ operations that support ‘essential’ industries have curtailed ‘essential industries’**
 - E.g. truck stops and rest areas, repair facilities, filling empty-miles
- **Potential to drive paper out** of trucking as shippers are looking for ways to reduce contact.
- **Challenge with reopening – patchwork policies across U.S. states**

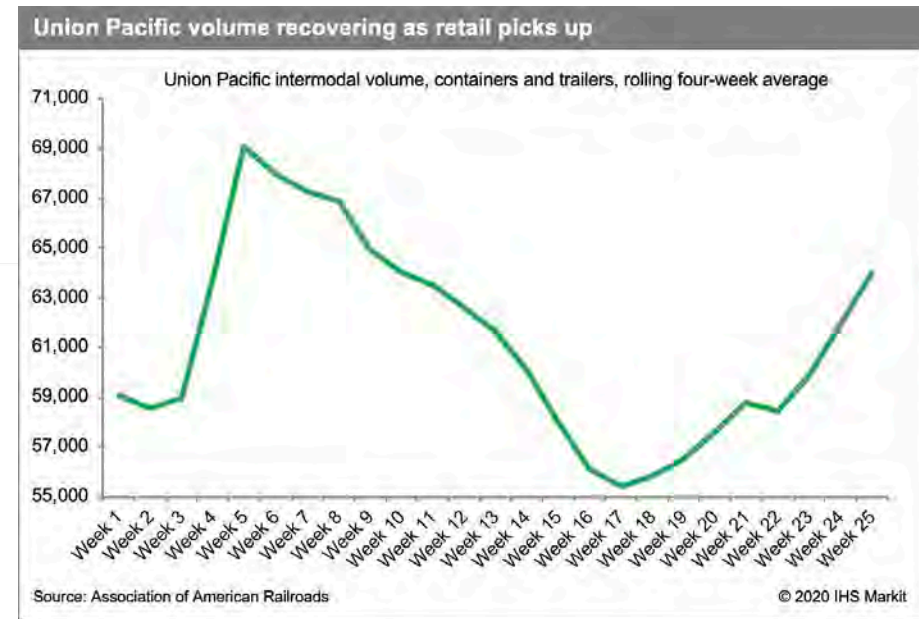


Source: D Ludlow



COVID-19 Impact on Rail

- **Sustained national drop in overall rail demand** and expectation decline will continue.
- **E-commerce surge drives rationing** on UP and BNSF networks in the Western US.
- **Short-term equipment shortage** (e.g. idled locomotives)
- Opportunity to **regain modal share**
 - Social distancing
 - Rebuild the network, maintain, and improve service levels.
 - Developing and leveraging data & technology to provide more information and shipment visibility to customers.
- Rail car leasing and management contributes to increased flexibility and supply chain resiliency
- **Precision scheduled railroading** enables better network and cost structure adaptation.
- **Resilient rail operating model** - rail has the financial strength and asset structure to withstand and adapt to crisis over time.



Changing Trade Patterns: Yesterday?



Source: POLA



Today's Top International Trade Gateway?



Source: CBP



2019 Freight Program Implementation Project

Parametrix CPCS



COVID-19 Impact on Use of Data and Technology

- **COVID-19 highlights supply chain data gaps:**

- **lack of similar historical data**
- Critical need for **detailed, real-time** to make decisions now
- Investment in **culture of data** needed to use and apply data

- **Acceleration of technologies use and development to enhance resiliency**

- Data- and technology-enabled collaboration
- Exploding use of robotics (particularly in warehouses) given current labor safety risks
- Machine learning: continuous learning capabilities needed to optimize on a continuous basis
- Block chain: to move paper out of the supply chain, track goods, provide security

- **Some public-private partnerships to share data and inform decision-making**

- Is data collaboration limited to situations of crisis? Or is there potential for future shift in view of data sharing and collaboration?

“Based on the access [companies] have to the detailed data, and not just the data, but the culture of data-driven decision making, [companies] are able to...pivot their business.”

Stephen Brobst, CTO, Teradata Corporation



Overall Impacts



“It’s like a deep inhale of inbound freight with no exhale, right? And at the same time, the outbound production industries in those geographies were absolutely shutting down...It created just huge supply chain dislocation from a trucking perspective.”

Robert Biesterfeld, CEO, CH Robinson (WSJ July 16, 2020)





Presentation Overview

Impacts on Supply Chains

Impacts on Transportation Operations

Discussion

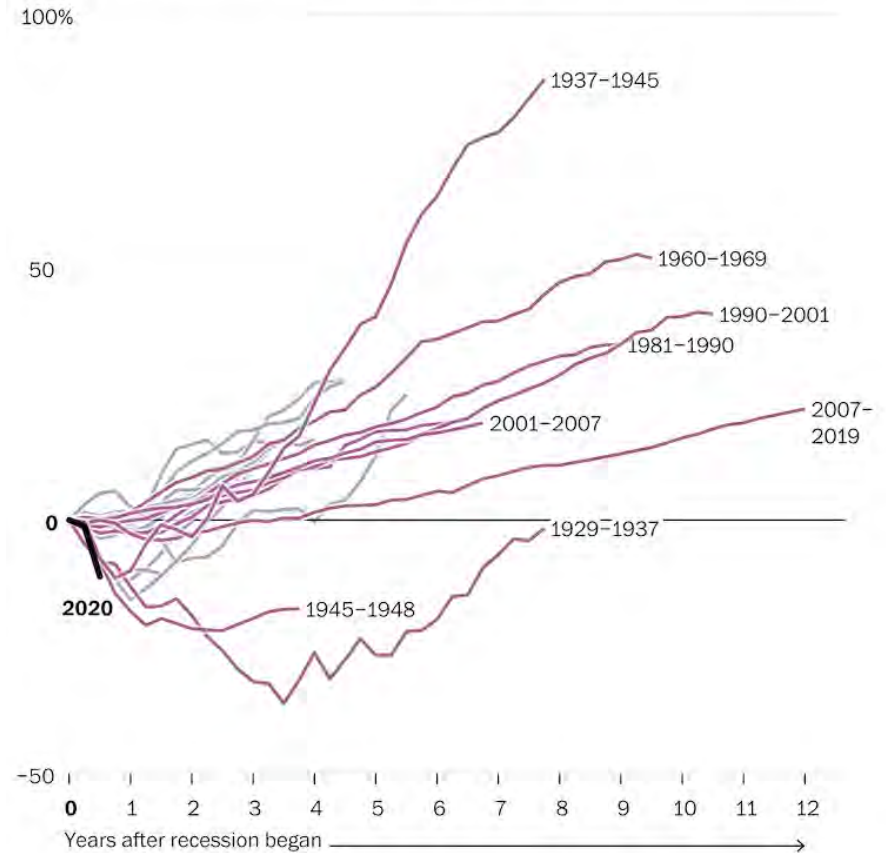


COVID Implications for Transportation Agencies

- **COVID-19 has led to unprecedented changes to economic activity and has the potential to result in lasting changes to the U.S. and globally.**
- **The pandemic has required transportation agencies to respond quickly to new challenges.**
 - Addressing the budgetary implications of massive declines in personal vehicle miles traveled.
 - Deciding if rest areas will remain open and how to meet the needs of truck drivers.
 - Prioritizing projects and providing guidance to contractors to advance essential maintenance and infrastructure projects.
 - Providing extensions to Commercial Drivers Licenses that were scheduled to expire during the pandemic.
 - Providing Overweight permits for the movement of COVID-19 supplies.

Every U.S. recession and recovery since 1900

Change from when each recession began in inflation-adjusted GDP



Note: Seasonally adjusted

Sources: Nathan Balke and Robert Gordon (before 1947); Commerce Department (after 1947)

THE WASHINGTON POST





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2019 Freight Program
Implementation Project



Discussion

- Are there other COVID-related impacts that are specific to Nevada?
- What are the lessons learned from the disruptions of COVID in 2020?
- What are companies and agencies doing to adapt supply chains and operations for continued or future impacts?



Thank You!

Donald Ludlow, MCP, AICP
Vice President
United States Division



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Source: D Ludlow



2019 Freight Program
Implementation Project

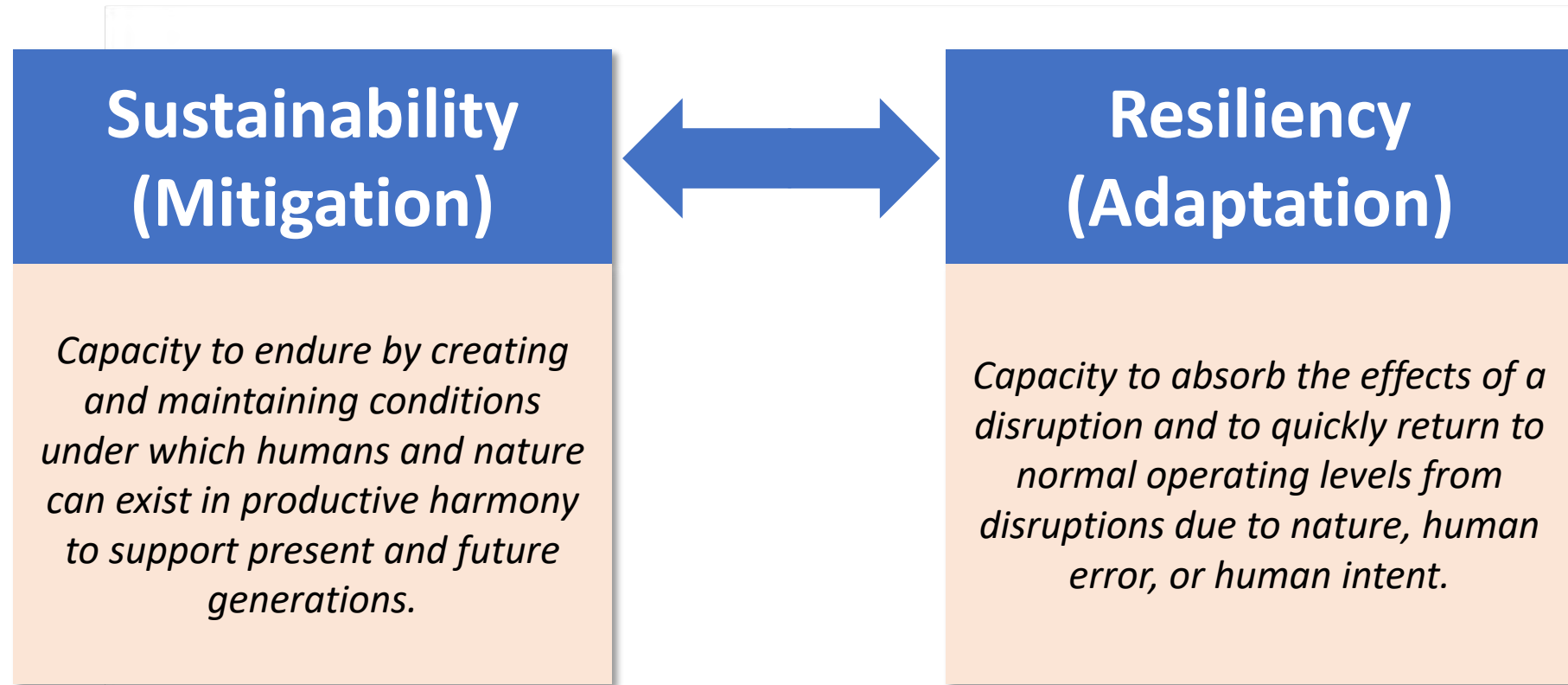


DEVELOPING FREIGHT SYSTEMS SUSTAINABILITY

Presented by: Dike Ahanotu, CPCS



Freight Sustainability and Resiliency





Presentation Overview

Sustainability Trajectory in Nevada

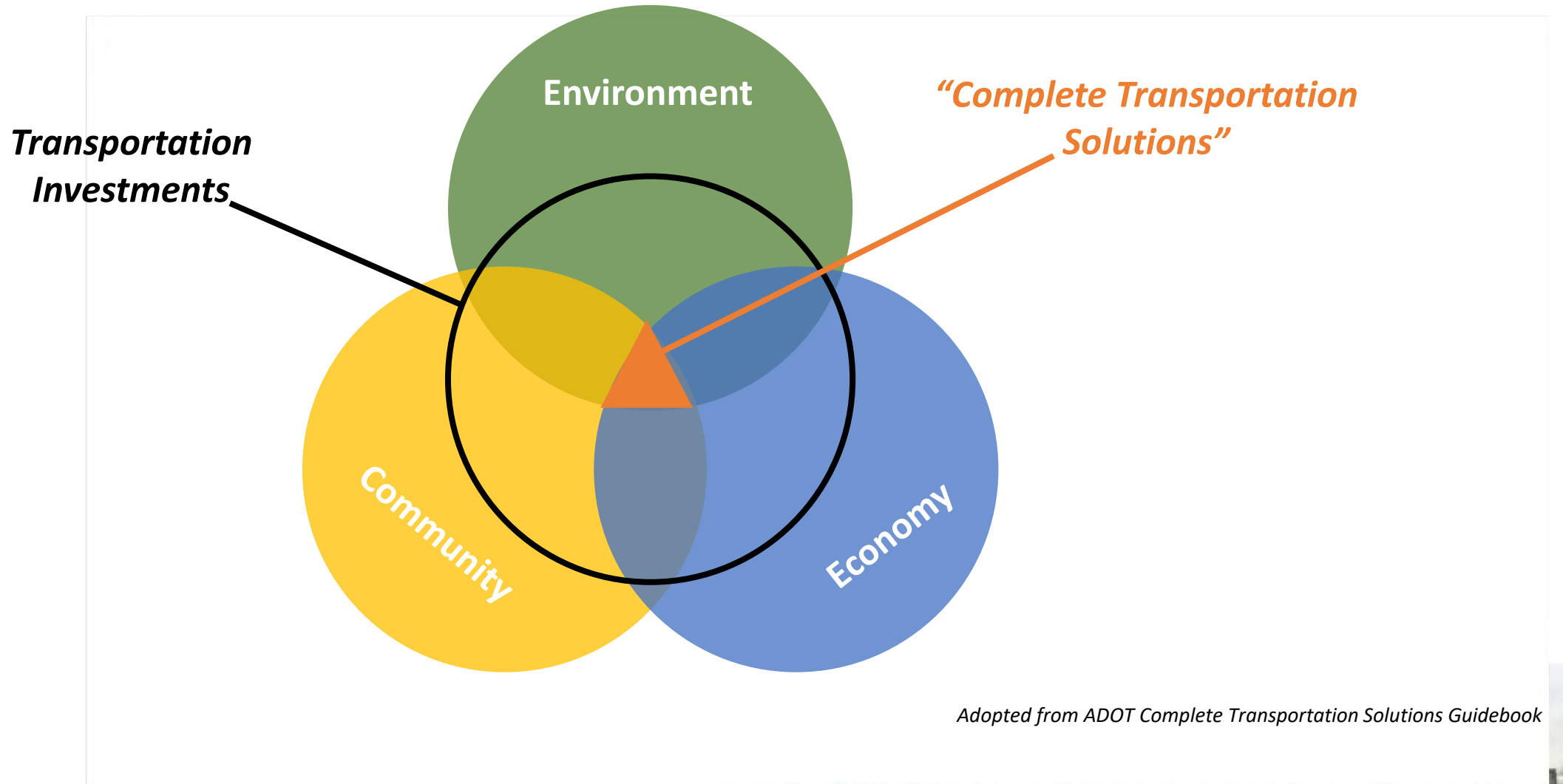
Sustainability Examples in Neighboring States

Incorporation into Nevada Freight Planning

Discussion



Sustainable Economy, Environment, and Community Priorities



Adopted from ADOT Complete Transportation Solutions Guidebook



Transportation Agency Sustainability Maturity Levels

1950-1970	Maturity Level 0: Safe Mobility	Build interstates and reduce fatalities
1970-2000	Maturity Level 1: Compliant Transportation (NEPA)	Achieve letting goal, reduce fatalities, reduce congestion
1985-2015	Maturity Level 2: Green Transportation	Reduce congestion, reduce fatalities, achieve letting goal, emphasis on environmental <u>needs</u>
2010-2030	Maturity Level 3: Sustainable Transportation	Improve mobility, reduce congestion, reduce fatalities, achieve letting goal, emphasis on environmental and sustainable <u>solutions</u>
2025-onwards	Maturity Level 4: Triple Bottom Line Sustainability	Improve mobility, reduce congestion, reduce fatalities, emphasis on environmental and sustainable <u>programs</u> , improve society as a responsible steward



Sustainability Legislation and Rulemaking

Nevada Legislation	Federal Rulemaking	Infrastructure Bill Status
<p>2019 Senate Bill 254</p> <ul style="list-style-type: none"> Reduce GHG by 28% by 2025, 45% by 2030 and 0% by 2050 Statewide inventory and projection of GHG emissions and statement of policies to address GHG emissions <p>2019 U.S. Climate Alliance</p> <ul style="list-style-type: none"> Nevada joined the bipartisan, 25-state U.S. Climate Alliance committing to the Paris Accord <p>2019 Senate Bill 358</p> <ul style="list-style-type: none"> Commits to raising Nevada’s renewable portfolio standard to 50% by 2030 and 100% clean energy by 2050 <p>2020 Executive Order 2019-22</p> <ul style="list-style-type: none"> GHG inventories every 4 years, 20-year GHG emission projections Climate strategy document 	<p>2020 Final Rule – EPA / National Highway & Safety Administration</p> <ul style="list-style-type: none"> Reduces vehicle fuel efficiency standards to annual 1.5% miles-per-gallon increase for model years 2021-2026 <p>2020 Proposal – NDEP</p> <ul style="list-style-type: none"> New tailpipe emission standards for light- and medium-duty vehicles starting in 2024 Require dealerships sell a certain percentage of zero-emission vehicles 	<p>2019 Senate - America’s Transportation Infrastructure Act</p> <ul style="list-style-type: none"> Increases NHFP to \$8.5 billion over 5 years INFRA increases to \$5.5 billion Up to 30% for multimodal projects <p>2020 House - INVEST in America Act</p> <ul style="list-style-type: none"> Prioritizes carbon pollution reduction and measures Specifies NHFP reduces GHG emissions and local air pollution Raises cap on amount of freight funding available for non-highway projects Provides \$125 million in FY2022 for freight projects in a gridlock reduction grant

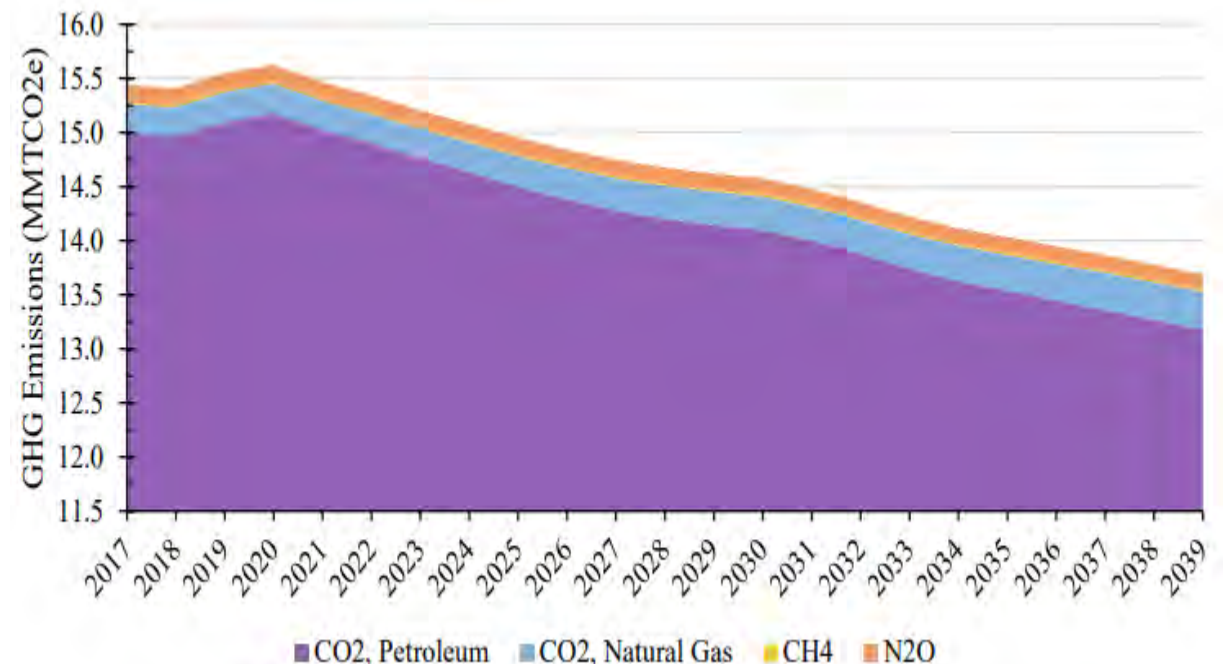


State GHG Emissions – Transportation Sector

NDEP Statement of Policies for Transportation GHGs

- New Vehicle Emission Standards
- Reduction of Vehicle Miles Traveled
- Equitable Transportation Funding Solution
- Exemption for Emissions Inspection for Certain Motor Vehicles
- Incentivize Statewide Transition to Low and Zero Emission Vehicles
- Procurement
- Low Carbon Fuels

Transportation Sector GHG Emission Projections in Nevada 2017-2039



Adopted from NDEP GHG Report 2019

In 2015, state GHG emissions from the transportation sector (35%) overtook electricity generation as the largest source of emissions.



One Nevada Transportation Plan

6 Key Goal Areas:

- **Enhance safety** by building, maintaining, and operating the safest transportation system possible.
- **Preserve infrastructure** to support economic vitality, visitor experience, and travel safety.
- **Optimize mobility** to provide convenient and reliable movement of people and goods across all modes.
- **Transform economies** by supporting an innovative transportation framework.
- **Foster sustainability** by lowering long-term maintenance costs, promoting fiscal responsibility, and reducing greenhouse gas emissions from the transportation sector.
- **Connect communities** to local resources and amenities and collaborate with partners to best serve our communities.



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California Sustainable Freight Action Plan

Caltrans Updates

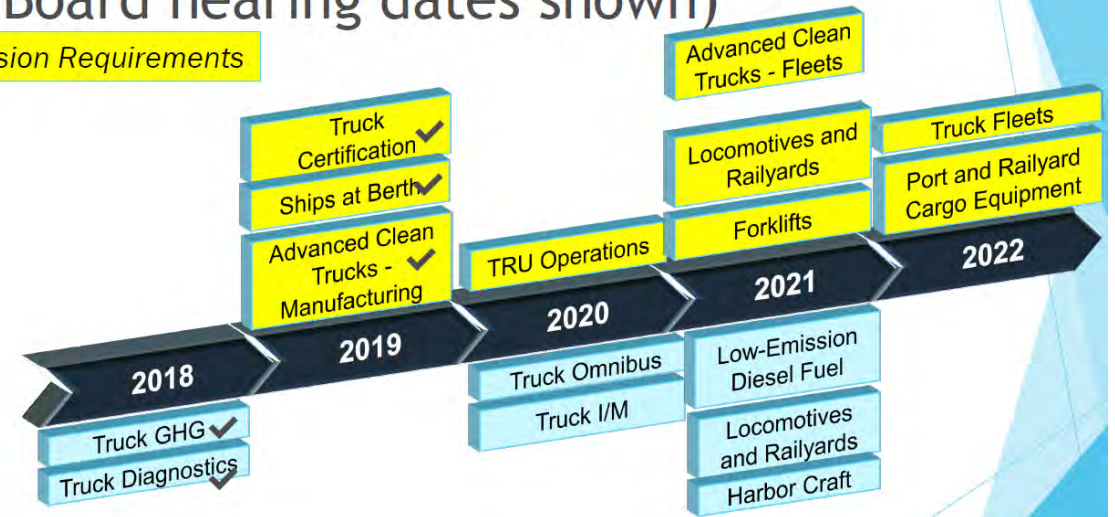
- ▶ Advanced Technology Corridors at Border Ports of Entry (POE) Pilot Project
- ▶ Advanced Technology for Truck Corridors Pilot Project
- ▶ Statewide Truck Parking Study
- ▶ California Short Line Rail Improvement Plan

Energy Commission Updates

- ▶ Recent Integrated Energy Policy Report (IEPR) workshop on heavy-duty ZEV market trends 05/20/20
- ▶ Update to the California Vehicle-Grid Integration Roadmap
- ▶ New website for the CEC's biennial charging infrastructure assessment under AB2127
- ▶ CEC/CARB Upcoming Grant Funding Opportunity: Zero-Emission Drayage Truck and Infrastructure Pilot Project
- ▶ CEC Upcoming MD/HD ZEV Blueprint Funding Opportunity

New CARB Freight Regulatory Actions (1st Board hearing dates shown)

Zero Emission Requirements



GO-Biz Updates

- ▶ California Sustainable Freight Foundations Certificate For Middle Managers: A Workforce Development Pilot Project for the CSFAP



Utah Inland Port Authority

FIGURE 1: UIPA OBJECTIVES



Position Utah as the Leading Trade and Logistics Hub



Advance Sustainable and Smart Supply Chains



Be a Responsible Steward of the Environment and Local Communities



Effectively Manage UIPA Resources

FIGURE 2: UIPA ROLES

Technical Expert on logistics issues, needs, and opportunities across the state.

Sustainability and Innovation Leader promoting innovative, equitable, and sustainable development solutions in the logistics sector statewide.

Facilitator of cross-cutting dialogue among public, private, and NGO stakeholders for logistics solutions.

Financial Catalyst for policies and programs related to strategic priorities.

Responsible Custodian of public resources to ensure efficiency and effectiveness in operations.

The Strategic Business Plan

The Strategic Business Plan will guide the Utah Inland Port Authority (UIPA)'s approach and strategies for promoting sustainable, equitable, and smart logistics investment through partnerships, policies, and programs for FY2020-2024. This is the UIPA's first strategic document and will be used by UIPA over the next five years to direct its partnerships, policies, and programs. Implementation plans of specific projects statewide will follow from the plan's strategies.

The Strategic Business Plan outlines the following goals, strategies, and target actions.

Source: Utah Inland Port Authority Strategic Business Plan Executive Summary, 2020



Arizona DOT Sustainability Operational Focus Areas

Sustainable Transportation Planning

- MPD/MPO/COG sustainability tools training
- I-11 Intermountain West Corridor INVEST use
- ADOT MPD/MPO/COG Guidebook Update, Complete Transportation Guidebook
- Sustainable Outreach with Arizona Tribes

Sustainable Transportation Project Development

- EASPD Award Program
- Continue INVEST PD Scoring
- Sustainable Earthwork Plan, Sustainable Pavement System Pilot Program
- Upgrade Standard Specifications – waste, LED lighting, HDPE Pipe
- Project scoping documents, FHWA Every Day Counts Technology adoption

Sustainable Transportation Operations

- USDT Office of Operations project partnering
- ADOT incorporation of TSMO activities
- FHWA Arizona Division Office activities
- Upgraded heavy equipment idling policy, High friction surface treatment use
- TSM case studies to advance national conversation

Sustainable Transportation Maintenance

- INVEST OM Scoring Project
- District Sustainability Working sub-group
- PeCoS maintenance performance system upgrades Millings Reuse Policy development, Leverage the idling policy, Leverage equipment services fuel efficiency plan
- Final Report INVEST O&M
- Tie OM to performance measures and TAMP

Sustainable Transportation Agency

- Comprehensive Internal Sustainability Plan, **Provide support for alt. fuel vehicles**
- Consolidated energy use plan, Consolidated recycling plan, Expand university outreach
- Begin sustainable freight subprogram**
- Continue to tie link to key commerce corridors**
- Maintain national leadership role, Assist TRB in framing global sustainable transport



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Nevada State Freight Plan

Strategic Goals of the Freight Plan



Economic Competitiveness

Improve the contribution of the freight transportation system to economic efficiency, productivity, and competitiveness.



Mobility & Reliability

Provide an efficient and reliable multimodal freight transportation system for shippers and receivers across the State.



Safety

Improve the safety of the freight transportation system.



Infrastructure Preservation

Maintain and improve essential multimodal infrastructure within the State.



Advanced Innovative Technology

Use advanced technology, innovation, competition, and accountability in operating and maintaining the freight transportation system.



Environmental Sustainability & Livability

Reduce adverse environmental and community impacts of the freight transportation system.



Sustainable Funding

Fully fund the operations, maintenance, renewal, and expansion of the freight transportation system.



Collaboration, Land Use, and Community Values

Establish an ongoing freight planning process to coordinate the freight transportation system and ensure consistency with local land use decisions and community values.



Nevada State Freight Plan

BASELINE PERFORMANCE

Summary of Goals, Objectives, Performance Measures and Targets, and Baseline Conditions (Continued)

Environmental Sustainability & Livability

Reduce adverse environmental and community impacts of the freight transportation system.

Objective:

Vehicular Emissions: Reduce vehicular emissions by reducing congestion, deploying technologies that improve the fuel-efficiency of commercial vehicles, and providing better mode-choice and integration to encourage utilization of the most sustainable options.

Measure: Percentage of trucks registered within the state having an engine model-year of 2010 or newer

Measure: Truck speeds on I-15, I-80, I-580, US 395, US 93, US 95, I-215/CC-215

Baseline:

2015 Trucks registered in Nevada with MY2010 or newer engines: 22%

Baseline:

2015 Conditions: 42 locations with speeds below 40 mph

Target: \geq 4% new trucks registered per year



Target: 10% reduction by 2021.

Score: 

Analysis: A majority of Nevada-based trucking fleets operate within California, and are required to meet the CARB GHG emissions standards, providing a direct benefit to Nevada. As a result, there has been a steady increase of approximately 4% per year of newer vehicles (14% in 2013 to 18% in 2014), which is expected to continue to rise through 2023 as fleets continue to be upgraded.

Score: 

Analysis: Travel speeds during afternoon peak periods (4 to 6 pm) on the major truck routes were evaluated to identify some of the chokepoints on major truck corridors. During the month of July 2015, there were 42 locations where the average truck speed during the afternoon peak period dropped below 40 miles per hour.

 Maintain or Needs Some Improvement  Needs More Improvement  Needs Significant Improvement  Not Yet Scored

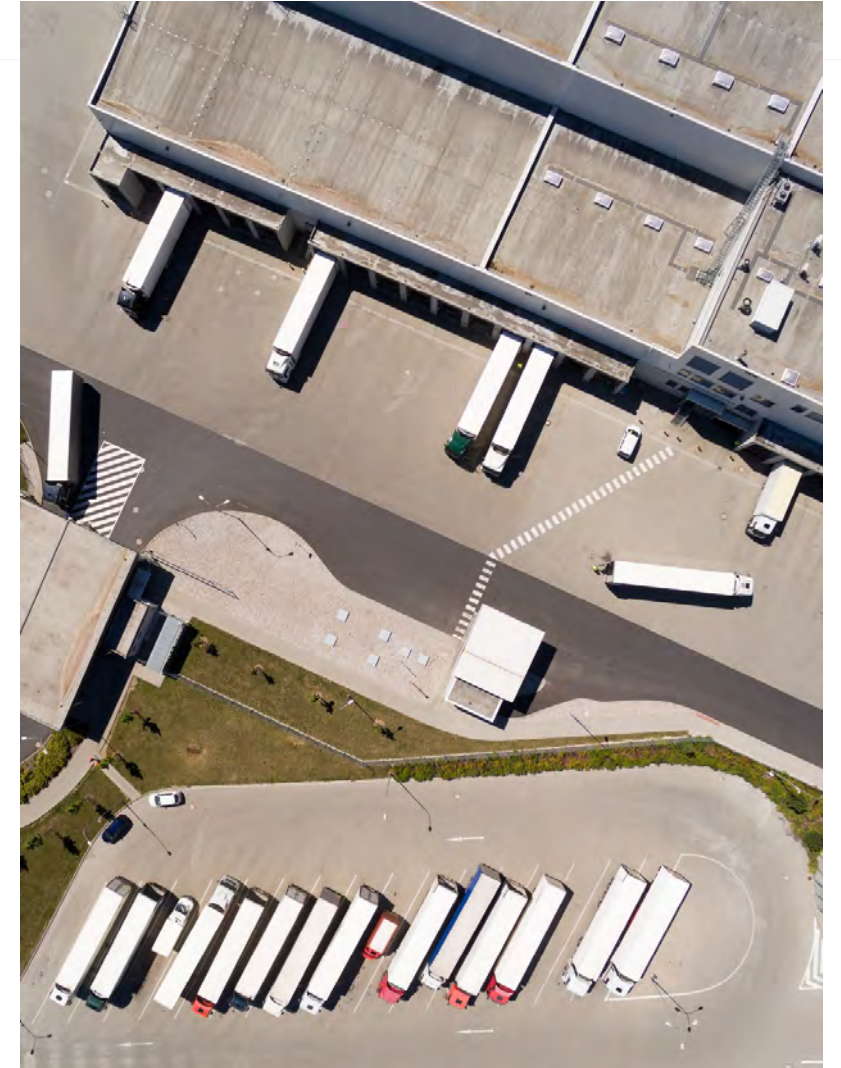


Sustainability Program Design



Emerging Freight Sustainability Themes

- Examine Relationships with Key Stakeholders
 - Energy, environmental, business agencies are all critical
 - Consider participation by emerging community groups
- Scenario Planning
 - Determine how sustainability options fare under different transportation, technology, and economic outcomes
- Focus on Supply Chains
 - Not all bottlenecks are of equal importance
- Implement Select Data and Technology Programs
 - Track private sector developments (e.g. hydrogen vs. electric trucks)
 - Learn from pilot programs across the country





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Incorporation into Nevada Freight Planning

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2019 Freight Program
Implementation Project



STATUS UPDATE FROM FAC ON FREIGHT IMPLEMENTATION STRATEGIES / ACTIONS / PROJECTS (TABLE 1-4)

Presented by: Bill Thompson, NDOT



Immediate-Term Actions



2019 Freight Program
Implementation Project



Table 1-4. Freight Strategies and Implementation Actions - IMMEDIATE-TERM ACTIONS

Strategy		Actions	Timeframe to Initiate Action	Lead Agency/ Contact	Status	
1	Advance multi-use corridor planning for I-11.	1.1	Conduct an analysis of the regional freeway system in Southern Nevada, and determine how and where the I-11 corridor would most appropriately fit in the network.	2017-2019/ongoing	NDOT/David Bowers	Ongoing
		1.2	Perform a series of studies to assess the strategic extension of I-11 from Las Vegas to the Canadian border, comprising two levels of investigation: (1) detailed corridor planning to determine a single preferred I-11 corridor between the Las Vegas metropolitan area and Northern Nevada border, and (2) high-level visioning to assess the most logical connection to Canada, based on the greatest economic and trade-related opportunities.	2017-2019	NDOT/Kevin Verre	Completed/ Ongoing
2	Facilitate private development of intermodal facilities in Northern and/or Southern Nevada.	2.1	Identify and facilitate private development opportunities for intermodal facilities.	2017-2019/ongoing	GOED/Kristopher Sanchez (Deputy Director) NNDA Northern Nevada Development Authority , Rob Hooper	Ongoing
3	Deploy technologies that improve the fuel-efficiency of commercial vehicles, and provide better mode-choice and integration to encourage the most sustainable freight transportation options.	3.2	Work with the FAC to recommend a mode policy that encourages moving freight in the most sustainable manner.	2017-2019	Nevada Trucking Association / Paul Enos NDOT/ Lee Bonner	Planned
4	Preserve and renew Nevada’s freight highway network.	4.1	Update the State Highway Preservation Report every two years to keep an accurate assessment of current maintenance needs to renew funding allotments by the Nevada State Legislature.	2017-2019/ongoing	NDOT	Completed/ Ongoing
		4.2	Determine a reliable source of funding for implementation of needed preservation/maintenance requirements.	2017-2019	NDOT/Kevin Verre	Ongoing
5	Develop a preservation and expansion program for short-line freight rail infrastructure.	5.1	Establish a policy to strengthen NDOT’s role in rail planning and implementation, including funding. Establish a policy and criteria for state involvement in rail preservation. Based on criteria, identify investments on short-line rail infrastructure and service preservation.	2017-2019	NDOT/Lee Bonner FAC	Planned
		5.2	Develop a new rail spur to the Apex Industrial site in Southern Nevada to serve existing and near-term anticipated manufacturers.	2017-2019	RTCSNV/Beth Xie	Planned
7	Develop a method to track and integrate freight transportation, land use, and economic development planning along major freight corridors in Nevada.	7.1	Form land use advisory committees throughout the state to coordinate with NDOT on changes in land use strategies that may impact access along state- owned freight corridors, as well as new land developments that may impact the movement of freight vehicles.	2017-2019/ongoing	NV League of Cities & Municipalities NV Assoc. of Counties RTCS/MPOs FAC	Planned
8	Maintain organization of the FAC to advise on implementation of freight strategies statewide.	8.1	Establish a schedule and process for convening or engaging the FAC in freight-related planning issues and progress upon completion of the NSFP.	2017-2019/ongoing	NDOT/Bill Thompson	Completed

Strategy		Actions	Timeframe to Initiate Action	Lead Agency/ Contact	Status	
9	Maintain organization and coordination of the WSFC to advise and support on regional freight issues, projects, and policies.	9.1	Establish the mission, organizational structure, process, and schedule for engaging the WSFC in freight-related planning issues upon completion of the NSFP.	2017-2019/ongoing	NDOT/Bill Thompson	Completed/ Ongoing
10	Encourage logistics and manufacturing- based companies and organizations to pursue workforce development training opportunities.	10.1	Advise on known educational/training opportunities at FAC meetings and encourage members to pursue educational opportunities	2017-2019/ongoing	FAC Nevada Trucking Association/Paul Enos	Planned
11	Pursue freight-related research through NDOT’s Research Section to improve the State’s readiness and adaptability to new freight movement and technology trends.	11.1	Develop freight related problem statements to submit to NDOT’s Research Section.	2017-2019/ongoing	NDOT/Bill Thompson	Ongoing
12	Incorporate autonomous system technologies into Nevada’s freight system.	12.1	Understand and develop strategies to respond to advances in autonomous/connected vehicle technology and their impact on the freight transportation system, including related “smart infrastructure” to support implementation.	2017-2019	Nevada Center for Advanced Mobility/GOED/Kris Sanchez NV2X/Kandee Worley	In Progress
		12.2	Understand and develop strategies to respond to drone or unmanned aerial vehicle technology as a potential supportive freight-delivery technique.	2017-2019	Nevada Institute for Autonomous Systems/GOED/Kris Sanchez	Planned
14	Enforce regulatory compliance through aggressive inspections, use advanced inspection technologies to reduce costs and improve efficiencies for law enforcement and operators alike, and develop reasonable standards for over-dimensional vehicles to operate with fewer impediments on the freight network.	14.1	Identify locations for permanent truck inspection equipment, stations, and data system. Develop a scalable implementation plan with potential phased improvements (e.g., truck weigh stations, pre-screening lanes). Determine a method to sustainably fund improvements and operations, including full- time staffing and determine a fee schedule and appropriate use of fines (e.g., use truck fines to fund the inspection program). Change the Nevada Revised Statutes to allow permit fees to be charged in excess of administrative needs. The additional fees could be used for inspections or pavement preservation. Explore use of a consolidated online website or application to issue and store state-required permitting and credentials, allowing streamlined access for freight carriers and law enforcement compliance officers alike.	2017-2019	NDOT/Ben Craig NHP Northern Command/Don Plowman NHP Southern Command/ John Arias	In Progress
16	Update the NSFP at regular intervals to insure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.	16.1	Integrate recommendations from the NSFP into NDOT’s performance-based Long Range Transportation Plan (LRTP).	2017-2019	NDOT/Kevin Verre	In Progress
		16.5	Hire or allocate support staff to the NDOT Freight Program to implement these strategies.	2017-2019/ongoing	NDOT/Bill Thompson	Planned
18	Pursue an “all of the above” strategy to achieve sustainable transportation funding to operate, maintain, and expand Nevada’s freight transportation system.	18.1	Stay abreast of legislative changes that may result in grant opportunities.	2017-2019/ongoing	NDOT/Kevin Verre	Ongoing
		18.2	Strategize project opportunities for this five-year round of NSFHP grants; prepare necessary planning and environmental studies to meet grant requirements.	2017-2019	NDOT/Kevin Verre	Ongoing
		18.3	Maintain coordination with FAC and WSFC to collaborate on potential funding opportunities that are conducive to multi-state projects or partnerships.	2017-2019/ongoing	NDOT/Bill Thompson	Ongoing
		18.4	Communicate to the public and stakeholders the status quo outlook for the condition and performance of the State Highway System, and the need for additional and more sustainable transportation funding measures.	2017-2019/ongoing	NDOT/Kevin Verre FAC	Planned

Governor's Office of Economic Development UPDATE – Kristopher Sanchez

- Current Activities and Initiatives





Mid-Term Actions



2019 Freight Program
Implementation Project



Table 1-4. Freight Strategies and Implementation Actions - MID-TERM ACTIONS

Strategy		Actions	Timeframe to Initiate Action	Lead Agency/ Contact	Status
1	Advance multi-use corridor planning for I-11.	1.3 Update the Nevada Rail Plan with an analysis of the feasibility of completing a freight rail connection between Las Vegas and Reno-Sparks-Carson City.	2020-2022	NDOT/Lee Bonner	Planned
3	Deploy technologies that improve the fuel- efficiency of commercial vehicles, and provide better mode-choice and integration to encourage the most sustainable freight transportation options.	3.1 Encourage use of cleaner vehicle technologies to reduce freight vehicular emissions.	2020-2022	Nevada Trucking Association/Paul Enos	Planned
		3.3 Build a compelling public benefits analysis and demonstration of potential market feasibility for new intermodal and/or bulk transload rail services from/to the State.	2020-2022	GOED/Kristopher Sanchez (Deputy Director) NNDa Northern Nevada Development Authority , Rob Hooper	Planned
		3.4 Pursue electrification at truck stops to reduce vehicle emissions from idling	2020-2022	FAC Nevada Trucking Association/Paul Enos Private Truck Stops NV2X/Kandee Worley	Planned
		3.5 Establish incentives to encourage the trucking industry to invest in next generation truck technologies.	2020-2022	Nevada Trucking Association/Paul Enos	Planned
6	Strengthen NDOT's Rail Safety and Security Program	6.1 Secure additional funding for NDOT's Rail Safety and Security Program. Additional funding from private stakeholders, discretionary grants, or other Federal, state, or local sources could help to fund more significant changes, such as closures or physical grade separations.	2020-2022	NDOT/Doug Fromm	Planned
13	Increase the number of truck parking spaces and facilities, along with supportive ITS improvements.	13.1 Create a Nevada Truck Rest Stop Implementation Plan. Phase I is largely completed as part of the NSFP, and Phase II would consist of continued data collection and analysis, including surveys and interviews that will result in identification of issues as well as recommendations for additional truck parking areas.	2020-2022	NDOT/Bill Thompson	Completed
		13.2 Implement investments in partnership with private and public stakeholders on truck parking ITS and expanding rest areas along interstate and interregional highways. Explore multistate partnerships.	2020-2022	NDOT/Bill Thompson	Planned

Strategy		Actions	Timeframe to Initiate Action	Lead Agency/ Contact	Status
14	Enforce regulatory compliance through aggressive inspections, use advanced inspection technologies to reduce costs and improve efficiencies for law enforcement and operators alike, and develop reasonable standards for over-dimensional vehicles to operate with fewer impediments on the freight network.	14.3 Develop design standards to require an 18-foot-0-inch bridge clearance for all new construction be considered, and implemented when feasible.	2020-2022	NDOT	Planned
		15.1 Research and document risks, mitigation measures, and emergency plans in a Comprehensive Disaster Risk Assessment.	2020-2022	NDOT/Bill Thompson	Planned
15	Develop response plans and mitigation strategies for potential threats to Nevada's freight transportation system.	15.2 Conduct a Hazardous Commodity Flow Study to document by what route and mode all hazardous materials are transported throughout Nevada.	2020-2022	NDOT/Bill Thompson	In Progress
		16.2 Integrate freight performance measures into NDOT's annual Performance Management process, allowing the monitoring of performance and progress of freight improvements. Based on the resultant analysis, maintain a list of high priority freight performance	2020-2022	NDOT/Bill Thompson	In Progress
16	Update the NSFP at regular intervals to insure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.	16.3 Conduct periodic updates to Nevada's defined National Highway Freight Network.	2020-2022	NDOT/Bill Thompson	In Progress
		17.1 Incorporate the fiscally constrained freight investment plan into the long-range transportation plan, and update as needed.	2020-2022	NDOT/Bill Thompson	Completed/Ongoing
17	Implement projects defined in the NSFP prioritized list of improvements.	17.2 Periodically identify and prioritize additional freight-related capital improvement projects, and update the prioritized list of projects and fiscally constrained freight investment plan	2020-2022	NDOT/Kevin Verre	Completed/Ongoing
		18.5 Prepare a "business case" document that assesses quantitatively and/or qualitatively the economic and non-economic benefits of full implementation of the state's long-range transportation plan to the significant beneficiary groups.	2020-2022	GOED, Kristopher Sanchez (Deputy Director)	Planned

NSFP ACTION 1.3 UPDATE - Lee Bonner

- **Action:** Update the Nevada Rail Plan.
- **Timeline:** 2020-2022
- **Lead Agency:** NDOT





Connect Rail

NEVADA

Strategic Update



Objectives of Connect Rail Nevada

- Optimize the integration of rail/truck transportation
- Apply whole supply-chain systems approach
- Support economic development with rail strategy
- Lead smart freight rail land use protocols
- Evaluate private-sector funding opportunities

What is the status of freight rail service in Nevada?

Rail infrastructure and service should keep up with growth.

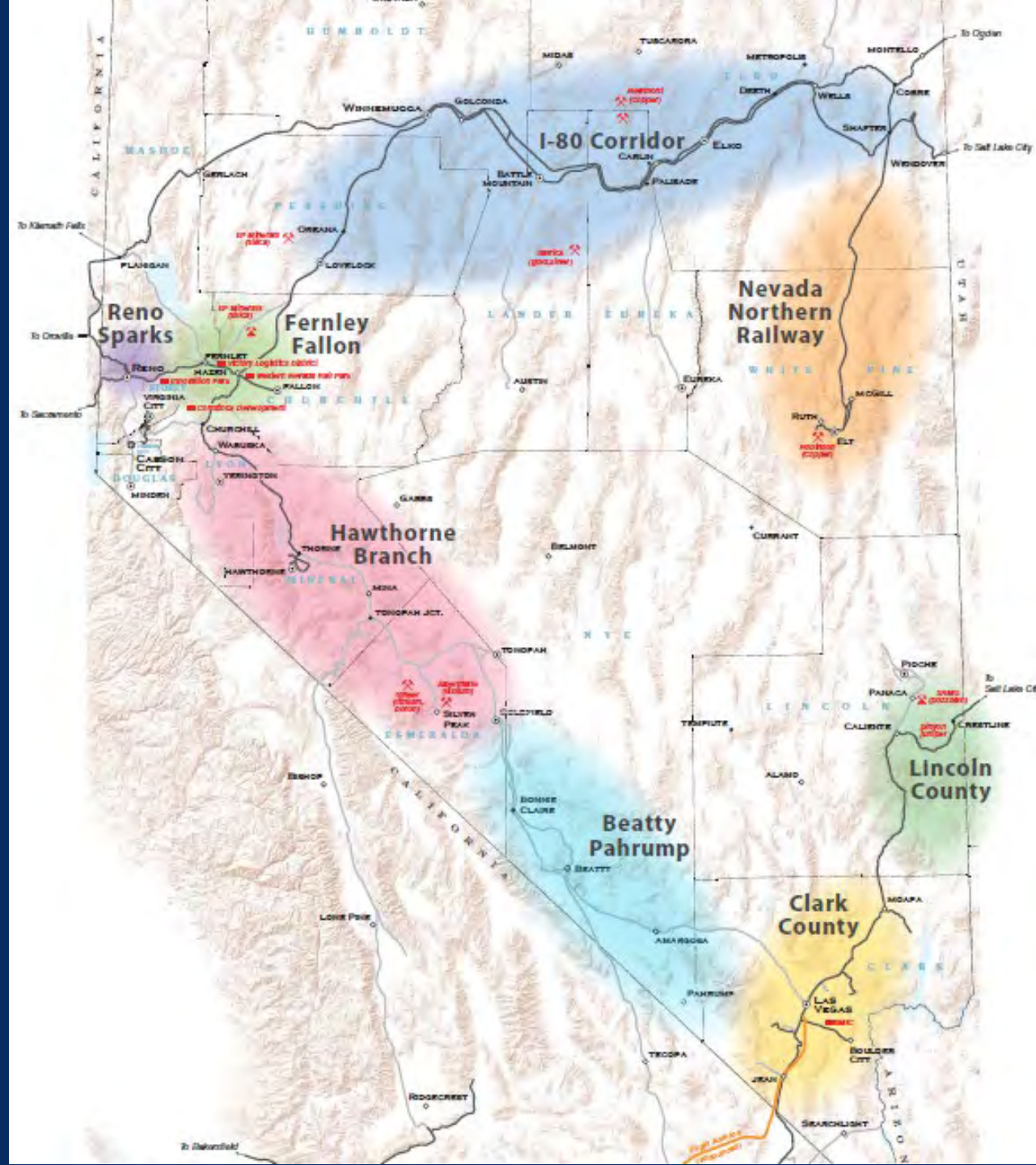
- Nevada rail service - 83% thru traffic
- 4% of the freight in Nevada is rail traffic to or from instate businesses.
- 77% of all Nevada freight tonnage is carried by trucks.
- 70% of the truck traffic is coming from or going to California.

Implementation

Regional Strategy

Distinguish the regions in the state on which to focus rail development efforts

- Southern Nevada - Region 1
- Lincoln County - Region 2
- Nevada Northern Railway - Region 3
- I80 Corridor - Region 4
- Fernley Region - Region 5
- Reno-Sparks-Stead - Region 6
- Hazen-to-Hawthorne Corridor - Region 7
- Beatty to Jean Corridor – Region 8



Implementation

Rail Action Plan for each area

A. Identify current rail assets

B. Identify the Opportunities



Implementation

Tools Strategy

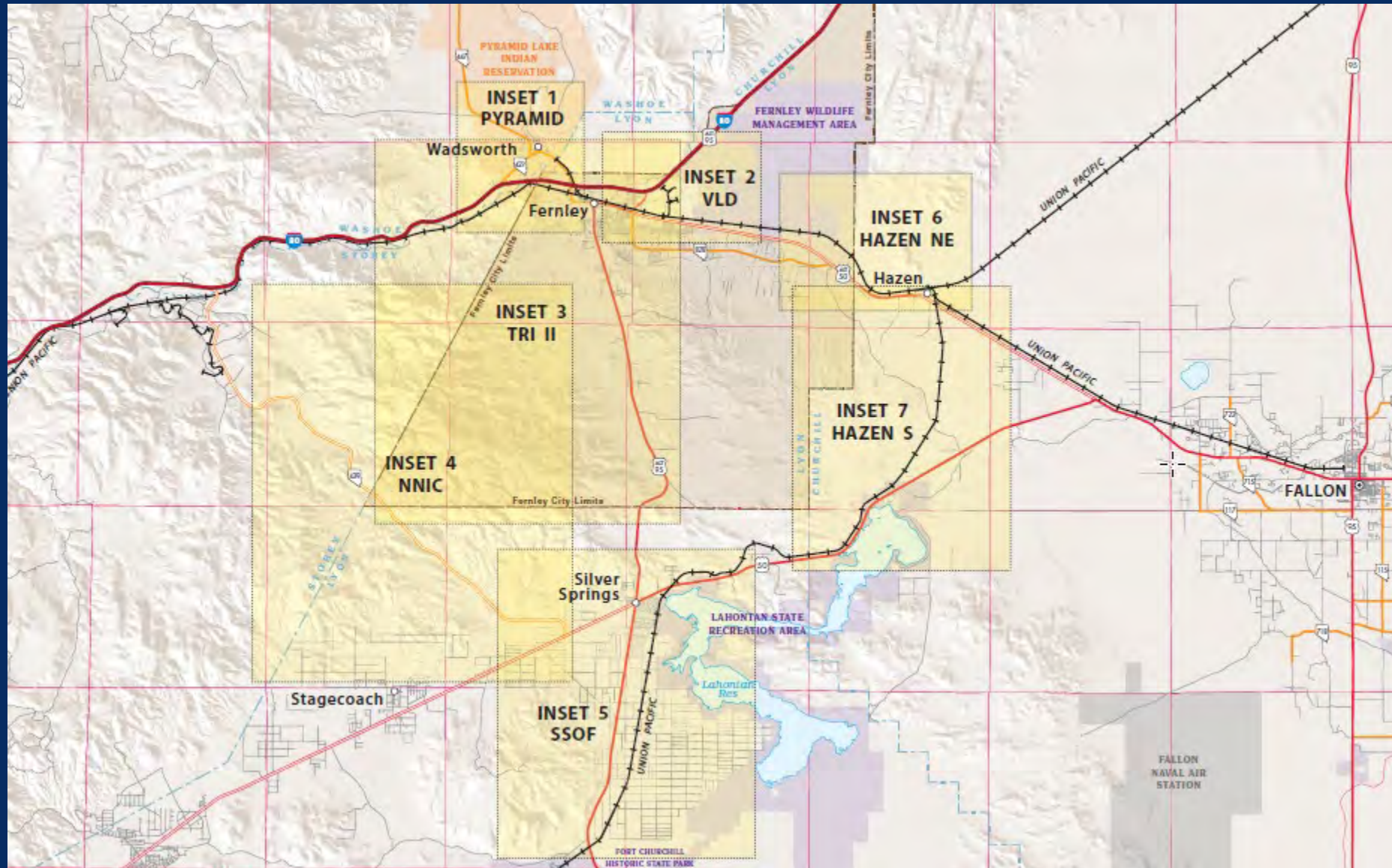
Provide stakeholders with actionable information and tools for enhancing their own and their collective projects

- Stakeholder lists
- Nevada's freight shippers and receivers
 - *Truckload shipper lists*
 - *Rail shipper lists*
- Nevada industrial developers
- Nevada municipalities / Economic development agencies
- Nevada's industrial associations
- Rail asset and property index
- Rail project lists
- Freight data

15-layer state and regional map

- Main rail lines and branch lines with roads
- Yard and interchange tracks
- Team and house tracks (potential transloading sites)
- Existing sidetracks to active customers
- Existing sidetracks to inactive customers
- Existing potential rail customers without sidetracks
- Selected land segments that can feasibly be reached by rail and commercially relevant
- Opportunity Zones
- Land use zoning—county by county
- Regional maps
- Stakeholders
- Truckload shipper locations, businesses
- Potential freight rail projects
- Freight data
- Passenger rail assets, existing stations and lines that are potential for passenger service

Implementation



Reno Stead



Reno Parr



Implementation

Supply Chain System Strategy

Expand investment strategies to statewide and regional supply chain level for:

- Mining materials
- Food and beverage
- Building materials
- Construction aggregates
- Chemicals
- Containers
- Agriculture
- Waste & scrap
- Manufacturing
- Energy

Implementation

Mining Materials Supply Chain Logistics Strategy

Comprehensive mining supply chain mapping and infrastructure development plan

- Map the mining industry and supply chain
- Map storage and distribution facilities
- Include mines in development
- Propose optimal mining supply chain system



Implementation

California-Nevada Supply Chain Alliance

Create a two-state alliance for supply chain coordination and optimization

- Nevada's recent economic development is spurred by its adjacency to California
- Truck traffic is increasing in both states as California's supply chain has expanded into Nevada for warehousing, distribution, and production
- 70% of all trucks in Nevada are coming from or going to California
- There is a significant upside to the economy, environment, and quality of life from the revitalization of rail service for this critical two-state supply chain system

Implementation

Private-sector Funding Strategy

Launch new model for statewide private-sector funding of rail development

- Attract private-sector capital sources for rail development
- Identify federal funding programs applicable to rail projects and establish partnerships with in-state and DC program managers
 - US Department of Transportation
 - US Department of Agriculture
 - US Department of Commerce
 - US Small Business Administration

Implementation

Union Pacific and BNSF Partnership Strategy

Co-develop corridor and regional rail service plans that integrate with UP and BNSF operations

- Create a rail growth initiative for the entire state
- Short-term (18-month) and longer term (2-12 year) horizons
- Rail education for town, county, and economic and land development leaders
- Connect prospects to rail service, rail properties, federal, state, and local support
- Develop partnership with UP and BNSF

For more information please contact:

Lee Bonner

State Railroad Coordinator

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Long-Term Actions



2019 Freight Program
Implementation Project





UPDATED Nevada State Freight Plan

Table 1-4. Freight Strategies and Implementation Actions - LONG-TERM ACTIONS

Strategy		Actions		Timeframe to Initiate Action	Lead Agency/ Contact	Status
14	Enforce regulatory compliance through aggressive inspections, use advanced inspection technologies to reduce costs and improve efficiencies for law enforcement and operators alike, and develop reasonable standards for over-dimensional vehicles to operate with fewer impediments on the freight	14.2	Construct the inspection stations at key locations, including integration of advanced technologies to gather information – reducing layover time for truckers and limiting the number of on-hand staff required (e.g. Drivewyze or PrePass, which use electronic transponders to quickly access vehicle information and ensure compliance with state requirements).	2023-2027	NDOT/Bill Thompson NHP Northern Command/Don Plowman NHP Southern Command/ John Arias	Planned
16	Update the NSFP at regular intervals to insure relevance of goals, objectives, and performance measures, and maintain a prioritized list of projects and programs.	16.4	Conduct a wholesale update to the NSFP every five years.	2023-2027	NDOT/Bill Thompson	Planned



NATIONAL ECONOMIC PARTNERSHIP GRANT I-15 FREIGHT MOBILITY ENHANCEMENT PLAN UPDATE

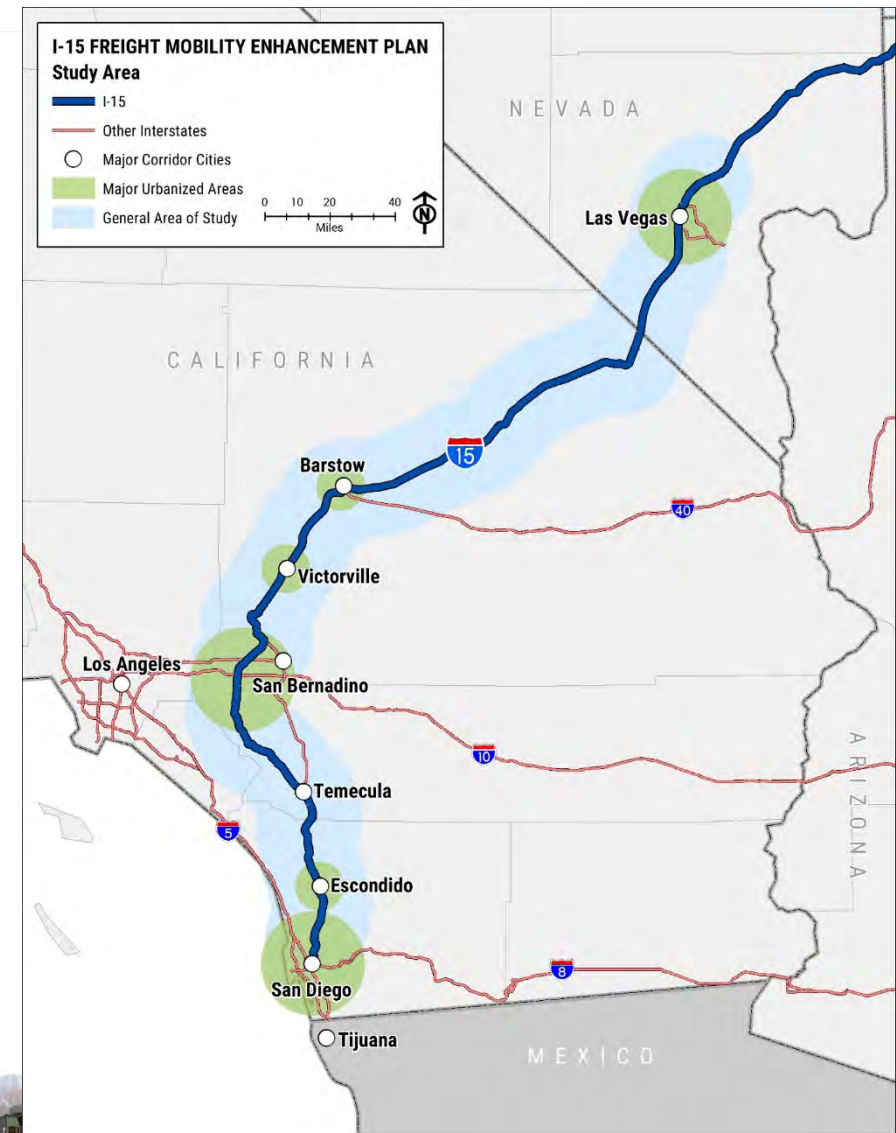
Presented by: Vern Keeslar, Parametrix



Parametrix

I-15 Freight MEP Plan Goals

- ❖ Identify strategies, best practices and templates for providing effective urban truck parking along I-15
- ❖ Establish new partnerships and a successful multi-state coalition
- ❖ Advance important near-term corridor improvement opportunities
- ❖ Advance key freight planning efforts in both California and Nevada for I-15
- ❖ Better coordinate local and megaregional corridor planning efforts
- ❖ Elevate engagement with local and regional planning agencies who have a vital role in mobility and safety planning and programming for I-15



Project Timeline



- ❖ Conducted research on potential freight technologies and applications to support urban truck parking solutions and prepared Technology Exploration White Paper - (April 29)
- ❖ Conducted mid-project check-in meeting with FHWA Headquarters on status of project since its inception (March 17)
- ❖ Conducted 2nd stakeholder webinar on Technology options (May 6)
- ❖ Received and evaluated responses to RFI from technology vendors, conducted one-on-one interviews with vendors (as necessary)
- ❖ Submitted Urban Truck Parking Technology Exploration to FHWA and Partner Agencies (May 28).



Next Steps

Task 6: Strategy Development and Implementation Framework

- Investigating actionable set of truck parking strategies for the I-15 corridors.
- Researched best practices for truck parking strategic implementation/guidance.
- Researched available federal discretionary grant funding for freight/truck parking.



Next Steps (cont.)

Task 7: I-15 Freight Mobility Enhancement Plan

- Initiated preliminary discussion/ideas regarding ultimate deliverable, including organization and various communication platforms for sharing the plans' recommendations.

3-month looking ahead:

- Final Implementation Framework
- Final I-15 Freight MEP
- FHWA Final Report
- Share Resources / Lessons Learned

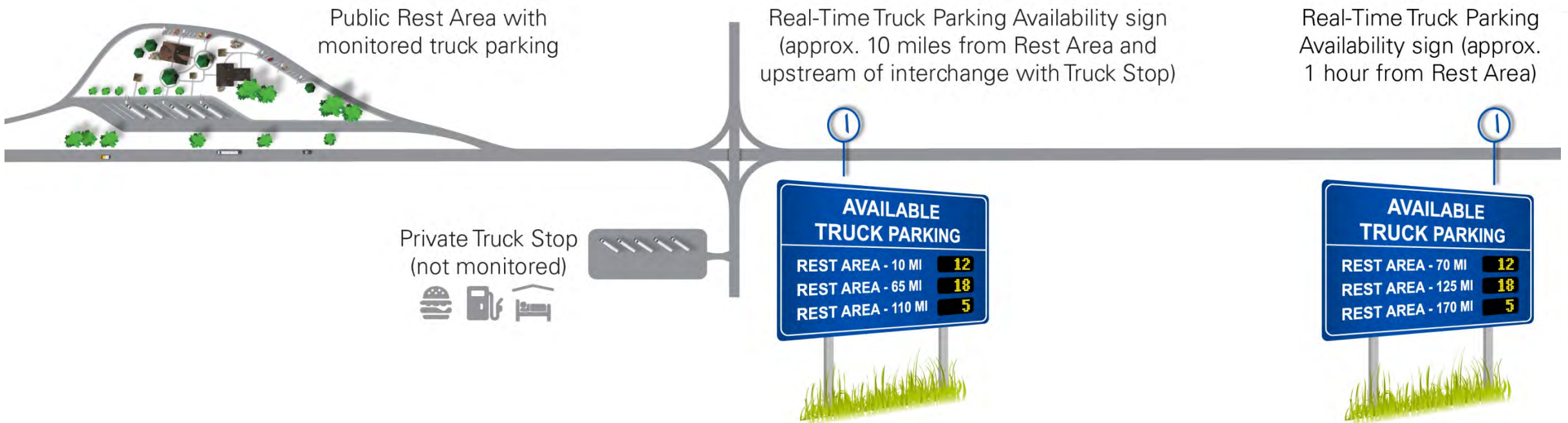


TRUCK PARKING AVAILABILITY SYSTEM (TPAS) PROJECT UPDATE

Presented by: Bill Thompson, NDOT



Data Distribution Strategy



- Data published in real-time on Nevada Data Exchange
 - Published on NVRoads Website and App
 - Available to 3rd party app developers



QUESTIONS OPEN DISCUSSION



2019 Freight Program Implementation Project

THANK YOU

Next FAC Meeting: November 3, 2020



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NDOT Freight Program Manager



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<https://www.nevadadot.com/mobility/freight-planning>

