



2021 Nevada State Rail Plan

Recommendations
Strategies

Rail Plan Recommendations

State Agency Actions

Agency Responsibilities

NDOT NDOT is responsible for state rail and freight planning but is prohibited from spending state dollars on advancing rail infrastructure. The local governments are allowed by state law to invest in rail for their community. The role NDOT will play in rail development will be in the permitting of these projects as they impact our state roads and highways. NDOT asks to be included in the planning phases to be able to address issues pertaining to traffic modeling and planning.

GOED Most of the rail development will fall under the GOED and RDA realm as well as continuing the effort of leveraging rail to advance industrial development around the state. This fits in the state recovery plan efforts and will help to guide a path of an efficient freight transportation system.

RDAs The RDAs around the state are boots on the ground for GOED and the front lines for businesses moving into the state. Through the process of the state rail plan we have shared visions and strategies for how local areas can advance rail. Many of these local strategies could be addressed by the RDAs.

DCNR The state has a goal of 25% municipal recycling each year and the state has not been able to meet that goal. There is also a strategy in the rail plan to address the mining supply chain that could impact the environment. Over the next year we will look at ways to move the needle on this goal.

State Lands Land use issues are local, and the State Lands division will leverage SLUPAC pertaining to land use decisions that local governments can make to preserve rail served land

Recommendation Checklist Part 1

	Recommendation	Priority High Med Low	Agency
1	Expand Nevada freight rail service to and from California and points east	High	NDOT/GOED
2	Initiate and expand new intermodal services	High	NDOT/GOED
3	Facilitate shippers' early-stage use of the rail network	Med	RDA
4	Preserve and utilize existing rail assets, including branch lines / industrial lead tracks	Med	RDA
5	Develop rail operating plans that serve local Nevada	Med	RDA
6	Utilize existing rail infrastructure	High/Med	RDA
7	Aggregate shippers' needs into corridor plans through the state freight plan	High/Med	GOED/RDA
8	Co-locate new rail shippers in industrial parks when sensible	Med	RDA
9	Provide rail-informed expertise to shippers and land developers	Med	RDA

Recommendation Checklist Part 2

	Recommendation	Priority High Med Low	Agency
10	Balance long-term project planning with near-term improvements for existing shippers	High	GOED/RDA
11	Evaluate freight movement data for meaningful commercial opportunities	High	RDA
12	Facilitate collaborative dialogue among suppliers, customers, transportation providers, developers, and citizens	High	RDA
13	Initiate rail-served supply chain planning and add to the state freight plan	High	NDOT Freight /GOED/RDA
14	Enact freight transportation land use strategies	Med	State Lands
15	Establish Partnership with UPRR and BNSF	High	NDOT/GOED
16	Support BNSF expansion in Nevada	High	RDA
17	Fundamental Performance Measures for Improving Nevada's Rail System	Low	NDOT/GOED

Emissions

Environmental Benefits of Truck to Rail Conversions on Three Primary Freight Flows

Fernley to Oakland: Conversion of through farm and food products traffic

Over 50% of freight flowing through Nevada towards the Oakland port and region are farm and food products accounting for 385,000 annual truck movements. Development of rail infrastructure including an intermodal facility at Fernley would convert a proportion of this eastbound and westbound freight flow. This conversion would eliminate truck-trip mileage of ~246 miles for each converted trip.

Fernley to Sacramento: Conversion of local freight traffic

Annually, 510,000 truck journeys transport Clay, Concrete, Glass, Stone and non-metallic minerals from the Fernley region to Sacramento and surrounding area. This generates a further 510,000 empty return journeys making a total of 1.1MM truck movements. Development of rail infrastructure including an intermodal facility at Fernley would convert a proportion of this eastbound and westbound freight flow. This conversion would eliminate truck-trip mileage of ~165 miles for each converted trip.

Fernley to Oakland Diversion: Diversion and conversion of Los Angeles through freight traffic

Over 35% of through-state freight flows destined for the Los Angeles ports and region are farm and food products accounting for 395,000 annual truck movements, development of rail infrastructure including an intermodal facility at Fernley would divert a proportion of this eastbound and westbound freight flow to Fernley for conversion to rail. The impact would be to divert truck traffic away from the I15 corridor towards the I80 corridor with conversion to rail at Fernley. This diversion and conversion would eliminate truck-trip mileage of ~202 miles for each trip.

Environmental Benefits of Truck to Rail Conversions on Three Primary Freight Flows

	Freight Flow	% Conversion (truck to rail)	Reduced Annual Truck Trips	Reduced Annual Truck Mileage	Reduced CO ₂ GHG (Gram)	Additional Rail CO ₂ GHG (Gram)	NET CO ₂ Saving (Gram)
Oakland Conversion	Fernley to Oakland Conversion	5%	19,250	4,735,500	8,097,705,000	1,160,197,500	6,937,507,500
	Fernley to Oakland Conversion	15%	57,750	14,206,500	24,293,115,000	3,480,592,500	20,812,522,500
	Fernley to Oakland Conversion	25%	96,250	23,677,500	40,488,525,000	5,800,987,500	34,687,537,500
Sacramento Conversion	Fernley to Sacramento Conversion	5%	55,000	9,075,000	15,518,250,000	2,223,375,000	13,294,875,000
	Fernley to Sacramento Conversion	15%	165,000	27,225,000	46,554,750,000	6,670,125,000	39,884,625,000
	Fernley to Sacramento Conversion	25%	275,000	45,375,000	77,591,250,000	11,116,875,000	66,474,375,000
Oakland Diversion	Fernley to Oakland Diversion	5%	19,750	3,989,500	6,822,045,000	977,427,500	5,844,617,500
	Fernley to Oakland Diversion	15%	59,250	11,968,500	20,466,135,000	2,932,282,500	17,533,852,500
	Fernley to Oakland Diversion	25%	98,750	19,947,500	34,110,225,000	4,887,137,500	29,223,087,500
TOTAL All 3 Flows		5%	94,000	17,800,000	30,438,000,000	4,361,000,000	26,077,000,000
TOTAL All 3 Flows		15%	282,000	53,400,000	91,314,000,000	13,083,000,000	78,231,000,000
TOTAL All 3 Flows		25%	470,000	89,000,000	152,190,000,000	21,805,000,000	130,385,000,000

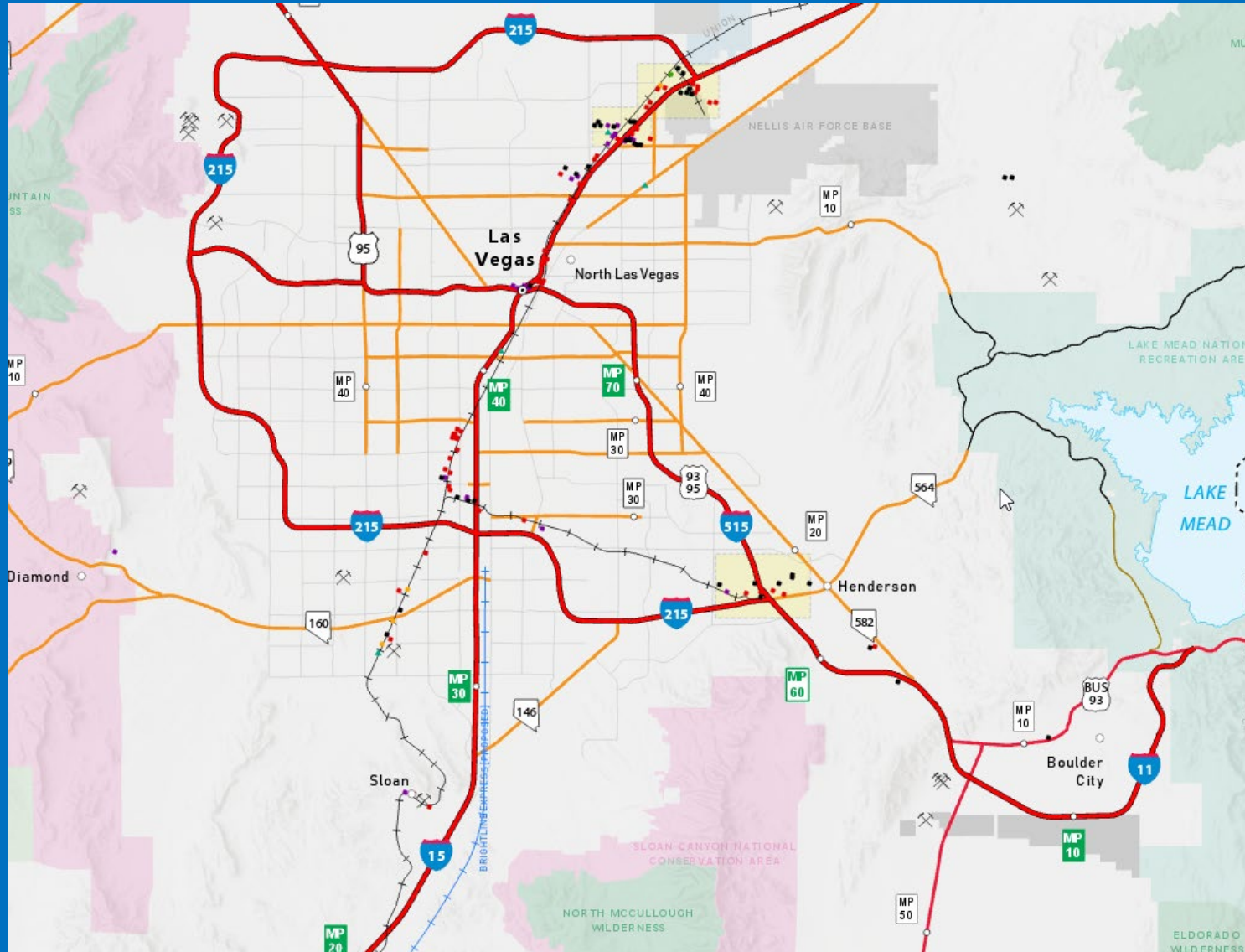
These GHG reductions resulting from the conversion of tons of freight transported through Nevada will make a significant contribution to the Governors Executive Order 2019-22 (November 2019) and Nevada Senate Bill 254 to achieve greenhouse gas emission reductions in the areas of transportation amongst other sectors.

Environmental Benefits of truck to rail conversions – Data Sources

- 91 Federal Transit Administration, U. (2010, January). Public Transportation's Role in Responding to Climate Change. Retrieved from <https://www.transit.dot.gov/sites/fta.dot.gov/files/docs/PublicTransportationsRoleInRespondingToClimateChange2010.pdf>
- 92 E. (2019, October). 2019 SmartWay Shipper Company Partner Tool: Technical Documentation. Retrieved from <https://www.epa.gov/sites/production/files/2019-10/documents/420b19052.pdf>
- 93 Based on average CO₂/mile across five truck categories of 1710g against average CO₂/mile per rail car of 980g converted to truck equivalent unit at 25% to give 245g. Ratio of 1710:245 equates to 8 fold differential. Source <https://www.epa.gov/sites/production/files/2019-10/documents/420b19052.pdf>
- 94 Austin, D. (2015, March). Pricing Freight Transport to Account for External Costs. Retrieved from https://www.cbo.gov/sites/default/files/114th-congress-2015-2016/workingpaper/50049-Freight_Transport_Working_Paper-2.pdf

Regional Strategies

Region 1 – Clark County



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Las Vegas Global Economic Alliance – Rail Stakeholder Perry Ursum

Jean, NV

Develop rail-served industry southwest of the Las Vegas-Henderson metro area to increase economic development with less traffic impact on downtown Las Vegas

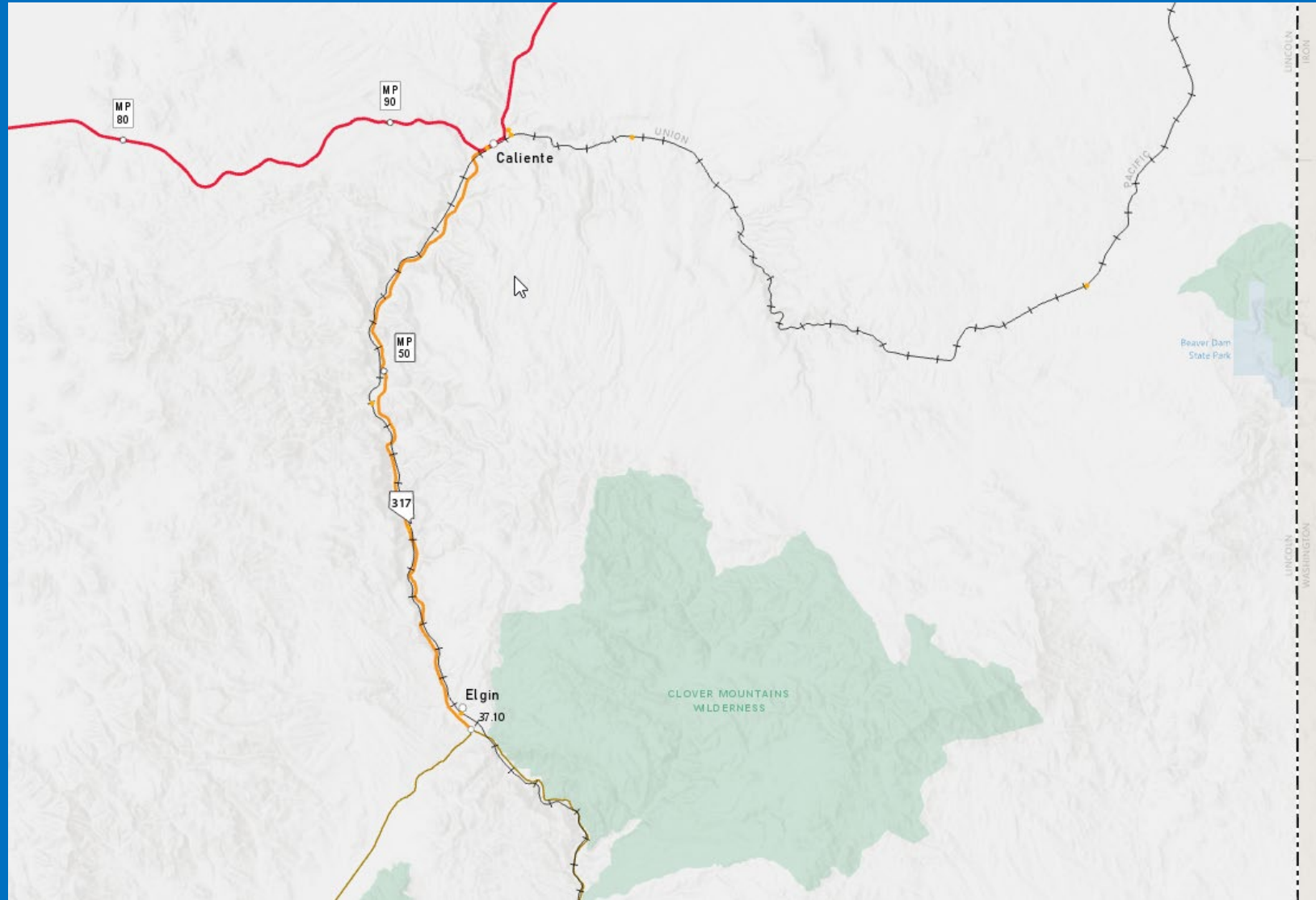
Land Use

Preserve as much as practical of remaining developable commercial land for rail-served industry

Business Continuity

- Connect as many of the existing shippers to rail as possible
- Support developers and shippers in North Las Vegas with their rail planning efforts
- Redevelop Black Mountain Industrial Center for rail served heavy industry
- Establish two-way intermodal service to San Pedro Bay, CA

Region 2 – Lincoln County



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Lincoln County Economic Development – Rail Stakeholder Jeff Fontaine

Current mining activity

Establish truck to rail transloading site for pozzolan and future commodities

Pinyon Juniper

Evaluate Crestline site for future rail-served industrial development

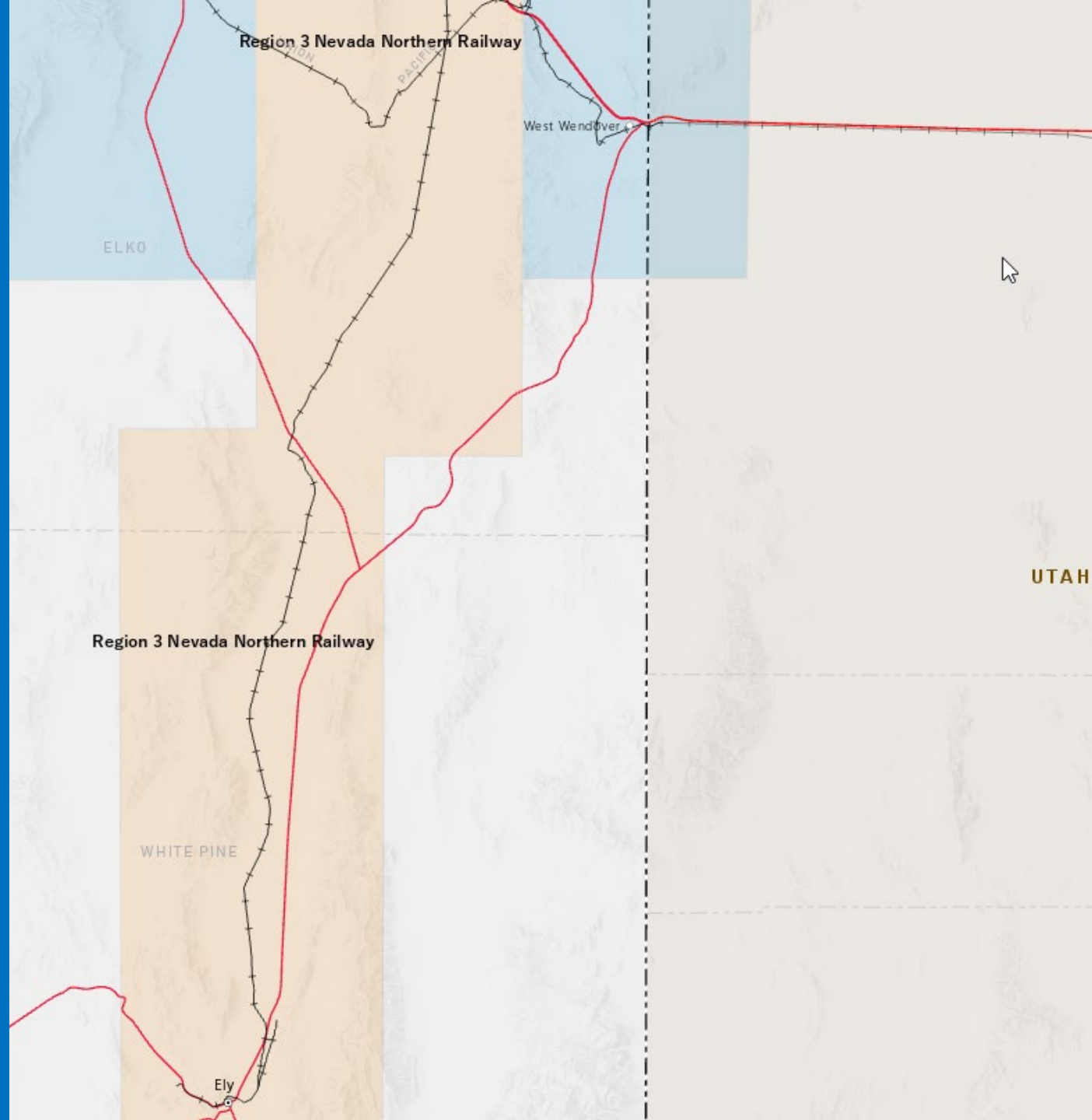
Caliente

Evaluate land south of Caliente town-center for future rail-served commercial development

Passenger

Excursion rail service from Caliente to Las Vegas

Region 3 - Nevada Northern

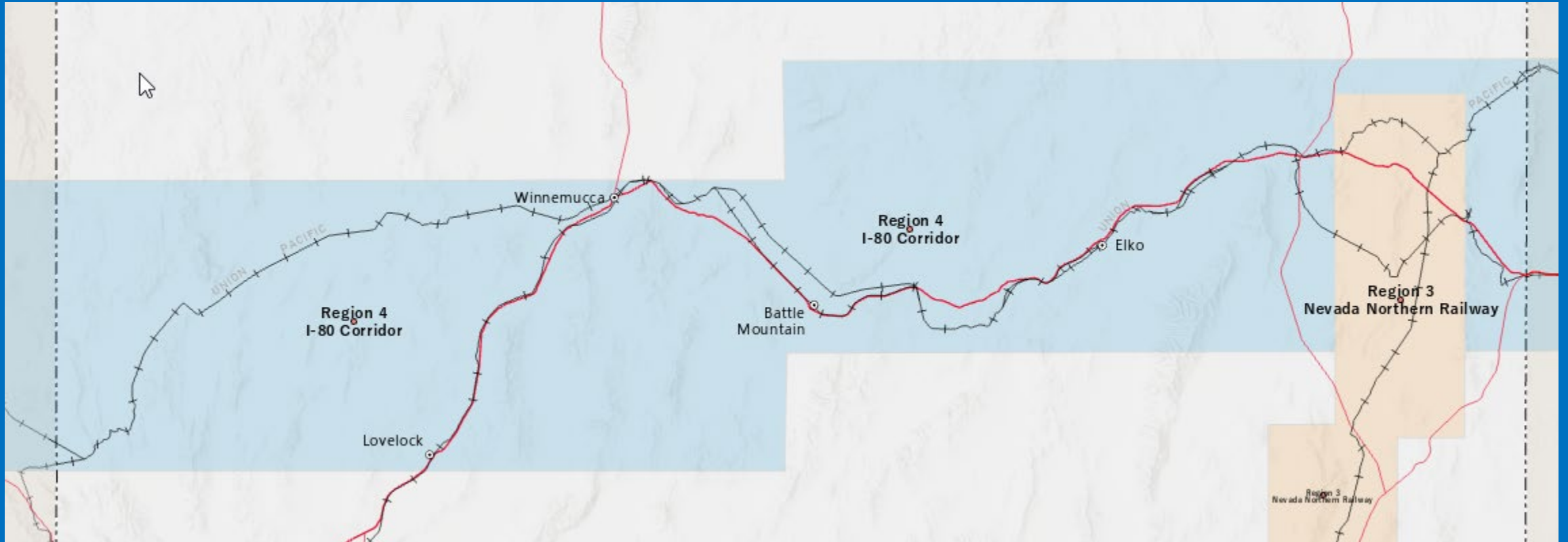


Region 3 – Nevada Northern

Northeastern Nevada Regional Development Authority – Rail Stakeholder Sheldon Mudd

- **Aggregate rail shippers**
Engage with potential rail shippers in the corridor to aggregate the prospects for rail utilization
- **Rebuild**
Evaluate approximate rebuilding and operating costs to establish preliminary viability
- **Business model**
Develop proforma business and financial model for the reconstruction and operation of NNRV

Region 4 – I 80 Corridor



Region 4 – I 80 Corridor – Mining Agriculture

Northeastern Nevada Regional Development Authority – Rail Stakeholders Sheldon Mudd

Initiate a rail-enabled, corridor-wide development strategy

1. Turning these two important rail line arteries toward serving the region, not just carrying freight through the region
2. Implement the NVSRP's comprehensive rail-centric supply chain strategy for the mining industry

Rail Plan - Chapter 2

Illuminate the Current Status of Rail

1. Existing rail activity
2. Existing rail track and facilities
3. Name and location of all rail shippers and receivers
4. Identification of all businesses that were shipping or receiving by rail and are not currently
5. Location and growth capacity of transloading operations
 1. Private facility only
 2. Public service available
6. UP and BN service characteristics-

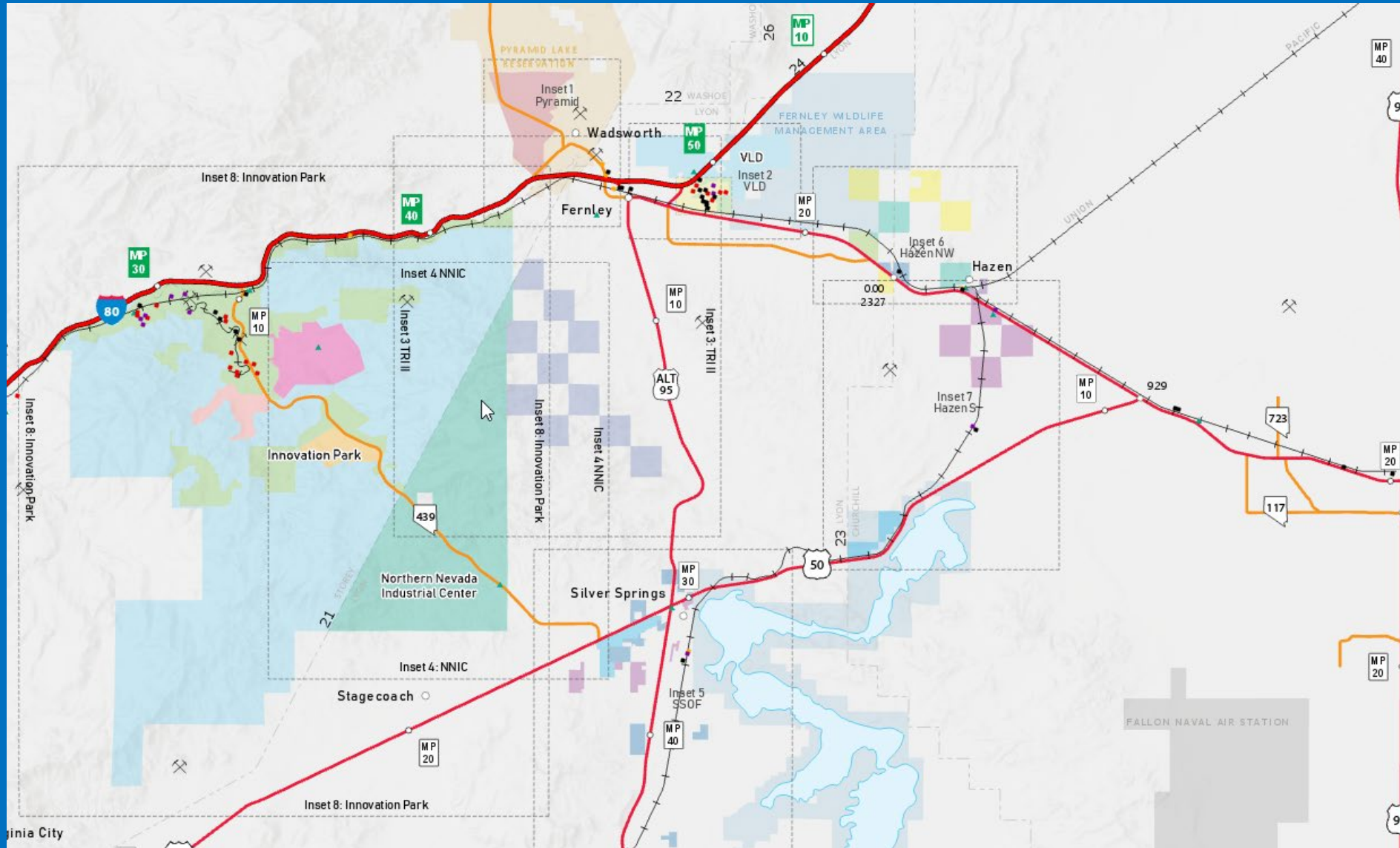
Rail Plan - Chapter 4

Identify the Opportunities

1. Pinpoint potential transloading sites-(Completed)
2. Identify shippers and receivers that should be contacted (Completed)
3. List land that has been identified and invested in by local government for rail-served industry
4. Identify land that is attractive for rail service that has not been invested in by local government
5. Assess what will be required to provide rail service at each of these properties
6. Identify each of the major rail infrastructure projects under consideration (Partially Completed)

Complete the Mining Materials Supply Chain Logistics Strategy

Region 5 – Fernley

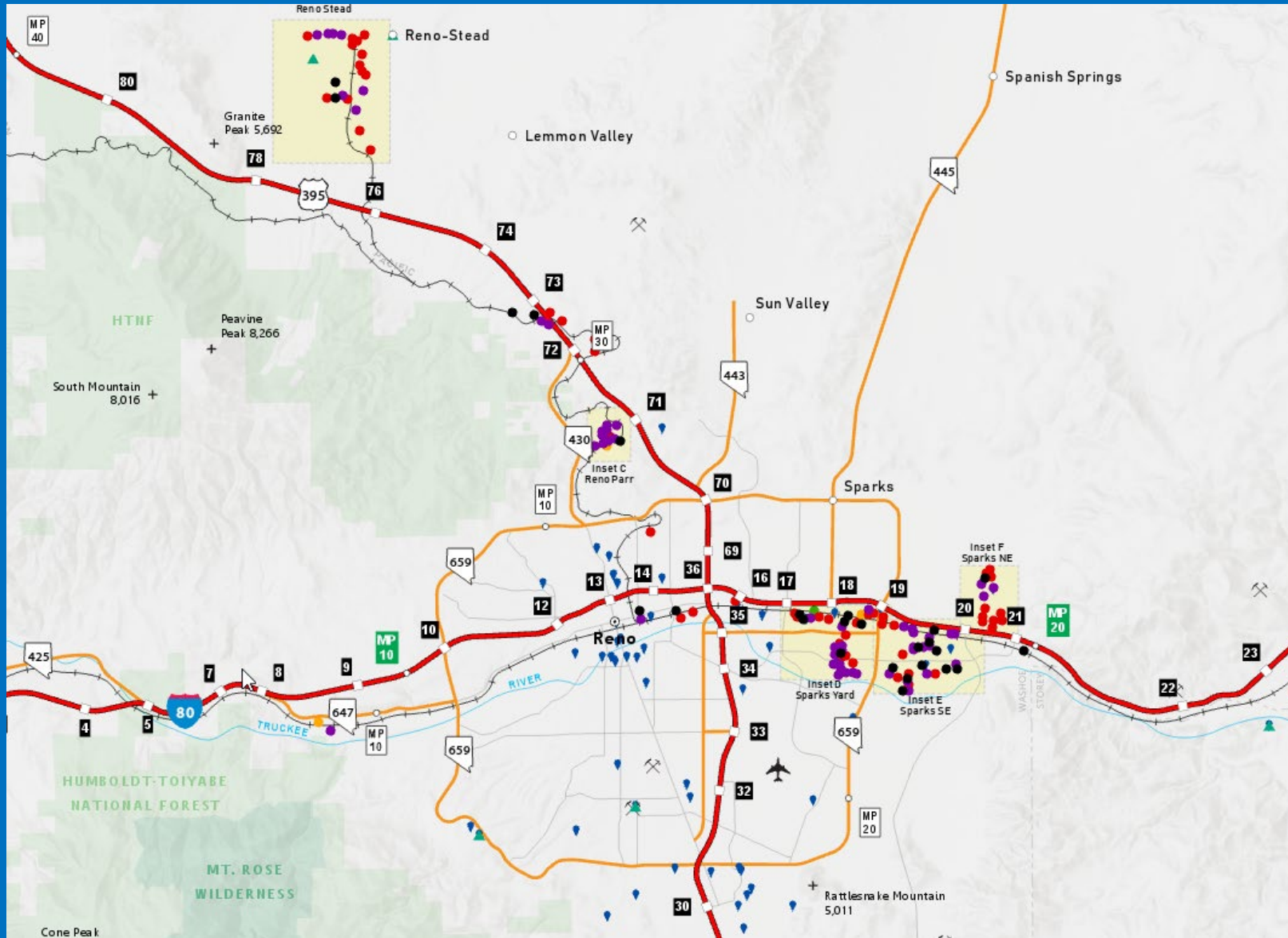


Region 5 – Fernley / Churchill

Northern Nevada Development Authority – Rail Stakeholder Rob Hooper
Churchill Fallon Economic Development – Rail Stakeholder Bruce Breslow

- The high number of land developments underway in Region 5 presents one of the state’s most urgent opportunities to improve economic well-being and environmental sustainability through the logistics efficiencies of rail.
- Support existing industrial parks and shippers in connecting to rail by attending to their specific logistics requirements and current rail infrastructure.
- Support new land developers in the Fernley/Hazen/Fallon/Silver Springs corridor in their efforts to develop rail service.
- Complete a detailed business case analysis of Fernley Multimodal Freight Facility.
- The study proposes an Integrated Multimodal Cargo Transfer Facility (IMCTF) model to maximize the benefits of freight rail utilization.

Region 6 – Reno Sparks

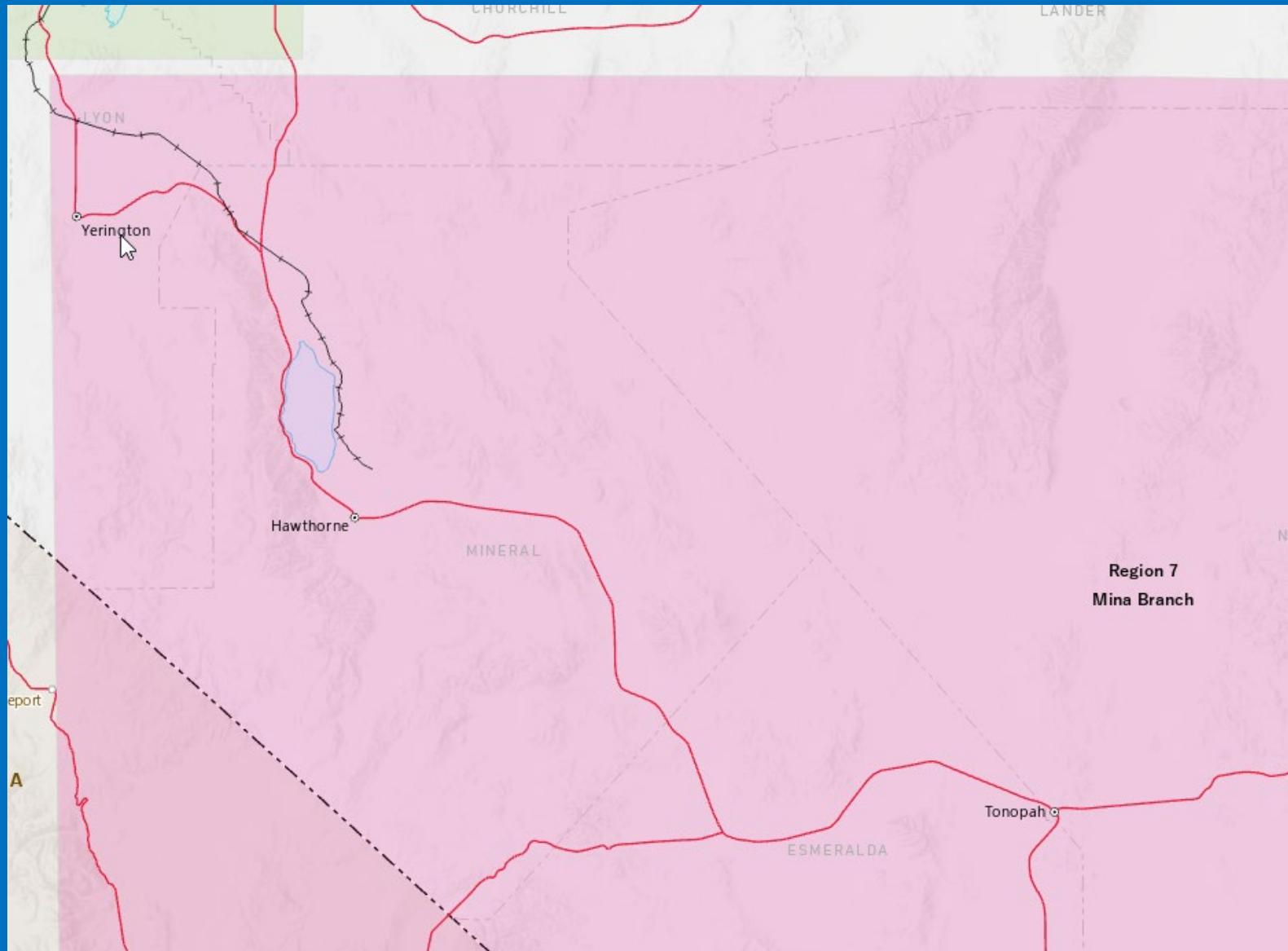


Region 6 – Reno Sparks

Economic Development Authority of Western Nevada – Rail Stakeholder Nancy McCormick

- Co-create with UP a local rail service development effort
- Co-create with UP and BNSF a collaborative service development plan where BNSF has existing rights
- Gather the rail service case and operating plan for intermodal service with the Port of Oakland
- Conduct supply chain logistics analysis on the regions production and transportation of aggregates, sand, and non-metallic minerals to California
- Establish high-volume interaction with customers
- Establish collaboration with real estate community on awareness and promotion of rail access in sales and leasing of commercial property
- Establish collaboration with economic developers on rail-centric business attraction strategies

Region 7 – Mina Line



Region 7 – Mina Line (extension to Tonopah)

Northern Nevada Development Authority – Rail Stakeholder Rob Hooper

Short Term

Yerington

Explore opportunities to serve copper mines, molybdenum mines, and cattle lots in the Yerington area with a short branch line diverging south from the Union Pacific at Wabuska

US Army Collaboration - Hawthorne

Collaborate with Union Pacific and the U.S. Army on an economical, near-term approach to constructing interchange trackage between UP and Top Rail at Fort Churchill. Publicize and facilitate car storage and rail/truck transloading at the Hawthorne Army Depot

Mina / Luning Extension

Promote collaboration among mining and energy operations by having the Mina Branch reconstructed back through Luning to Mina for rail/truck transloading

Blair and Coldale Junction Extension

Eventually continue the process of reconstructing an active rail line in steps to Blair Junction and Goldfield Junction, to include stubs directly into nearby mines

Goldfield Extension

The process of reconstructing a rail line south from Hawthorne to Luning to Mina to Blair Junction to Goldfield Junction can be continued south into Region 8 to Beatty and connections with UP and BNSF by continuing to promote collaboration among mining and energy companies to pool their efforts in the creation of economical direct rail service.

Nye County Inbound commodities

Transportation opportunities unique to southern Nye County should be explored, such as the inbound movement of dairy feed, fertilizer made from waste recycling in the Los Angeles area and general transloading near Pahrump to support a local surge in population.

Longer Term

Region 8 – Beatty / Jean

Region 8 – Beatty / Jean

Discussions on rail line from Jean to TRIC

- Freight
- Passenger

Development of a infrastructure corridor

- Propane
- Broadband
- High speed rail
- Energy transmission

Utilize the historical rail beds

- Tonopah Tidewater
- Tonopah Las Vegas



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