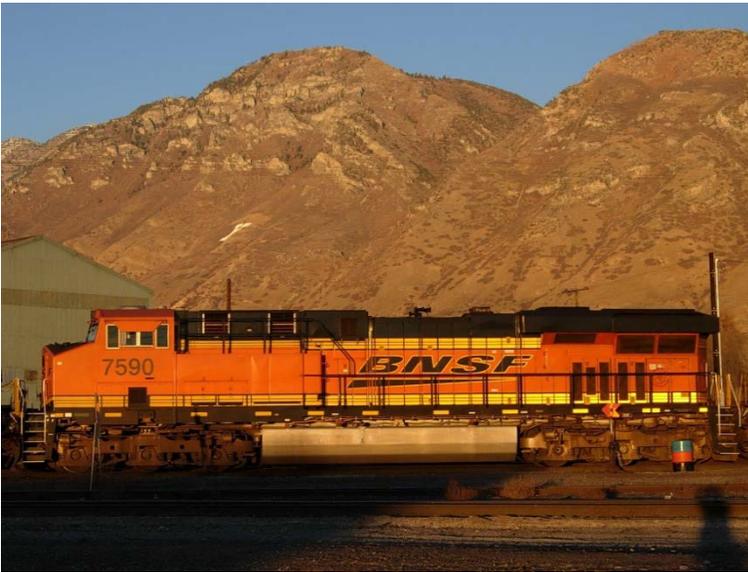
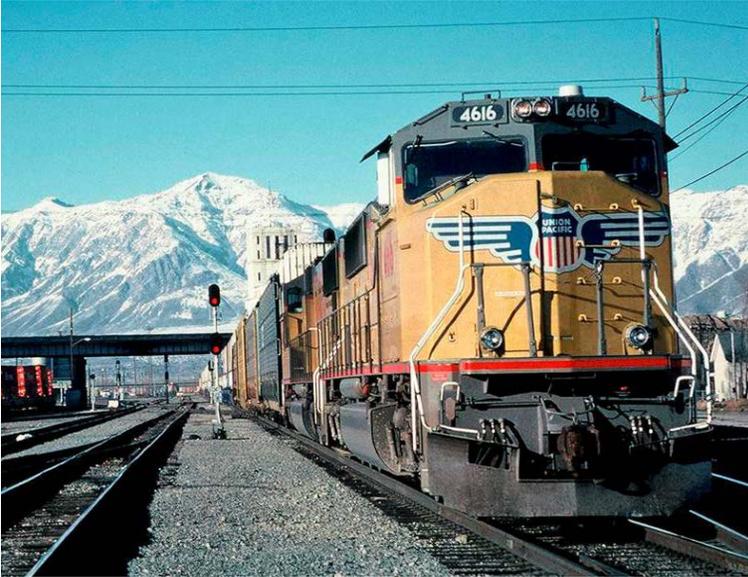


Utah State Rail Plan

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List of Abbreviations and Acronyms

AAR	Association of American Railroads
Amtrak	National Railroad Passenger Corporation
ATK	Amtrak
BNSF	BNSF Railway
bpd	barrels per day
C&NW	Chicago and Northwestern System
CDOT	Colorado Department of Transportation
CMLR	Comstock Mountain Lion Railroad
CP	Central Pacific Railroad
CSI	Customer Satisfaction Index
D&RGW	Denver and Rio Grande Railroad
DOE	Department of Energy
DOT	Department of Transportation
DPRW	Deseret Power Railroad
EIA	Energy Information Administration
EIS	Environmental Impact Statement
FAF	Freight Analysis Framework
FHWA	Federal Highway Administration
FRA	Federal Railroad Administration
GDP	Gross Domestic Product
IERP	Isolated Empire Rail Project
HPR	High-performance Rail
HSIP	Highway Safety Improvement Program
HVRX	Heber Valley Railroad
KCC	Kennecott Utah Copper Railroad
LA&SL	Los Angeles and Salt Lake Railroad
LNG	Liquefied Natural Gas
LOS	Level of Service
LRSIP	Long-Range Rail Service Plan
MAG	Mountainland Association of Governments
MPOs	Metropolitan Planning Organizations
NEPA	National Environmental Policy Act
OSL	Oregon Short Line
OTP	On-time Performance
PABs	Private Activity Bonds
PRIIA	Passenger Rail Investment and Improvement Act
P3s	Public-Private Partnerships
RSIA	Rail Safety Improvement Act

List of Abbreviations and Acronyms (continued)

SBG	Savage, Bingham and Garfield Railroad
SCAOG	Six County Association of Governments
SEA	Section of Environmental Analysis
SITLA	School and Institutional Trust Land Administration
SL	Salt Lake City Southern Railroad
SLCIT	Salt Lake City Intermodal Terminal
SLGW	Salt Lake, Garfield and Western Railway
SOP	Sulphate of Potash
SP	Southern Pacific Railroad
SPLA&SL	San Pedro, Los Angeles and Salt Lake Railroad
S.R.	State Route
STB	Surface Transportation Board
SW	Southwest Study
TTI	Texas Transportation Institute
U&N	Utah and North Railroad
UC	Utah Central Railroad
UCRY	Utah Central Railway
UFRC	Utah FrontRunner Commuter Rail
UDOT	Utah Department of Transportation
UMTRA	Uranium Mill Tailings Remedial Action
UN	Utah Northern Railroad
UP	Union Pacific Railroad
USRA	United States Railway Administration
USRP	Utah State Rail Plan
UTA	Utah Transit Authority
UTAH	Utah Railway
VMT	Vehicle Miles Traveled
WFRC	Wasatch Front Regional Council
WHSRA	Western High Speed Rail Alliance
WP	Western Pacific Railroad
WRA	Western Regional Alliance

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Executive Summary

Objective: A summary that highlights key facts and findings of the State rail plan, with an emphasis on the desired outcomes and program effects of the State's vision for rail and how that vision will be achieved through the projects, programs, and policies identified in the Rail Service and Investment Program.

Chapter 1 – The Role of Rail in Statewide Transportation

The railroad industry continues to play a vital role in the movement of freight to and through Utah. The Utah Department of Transportation (UDOT) has a vision, mission, and three strategic goals that form the backbone for defining direction and success within the Department. Specific objectives have been added to UDOT's adopted strategic goals to define Utah's goals for a multimodal transportation system supported by the Utah State Rail Plan (USRP). The majority of freight handled by rail in Utah is either originating or terminating in Utah or passing through the state en route to or from the west coast and the Midwest.

There is one intermodal freight terminal located in Utah, Union Pacific's (UP) Salt Lake City Intermodal Terminal (SLCIT), which was built in 2006 and receives about 500 trailer and container lifts per day. The Ports of Los Angeles and Long Beach, as well as the Port of Oakland, are Utah's primary global gateways. Rail intermodal freight service at SLCIT is focused on UP's Midwest to Southern California mainline. There are 1,343 miles of freight railroad in Utah, and as of 2013 the UP remains the dominant rail carrier. Utah has two forms of passenger railroads, Amtrak's intercity *California Zephyr* line, and *FrontRunner* commuter rail, operated by the Utah Transit Authority (UTA). The Heber Valley Railroad is Utah's one tourist railroad, running from Heber to Provo Canyon.

Chapter 2 – The State's Existing Rail System

As shown in Table 1, there are currently 13 railroads that operate in Utah, 10 freight railroads and three passenger railroads. Figure 1 shows the rail system in Utah.

Table 1: Railroads in Utah

Freight Railroads	Passenger Railroads
BNSR Railway	Amtrak (National Railroad Passenger Corporation)
Comstock Mountain Lion Railroad	Heber Valley Railroad
Deseret Western Railway	Utah Transit Authority Commuter Rail
Kennecott Utah Copper LLC	
Salt Lake City Southern Railroad	
Salt Lake, Garfield and Western Railway	
Savage, Bingham and Garfield Railroad	
Union Pacific Railroad	
Utah Central Railway	
Utah Railway	

The Wasatch Front is the hub for six railroad routes, all of which are owned by UP. The historic Overland Route was the first transcontinental railroad, and the first railroad built through Utah. The completion of the Overland Route culminated with the driving of the golden spike at Promontory, Utah on May 10, 1869. The connection of the two railroads was moved to Ogden in 1874, and Ogden remained the busiest rail center in the state until it was surpassed by Salt Lake City during the 1980's. The historic Overland Route east of Ogden remains the busiest railroad freight mainline in Utah. The Overland Route east remains Utah's most important link for railroad freight with the rest of the United States. Figure 2 shows the current UP system in Utah.

BNSF Railway, originally known as the Burlington Northern and Santa Fe Railway Company, serves the state of Utah via trackage rights over a route that links Denver, Colorado with Stockton, California and throughout the Provo, Salt Lake City and Ogden areas. BNSF's trackage rights over parts of the UP and Southern Pacific (SP) networks were obtained in 1995, when the Surface Transportation Board (STB) granted BNSF the ability to serve customers in Utah via trackage rights in order to maintain freight competition. BNSF, one of America's leading freight railroads, operates in 28 states and two Canadian provinces. In Utah, BNSF currently interchanges with four short line railroads that provide rail served connections to customers, connecting over 400 miles of Utah rail lines to BNSF's extensive network.

The Utah Railway is a Genesee & Wyoming short line railroad that interchanges with BNSF and UP. The Utah Railway also operates over an extensive network of trackage rights assigned to BNSF Railway that resulted from the UP/SP merger. Utah Railway serves customers throughout the Provo, Salt Lake City to Ogden, Wasatch Front population corridor, including the Little Mountain and Weber areas near Ogden, as an agent of BNSF Railway. The Utah Railway's operations range from local freights serving

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Wasatch Front oil refineries and other industries to hauling unit trains of coal over the state's highest railroad pass, 7,440 feet Soldier Summit.

Utah Transit Authority's *FrontRunner* commuter rail provides service from Provo to Salt Lake City to Pleasant View, just north of Ogden. UTA was formed in 1970 as the Wasatch Front population corridor's transit bus provider, expanding into light rail in 1999 and commuter rail in 2008. UTA's service area encompasses more than 1,400 square miles and 75 communities in a six county area that includes 80 percent of Utah's residents. Figure 5 shows UTA's *FrontRunner* commuter rail service.

Figure 1: Railroads in Utah

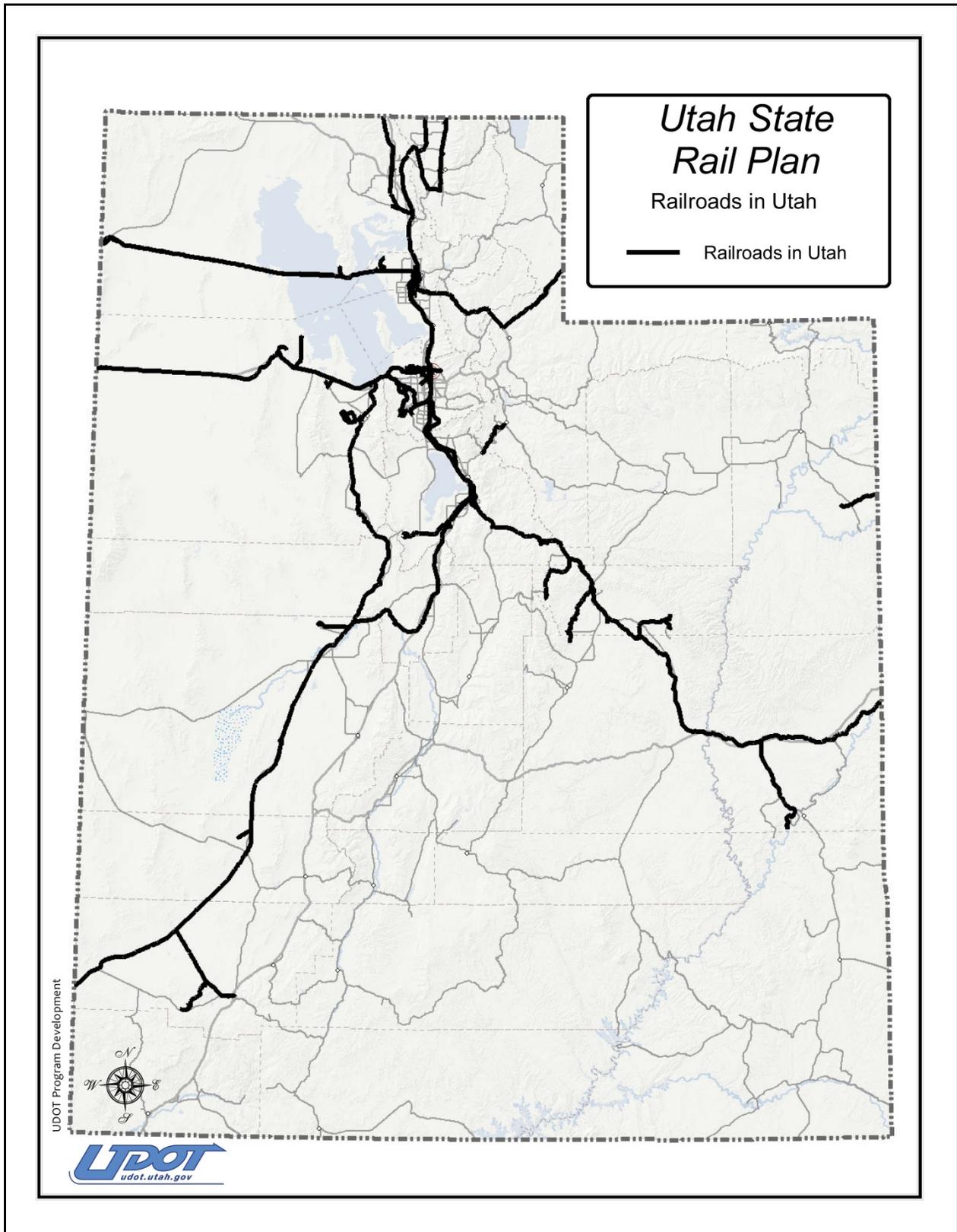


Figure 2: Union Pacific Railroad

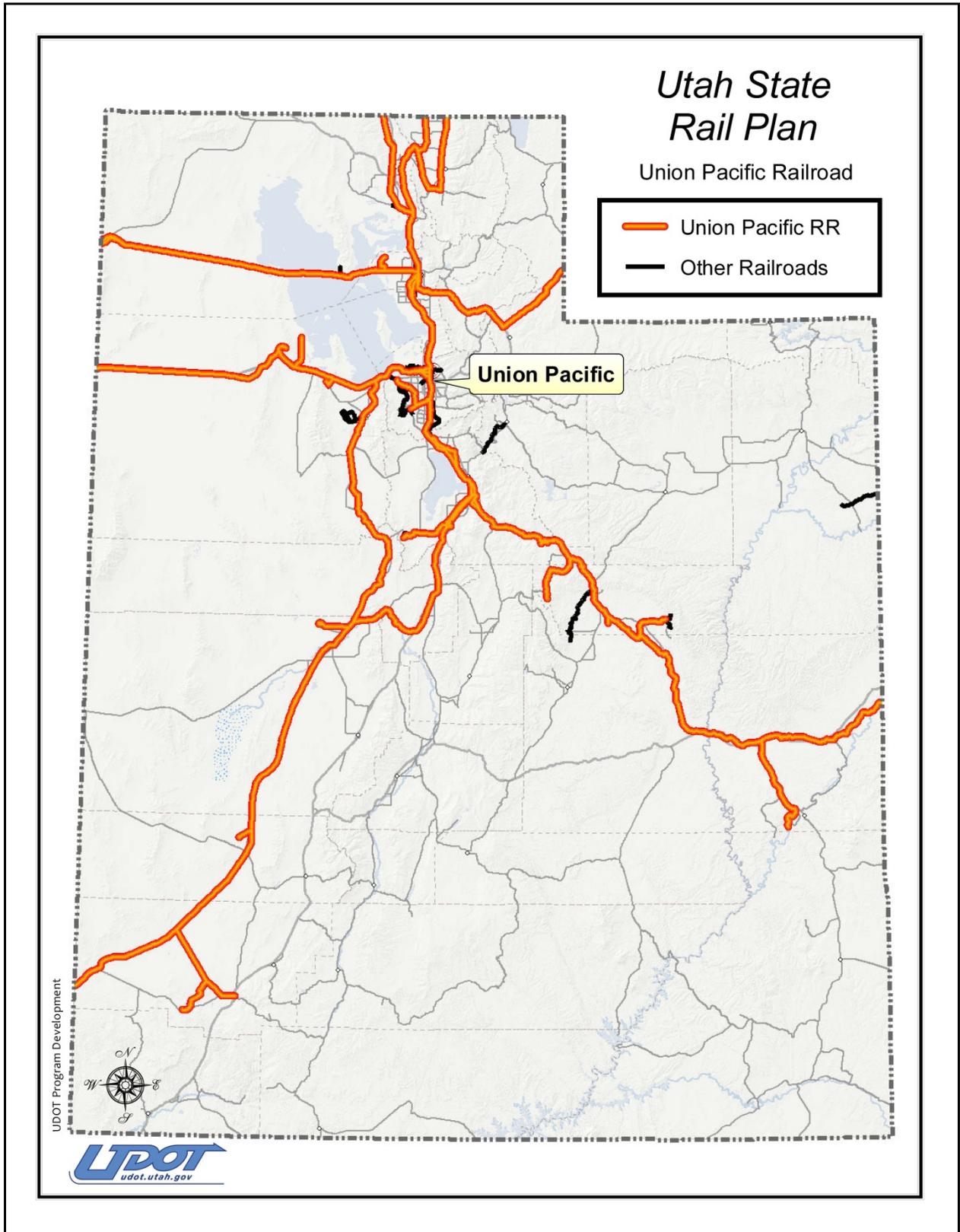


Figure 3: BNSF Railway

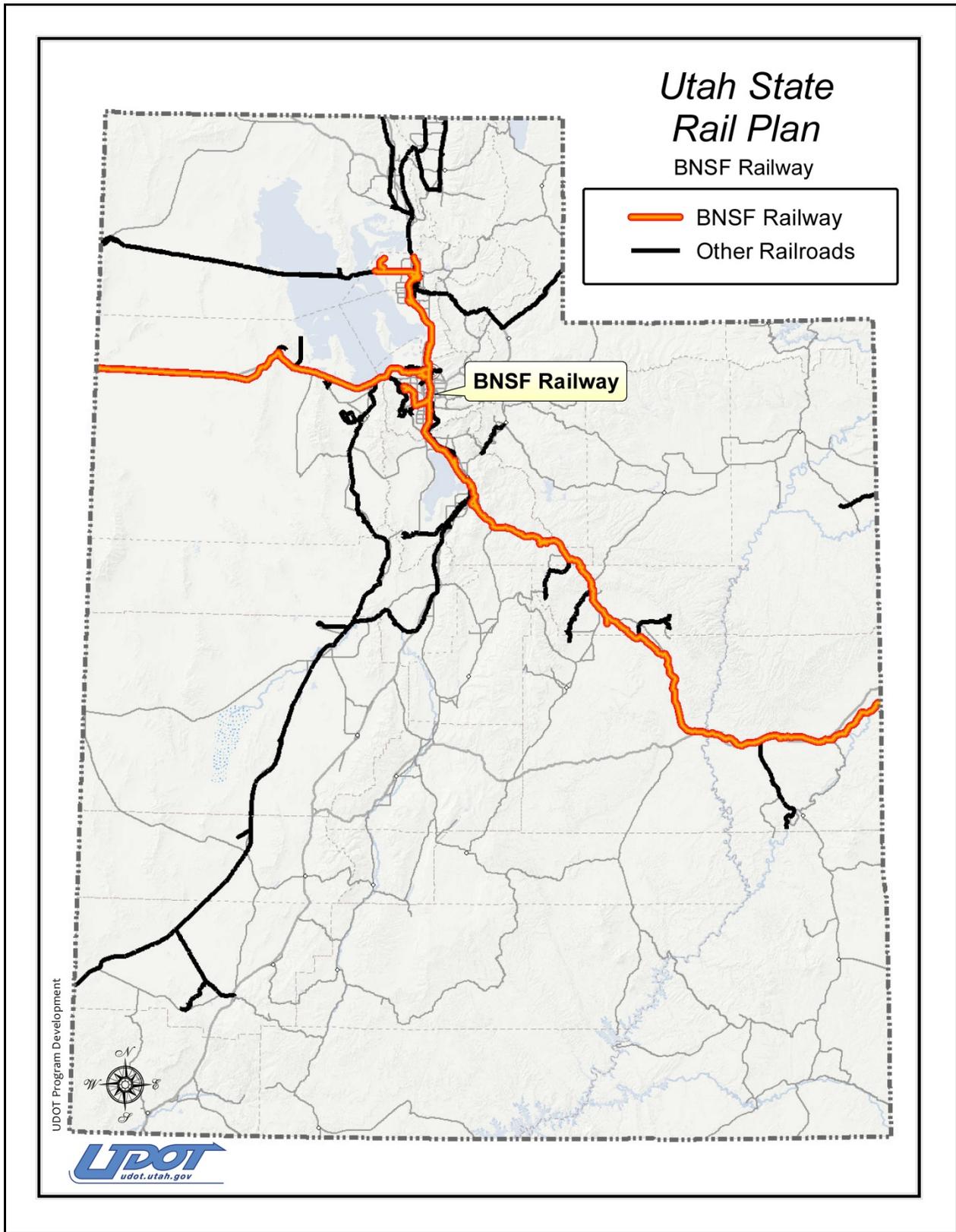


Figure 4: Utah Railway

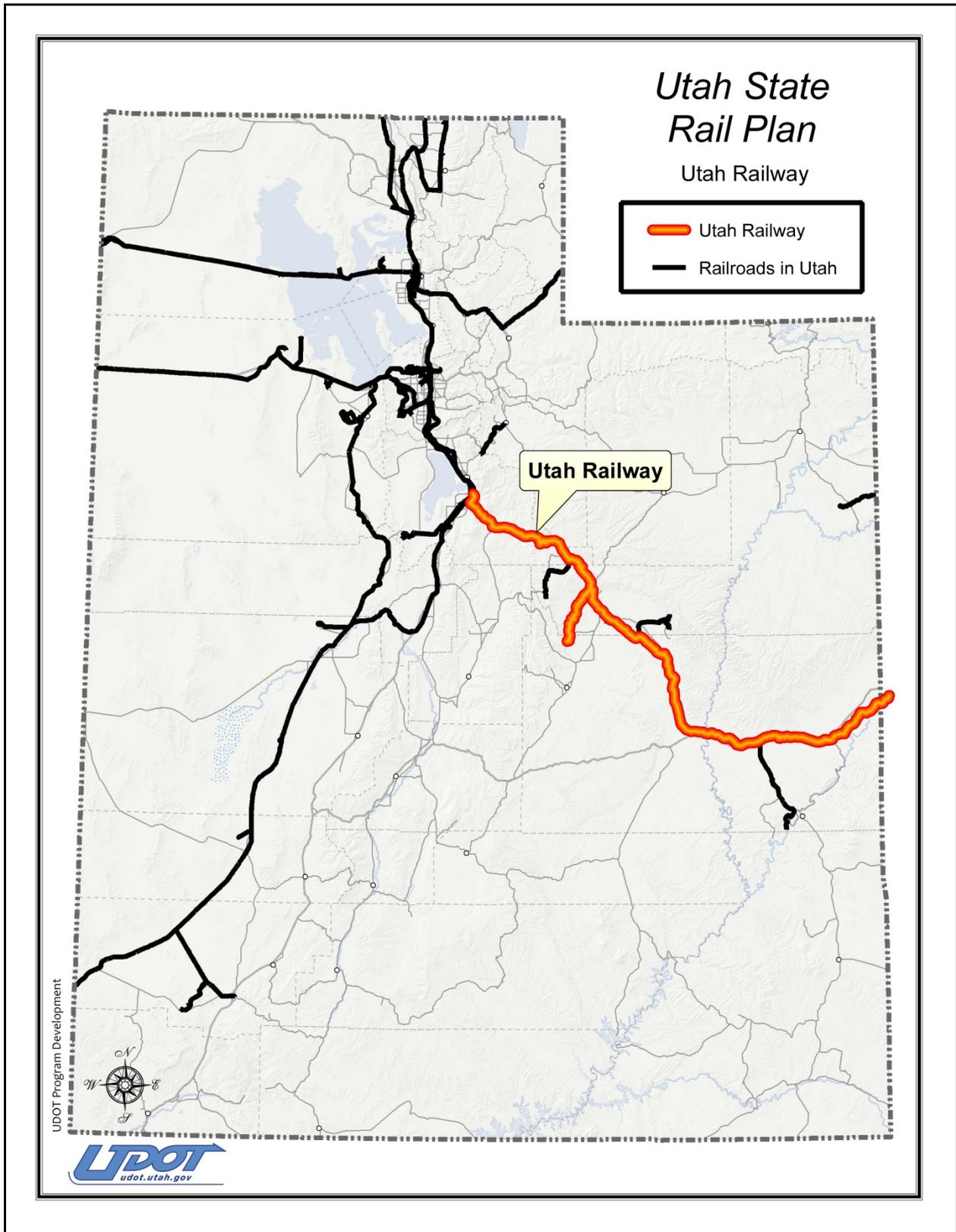
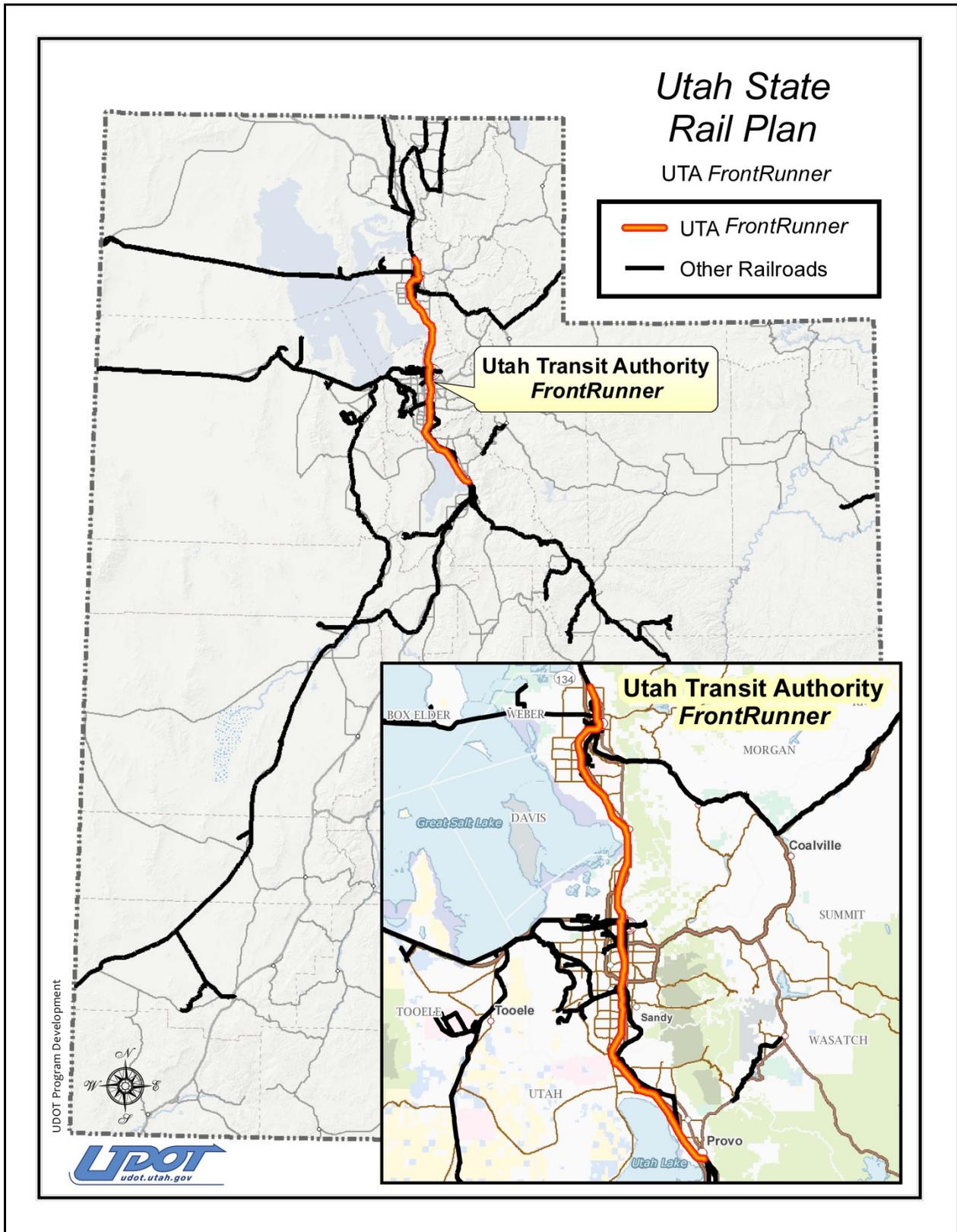


Figure 5: Utah Transit Authority *FrontRunner*



Chapter 3 – Trends and Forecasts

Population growth within the state will drive freight and passenger rail demand over the coming decades. Utah's population is forecast to increase from approximately 2.2 million in 2010 to 3.9 million in 2040. Employment in Utah is expected to increase from 1.6 million jobs to 2.6 million jobs between 2010 and 2040 or an increase of more than 60 percent. The majority of employment growth is anticipated to be within professional services, education/health services and government. Employment growth near existing passenger rail corridors will increase demand for commuter and intercity passenger rail service. Utah was among the lowest ranked states for per capita personal income at 46th with a per capita income of just \$33,509 in 2011. The per capita personal income in Utah was \$8,000 less than the national average. In 2011, Utah's current-dollar gross domestic product (GDP) was \$124.5 billion and it ranked 33rd in the United States. In 2011, rail shipped more than 36 million tons and is expected to increase by almost 17 million tons by 2040. Coal is the top commodity in Utah comprising approximately 28 percent of freight tonnage and 48 percent rail tonnage in 2011. Coal is also the top commodity to terminate in Utah accounting for approximately 25 percent of freight tonnage and 77 percent rail tonnage in 2011. Much of the coal that originates within Utah also terminates in Utah.

Chapter 4 – The State's Existing Rail System: Rail Service Needs and Opportunities

There are several potential rail freight service gaps in Utah, including direct rail freight service to the resource rich Uinta Basin, closer access to the Sufco Mine (coal) near Salina, Utah and the re-introduction of rail service to southwest Utah County for the purposes of agriculture, mining and manufacturing. There are also potential rail service gaps for Amtrak service which include intercity rail passenger service between Salt Lake City and Los Angeles, California and intercity rail passenger service between Salt Lake City and Seattle, Washington as national network passenger trains. Possible needs for commuter rail service include rail service on Sundays, commuter rail service from Pleasant View to Brigham City, and commuter rail service from Provo to Santaquin, Utah. There is potential for growth in rail-based tourism in Utah. Heber Valley Railroad operates as Utah's only tourist railroad line.

Chapter 5 – Proposed Passenger Rail Improvements and Investments

Utah has not involved itself in state-supported intercity rail passenger service because of fiscal and geographic limitations. Amtrak has studied the feasibility of restoring the *Pioneer* line which ran between Chicago and Seattle via Denver and Salt Lake City, but concluded that it would require significant expenditures for capital costs and ongoing operating costs not covered by fare box revenues. The Wasatch Front Regional Council

(WFRC) and Mountainland Association of Governments (MAG) have developed Regional Transportation Plans which include planned commuter rail projects. These projects include:

1. Improvements to the segment of *FrontRunner* between the Ogden and Pleasant View stations (Phase 2 - 2021 to 2030).
2. A new segment of *FrontRunner* from the Pleasant View station north to the Box Elder County line, as part of an extension to Brigham City (Unfunded Phase).
3. A new segment of *FrontRunner* from Provo to Payson (Phase 2, 2021 to 2030).
4. A new segment of *FrontRunner* from Payson to Santaquin (Phase 3, 2031 to 2040).
5. A new segment of *FrontRunner* from American Fork to Santaquin via Cedar Valley (Unfunded Phase).

High speed rail in Utah is not currently in USDOT plans. The Western Regional Alliance (WRA), however, has developed a vision for high-speed rail connections throughout the Intermountain West. Under the WRA vision, Utah would have connections to Reno, Denver and Las Vegas.

Chapter 6 – Proposed Freight Rail Improvements and Investments

There are several freight rail improvement proposals in Utah. The Central Utah Rail Project would bring a proposed railroad closer to Utah's largest coal mine, Sufco Mine, near Salina. The Uinta Basin Project would also bring rail service to the Uinta Basin, possibly through a connection to the main UP line in Carbon County. The proposed Potash Ridge Project at Blawn Mountain is located in southwestern Utah and would provide a rail connection between the proposed mine and the UP Salt Lake Route at a point southwest of Milford, Utah. Crude oil in the Uinta Basin is emerging as an opportunity for proposed rail improvements to the region. Crude oil is currently shipped from the Uinta Basin by truckload to rail transload facilities in Carbon County and along the Wasatch Front. Transporting the oil by pipeline is not currently a viable option because of the nature of the thick, wax-like oil that is found in the Uinta Basin.

Chapter 7 – The State's Long-Range Rail Service and Investment Program (LRSIP)

Utah's rail vision includes five strategic goals: 1) Promote rail safety for everyone, 2) Maintain a state of good repair for rail transportation infrastructure, 3) Develop services for economic competitiveness, 4) Enhance quality of life through livable communities, and 5) Support environmental sustainability. Rail congestion in Utah will become significantly worse by 2035 without continued improvements to capacity and infrastructure. Rail will continue to play a major role in the future for freight and passenger service in Utah.

Chapter 8 – Coordination and Review

Federal, state, and regional agencies were included in the steering committee established to oversee the development of the USRP. Additionally, local governments and other agencies were engaged through a comprehensive outreach effort. Through local government meetings, outreach at metropolitan planning organizations, and industry involvement, issues and concerns specific to agencies and across public and private entities were thoroughly and thoughtfully addressed in the process. Over 200 local officials, including staff and elected personnel, were given the opportunity to provide input on rail conditions and future rail needs around the Wasatch Front region. In addition, the USRP Working Group consisted of private and public sector representatives that met eight times over a two-year period participating in the development of the USRP.

Chapter 1 – The Role of Rail in Statewide Transportation (Overview)

Objective: Illustrate the current and proposed future role of rail in the state’s multimodal transportation system. Describe how the state is organized to provide political, legal, and financial support to rail development.

1.1 The state’s goals for the multimodal transportation system.

The Utah Department of Transportation (UDOT) has a vision, mission, and three strategic goals that form the backbone for defining direction and success within the Department. Specific objectives have been added to UDOT's adopted strategic goals to define Utah's goals for a multimodal transportation system supported by the Utah State Rail Plan (USRP). UDOT’s vision, mission, and three strategic goals, along with specific objectives for the USRP, include:

1.1.1 Vision

UDOT’s vision is “Keeping Utah Moving.”

1.1.2 Mission

UDOT’s mission is “Innovating transportation solutions that strengthen Utah’s economy and enhance quality of life.”

1.1.3 Strategic Goals

UDOT’s three strategic goals are as follows:

1. Zero Crashes, Injuries and Fatalities
 - The USRP will reinforce safety programs as they relate to railroad operations and railroad crossing safety.
 - The USRP will offer and promote opportunities for leveraging funding through public-private partnerships.
2. Optimize Mobility
 - The USRP, as a product of UDOT, will emphasize UDOT's desire to improve mobility and views mobility and mobility choice as important goals.
3. Preserve Infrastructure
 - The USRP will foster an open public process, particularly with respect to policies that support future rail service.
 - The USRP supports private market solutions with respect to long distance travel and shipping choices and rail industry opportunities.

1.2 A conceptual analysis of rail transportation's role within the state's transportation system.

1.2.1 Freight Railroads

The railroad industry continues to play a vital role in the transportation of freight in and through Utah. Currently the railroads are the number two freight carrier in Utah behind trucking and ahead of pipelines. Utah sits astride both Union Pacific Railroad (UP) Central Corridor routes linking northern California and the Midwest, with other routes radiating out from northern Utah rail terminals to Pocatello, Idaho and the Pacific Northwest as well as Southern California.

Given the layout of the state's railroad network and the state's mountainous terrain, there are no railroad freight shipments exceeding 500 miles that remain within Utah's boundaries. Most of the freight handled by rail in Utah is either originating or terminating in Utah or passing through the state en route to or from the west coast and the Midwest.

There are sizeable tonnages of both coal and cement handled totally within Utah by rail. It is interesting to note that more than 80 percent of the electricity generated in Utah comes from coal with the railroads delivering approximately half of that coal. The trucking industry and the railroads work cooperatively to move Utah coal inasmuch as only one of Utah's coal mines has direct rail service.

Most rail shipments of coal mined in Utah travel to power plants within the state or to neighboring Nevada. A modest amount of Utah coal is shipped to power plants in the Midwest, but the relatively small tonnages involved reflect the overwhelming dominance of Wyoming's Powder River Basin coal serving those markets.

Only one intermodal freight terminal is located in Utah. UP's Salt Lake City Intermodal Terminal (SLCIT) is a relatively new (2006) facility. It is located directly adjacent to Salt Lake City's west side warehousing and distribution center and in close proximity to three of Utah's Primary Freight Network highways as well as the Salt Lake City International Airport. Shipments from as far away as Montana are trucked to and from UP intermodal trains at SLCIT. At the current time, the UP averages around 500 container and trailer lifts per day at SLCIT.

Rail intermodal freight service at SLCIT is focused on UP's Midwest to Southern California mainline. The Ports of Los Angeles and Long Beach are Utah's primary global gateways, with the Port of Oakland in northern California sharing in a lesser capacity in Utah's international and Pacific Rim intermodal business. Given the location of UP's main route to the Pacific Northwest, which bypasses Utah through Wyoming and Idaho, the Ports of Portland, Tacoma and Seattle play only a minor role in handling international intermodal shipments to and from Utah by rail.

When the railroads were deregulated in 1980 there were four Class I railroads serving Utah. By 1996 that number had been reduced by mergers to just one, the UP. At that time the Burlington Northern and Santa Fe Railway (BNSF) was directed by the Federal Surface Transportation Board (STB) to provide service via trackage rights over two UP lines serving Utah. As of 2013 the UP remains the dominant rail carrier in Utah.

The Association of American Railroads (AAR) statistics for 2011 also point out that a total of 1,343 miles of freight railroad is in operation in Utah, the majority of which is owned by the UP. BNSF Railway operates over 433 miles of trackage rights on UP and Utah Railway lines, and there are approximately 100 miles of track served by Utah's local, switching and terminal railroad lines via direct ownership of those lines or trackage rights over other railroads.

Utah has long been a major hub for the UP, though the 1996 merger with Southern Pacific (SP) diverted much of UP's Midwest to Southern California freight traffic to former SP lines across the southwest via El Paso, Texas. UP operates two routes between Utah and Northern California, a route east to Midwest via Wyoming and another via Denver, Colorado. There is a line to Southern California via Las Vegas, Nevada, and a route north to Pocatello, Idaho. Three of the six UP routes radiating out from northern Utah railroad yards have been acquired through mergers since 1980.

BNSF provides freight service over one of the longest trackage rights operations in U.S. railroad history. BNSF freight trains originate in either Stockton, California or Denver and use UP lines through Utah via Grand Junction, Colorado; Provo and Salt Lake City, Utah; Reno, Nevada and Roseville, California. Daily freight train service is operated by BNSF between Denver and Provo. Daily service is operated on an as needed basis from Provo to Stockton depending upon business levels.

The Utah Railway is the largest of Utah's non-Class I railroads with both owned tracks and trackage rights over the UP. The Utah Railway is one of 111 railroads of various sizes in the United States, Canada, Australia, and Europe that are owned or operated by Genesee & Wyoming. In addition, Utah Railway acts as BNSF's agent in providing competitive service to many Utah shippers.

1.2.2 Passenger Railroads

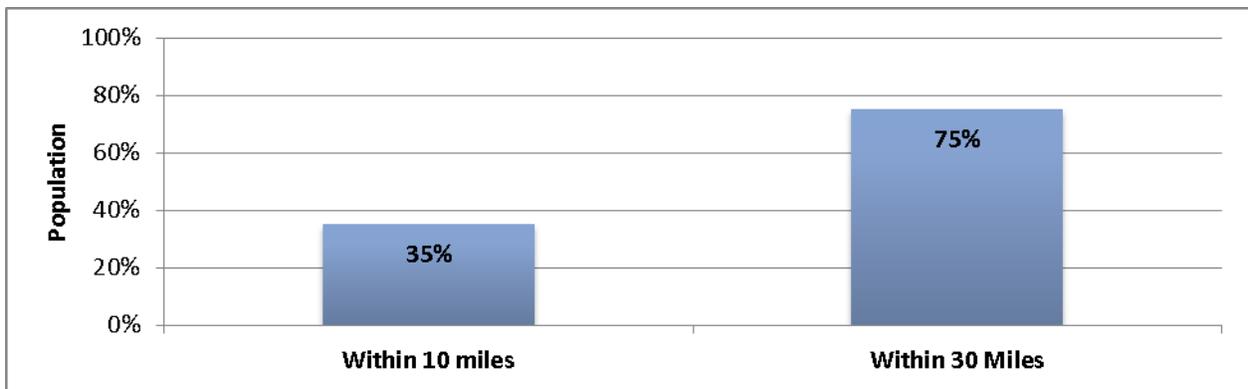
Railroad passenger service comes in two forms in Utah. First, the National Railroad Passenger Corporation (Amtrak) operates a single, long distance, intercity passenger train, the *California Zephyr*, through Utah over two UP routes with station stops in Green River and Helper, Utah; Provo and Salt Lake City. Salt Lake City is the only Amtrak stop which has a manned station selling tickets and providing checked baggage service. Salt Lake City is also a crew change point on the *California Zephyr's* run from Chicago,

Illinois to the San Francisco, California Bay area via Omaha, Nebraska; Denver, Reno, and Sacramento, California.

Utah's other railroad passenger train service is provided by the Utah Transit Authority (UTA). Since 2008, UTA has provided commuter rail service over a dedicated, UTA-owned line between Salt Lake City and Ogden, Utah. Known as *FrontRunner*, UTA's commuter rail service expanded in December 2012 to include service from Salt Lake City south to Provo, again over a UTA-owned and operated mainline. UP has trackage rights on the *FrontRunner* line to serve local industry needs.

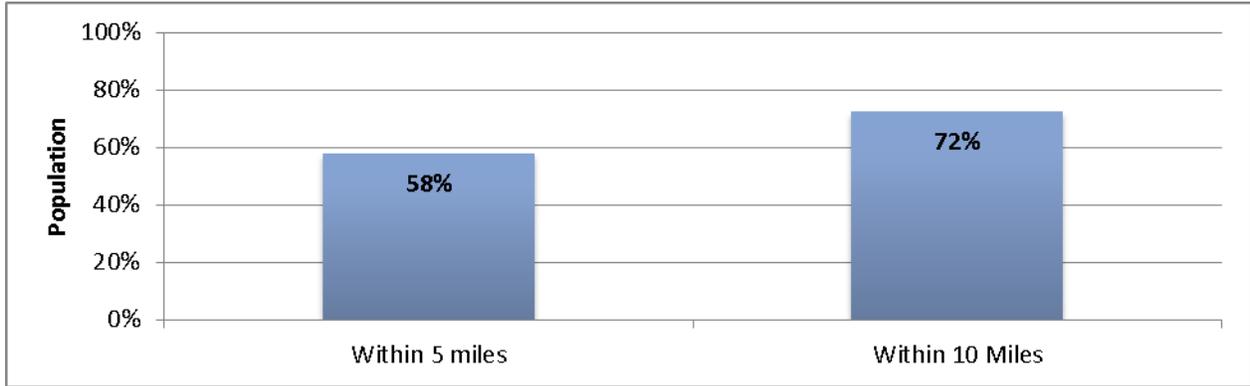
While there are few cities within Utah with Amtrak station stops, a significant share of Utah's population has access to passenger rail service. Most of Utah's population is located along the Wasatch Front where Salt Lake City is centrally located. As a result, 75 percent of Utah's population has a passenger rail station, either Amtrak or *FrontRunner* service, within 30 miles of their home as shown in Figure 6.

Figure 6: Access to Intercity Passenger Rail Service



As with intercity passenger rail, the majority of Utah's population has access to a commuter rail station since *FrontRunner* serves the most populous counties along the Wasatch Front. With the extension of *FrontRunner* to Provo, almost 60 percent of the population lives within five miles of a commuter rail station and over 70 percent live within ten miles of a station as illustrated in Figure 7.

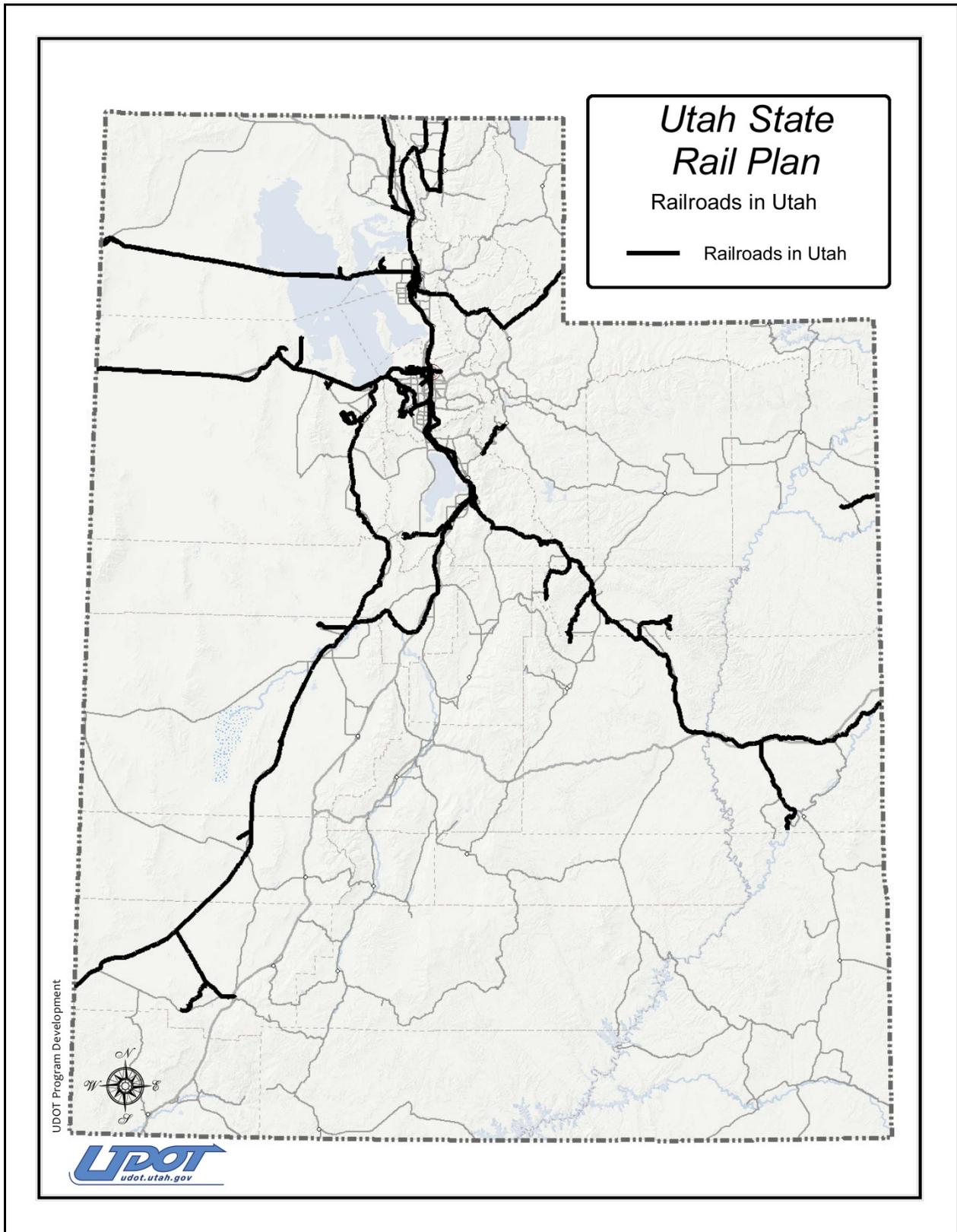
Figure 7: Access to Commuter Rail Service



The *FrontRunner* commuter trains connect with several *TRAX* light rail lines and many bus routes which are also operated as part of a complete system provided by UTA along Utah’s Wasatch Front. UTA’s Salt Lake Central Station is the ground transportation hub for passenger service in Utah, being served by Amtrak, Greyhound, and UTA’s bus, *TRAX* light rail and *FrontRunner* commuter rail services. UTA is also a member of the Western Regional Alliance, an organization that is investigating the feasibility of high-speed rail passenger service in the Mountain West and Southwest, potentially including Salt Lake City.

The railroad industry is an important part of a balanced transportation system in Utah, which serves to make the state an attractive location for business and industry. Railroads join with extensive truck freight operations, a major pipeline system, and air cargo services at Salt Lake International Airport to reinforce Utah’s long-standing reputation as “The Crossroads of the West.”

Figure 8: Railroads in Utah



1.3 A description of the institutional governance structure of the state rail program(s) including: state rail transportation authorities, state rail plan approval authority, state and local agencies involved in delivering rail services, such as transit agencies and Metropolitan Planning Organizations (MPOs), and state authorizing (and limiting) laws and powers for planning, funding, and operating rail services; and a statement that the state is in compliance with the requirements of Section 22102 (which stipulates eligibility requirements for a long-established Federal Railroad Administration rail freight grant assistance program pertaining to state planning and administration).

The state rail transportation authority is the Executive Director of UDOT and the state rail plan approval authority is also the Executive Director of UDOT as indicated in a letter dated January 3, 2013 to Joseph C. Szabo from John R. Njord: UDOT's Executive Director at the time. The local agency involved in delivering rail service is UTA and includes *TRAX* light rail and *FrontRunner* commuter rail transit operations along the Wasatch Front. Two MPOs in Utah also plan for rail transit, the Mountainland Association of Governments (MAG) and the Wasatch Front Regional Council (WFRC). The state of Utah is in compliance with Section 22102, which includes the following:

A state is eligible to receive financial assistance under this chapter only when the state complies with regulations the Secretary of Transportation prescribes under this chapter and the Secretary decides that:

1. The state has an adequate plan for rail transportation in the state and a suitable process for updating, revising, and modifying the plan;
2. The state plan is administered or coordinated by a designated state authority and provides for a fair distribution of resources;
3. The state authority –
 - a. is authorized to develop, promote, supervise, and support safe, adequate, and efficient rail transportation;
 - b. employs or will employ sufficient qualified and trained personnel;
 - c. maintains or will maintain adequate programs of investigation, research, promotion, and development with opportunity for public participation; and
 - d. is designated and directed to take all practicable steps (by itself or with other state authorities) to improve rail transportation safety and reduce energy use and pollution related to transportation; and
 - e. the state has ensured that it maintains or will maintain adequate procedures for financial control, accounting, and performance evaluation for the proper use of assistance provided by the United States Government.

1.4 A description of the state's authority for grant, loan, and public/private partnership financing; how the state has used these authorities in the past; state revenue sources that are dedicated to rail funding (if any); and how much the state has provided in funding over the past five years.

As per the state of Utah Constitution and Code, currently UDOT is extremely limited in its ability to participate with grants or loans to railroads in Utah. Therefore, there have not been any past grants, loans, or public/private partnership financing for railroads in Utah in the last five years. While the Utah Constitution and Code limits specific funding sources from being used for non-highway purposes, other funding sources could be explored in the future by the Utah Legislature.

The Utah Constitution prohibits the use of taxes generated from use of motor vehicles and expenditures on non-roadway related issues. Article XIII, Section 5 Use and amount of taxes and expenditures, number six list the following:

Proceeds from fees, taxes, and other charges related to the operation of motor vehicles on public highways and proceeds from an excise tax on liquid motor fuel used to propel those motor vehicles shall be used for:

- a. statutory refunds and adjustments and costs of collection and administration;
- b. the construction, maintenance, and repair of state and local roads, including payment for property taken for or damaged by rights-of-way and for associated administrative costs;
- c. driver education;
- d. enforcement of state motor vehicle and traffic laws; and
- e. the payment of the principal of and interest on any obligation of the state or a city or county, issued for any of the purposes set forth in Subsection 6 b and to which any of the fees, taxes, or other charges described in this Subsection 6 have been pledged, including any paid to the state or a city or county, as provided by statute.

The Utah Code also specifies the use of transportation funding exclusively for highway purposes. Title 72-2-102, Transportation Fund, declares the following:

1. There is created a fund entitled the "Transportation Fund."
2. Transportation Fund money shall be used exclusively for highway purposes as provided in this title.

1.5 A summary of the freight and passenger rail services, initiatives and plans sponsored by state rail transportation authorities, regional planning agencies, regional transportation authorities, and municipalities within the state, or in the region in which the state is located, that have been considered while preparing the plan. A summary of services, initiatives, and plans of private sector railroads, as well as connections between rail services and other modes in the state transportation system, to the extent known to the state, are to be included here as well.

1.5.1 Freight Rail Sponsored by the State

1.5.1.1 Isolated Empire Rail Project

The Isolated Empire Rail Project (IERP) study from 1999 to 2001 resulted from interest by the counties and communities in northeastern Utah's resource-rich Uinta Basin in bringing railroad freight service into that area. The counties and communities involved enlisted the help of the now nonexistent Utah Department of Community and Economic Development to spearhead this hoped-for rail project.

Economic development, primarily in the form of a proposed phosphate mine in the Uinta Mountains north of Vernal, Utah, and processing plant to be located near the Bonanza Steam Power Plant southeast of Vernal, were the driving forces behind the IERP. This new phosphate development would have been in direct competition with the existing S & F Phosphate Mine located directly east of the proposed new phosphate facility on the south slope of the Uinta Mountains. It was not projected that this new rail project would be involved more than indirectly in the energy industry, which was in a slump at that time in the Uinta Basin.

Aside from a funding earmark for studying the feasibility of the project, there was no government funding available for the line's construction and operation should it be built. As a result of this lack of major funding support, the railroad was projected to travel into the Uinta Basin via the adjacent state of Colorado, which provided the least expensive route alternative into the Basin. Several route alternatives were studied in the initial feasibility study, with the route from Rifle, Colorado north over Rio Blanco Divide to Meeker, Colorado and then west to the Rangely area where the line would enter Utah just east of the Bonanza plant location, being the preferred route.

Rifle was selected since it provided access to UP's former Rio Grande mainline linking Salt Lake City with Denver over which the BNSF Railway has STB directed trackage rights following the UP/SP merger in 1996. As such the new railroad would have access to both major Class I railroads serving the west.

Once the initial feasibility study and operations study were completed, no further work was done on the IERP. This was the result of the lack of government support and funding for the project, as well as the failure of the proposed new phosphate development to obtain funding to proceed. When the current Uinta Basin Rail Project commenced (see below), the original IERP studies and plans were reviewed as a part of the new project's research. However, owing to the change in project focus, and the desire to keep the new rail line totally within the state of Utah, the IERP and its proposed Colorado alignment did not play more than a minor supporting role in the new project.

1.5.1.2 Central Utah Rail Project

This proposed railroad will bring railroad freight service closer to Utah's largest coal mine. The Sufco Mine is located east of Salina, Utah a few miles north of I-70. This mine has produced over 800 coal truck shipments in a single day, with that coal having to travel west on I-70 to Salina, then north via U.S. Highway 89 and State Route 28 to the nearest railroad loadout facility, near Levan, Utah on UP's Provo line. The proposed new railroad would also serve the underground salt mines of Redmond Minerals north of Salina.

The STB's Section of Environmental Analysis (SEA) released the first Draft Environmental Impact Statement (EIS) for the Six County Association of Governments (SCAOG) proposed 43-mile rail line in Sanpete, Sevier, and Juab Counties, Utah on June 29, 2007. A Supplemental Draft EIS was released for public comment on May 2, 2014. Known as the Central Utah Rail Project, this new line would begin at the connection with the UP's Provo mainline located near Levan, about 16 miles south of Nephi, Utah, and would terminate about half a mile southwest of Salina. The new railroad would cost an estimated \$110 million. This railroad would allow industries to access rail transportation for bulk commodities to and from the area.

1.5.1.3 Uinta Basin Rail Project

The state of Utah has identified transportation constraints in the Uinta Basin that limit energy production and community building activities over the next three decades. Transportation constraints in the Uinta Basin were documented in an analysis conducted by UDOT in the Uinta Basin Energy and Transportation Study that was completed in April, 2013.

In this study, the unconstrained estimates of likely-to-be economically feasible energy production were identified with input from government, academic and industry sources of information. The Study concluded that there is the potential that existing and planned transportation capacity is constraining the potential for resource development.

To address the findings in the study, this USRP supports and identifies the need to provide new rail service from existing Class I rail lines to the Uinta Basin. Further study is needed to develop, evaluate and screen alternatives and then initiate the National Environmental Policy Act (NEPA) process to better understand the potential of providing new rail service into the Uinta Basin.

1.5.2 Passenger Rail Sponsored by the State

1.5.2.1 Heber Valley Railroad

The Heber Valley Historic Railroad Authority is an independent state agency formed to operate and maintain a scenic and historic railroad in and around Heber Valley. The Heber Valley Railroad is a tourist railroad that operates from Heber City in Wasatch County to Vivian Park in Utah County.

1.5.2.2 TRAX and FrontRunner

Both *TRAX* light rail and *FrontRunner* commuter rail transit operations have been planned and constructed, and are currently being operated by the UTA using sales tax dollars. As previously mentioned, UTA is a member of the Western Regional Alliance, an organization that is investigating the feasibility of high speed rail passenger service in the Mountain West and southwest, potentially including Salt Lake City.

Utah's Unified Transportation Plan 2011-2040 is a statewide transportation plan that is a compilation of five transportation plans from UDOT, Cache Metropolitan Planning Organization (Cache MPO), WFRC, MAG, and the Dixie Metropolitan Planning Organization (Dixie MPO). The Unified Transportation Plan shows *FrontRunner* commuter rail in the three future phases of the plan.

Figure 9: Future Commuter Rail Service

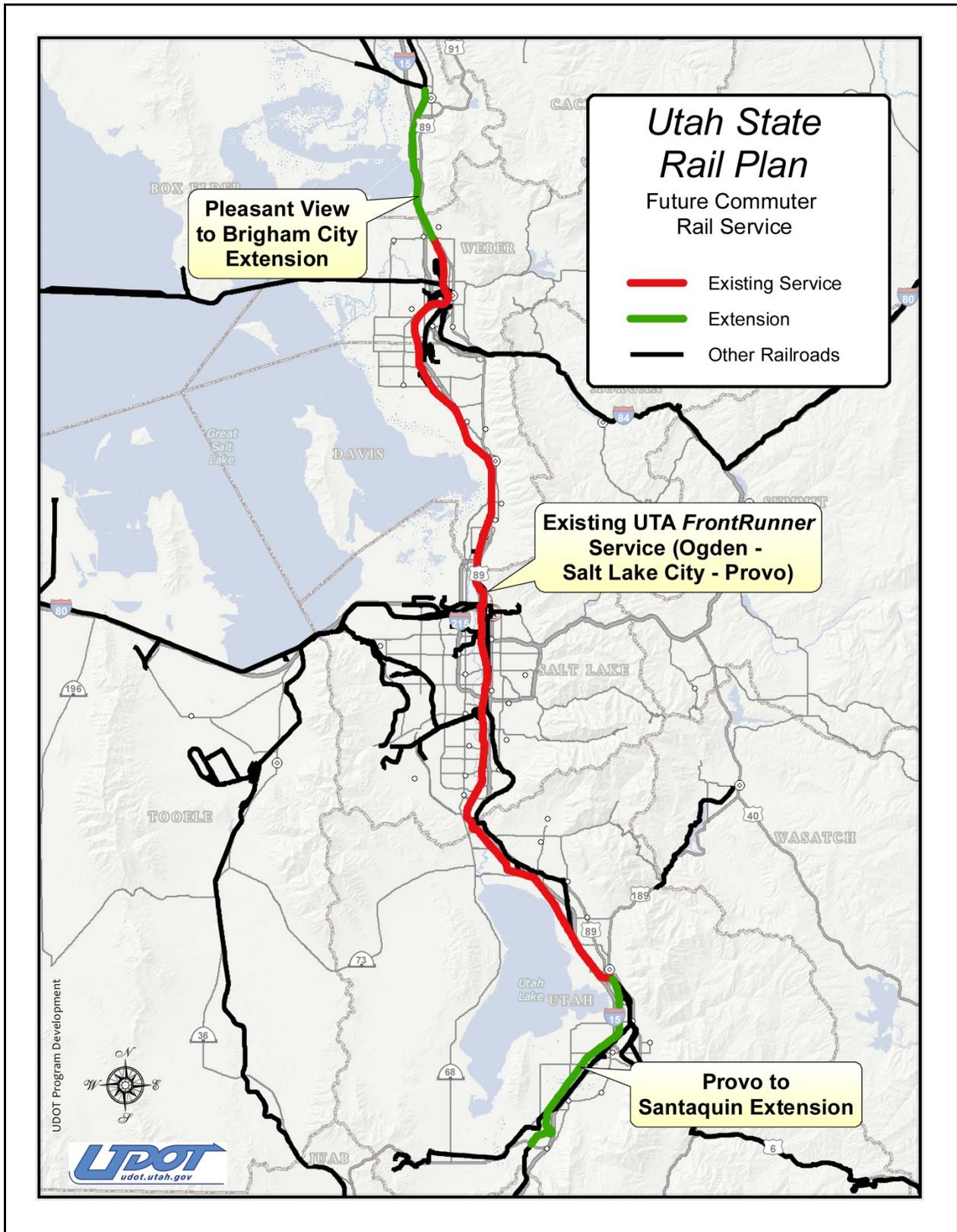


Table 2: Commuter Rail Plans

County	Planning Agency	Project Description	Estimated Cost in Millions	Years
Utah	MAG	Provo to Payson	\$495	2021-2030
Weber	WFRC	Ogden to Pleasant View (improvements)	\$113	2021-2030
Utah	MAG	Payson to Santaquin	\$331	2031-2040

Utah's Unified Transportation Plan 2011-2040, 2011.

While all four metropolitan planning organizations (MPOs) within Utah have transportation plans, only MAG and WFRC are planning for commuter rail.

1.5.3 A summary of the services, initiatives, and plans of the private sector railroads.

The private sector railroads did not provide a summary of services, initiatives, and plans citing proprietary reasons.

1.5.4 Connections

Connections between rail services and other modes in the state of Utah are as follows:

1.5.4.1 Freight Connections and Intermodal

As Utah's dominant railroad freight carrier, UP connects with all other freight rail operators in the state except for the Deseret Power Railway. Most rail freight operates over UP lines via various trackage rights agreements. The primary connection and interchange points in Utah between UP and these other lines are (from north to south), Ogden (Utah Central Railway), Salt Lake City (Salt Lake, Garfield & Western Railway, Savage Bingham & Garfield Railroad), Midvale (Salt Lake City Southern Railroad), Provo (Utah Railway), and Iron Springs (Comstock Mountain Lion Railroad).

In Utah, BNSF interchanges with Utah Railway at Provo. Utah Railway, as BNSF's agent, interchanges with other carriers at Midvale (Salt Lake City Southern Railroad), Salt Lake City (Salt Lake, Garfield & Western Railway), and Ogden (Utah Central Railway).

There is only one rail freight intermodal facility in Utah and that is the Salt Lake City Intermodal Terminal, which is used exclusively by UP. Only UP provides rail intermodal freight service (truck trailers and containers) in Utah. SLCIT is located adjacent to Salt Lake City's rapidly growing west side industrial and distribution warehousing area and is within close proximity of Interstate 80, Interstate 215, and the State Route (S.R.) 201 freeways, all of which are Primary Freight Network routes in Utah, as well as the Salt Lake City International Airport.

Figure 10: Union Pacific's Salt Lake City Intermodal Terminal (Freight)

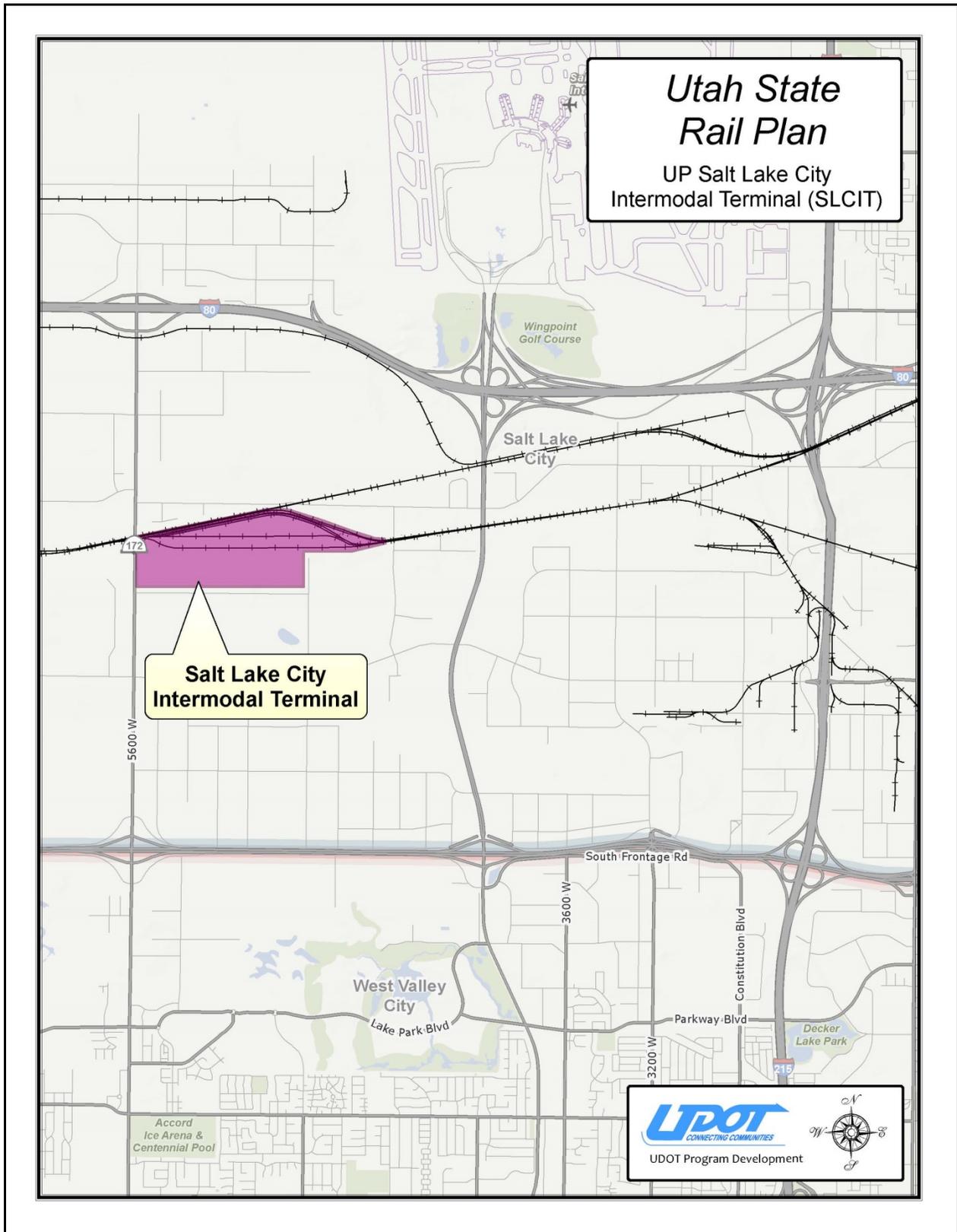
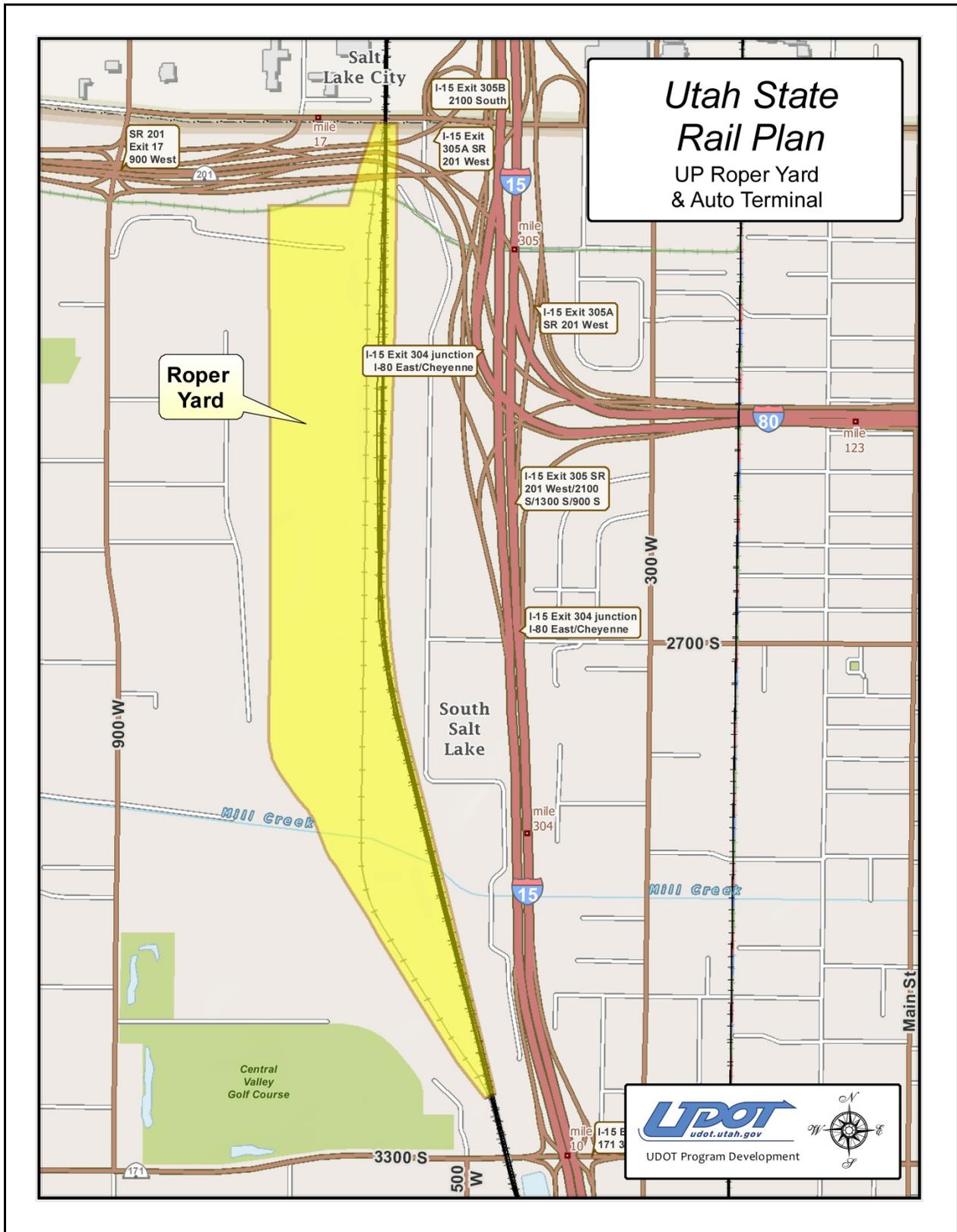


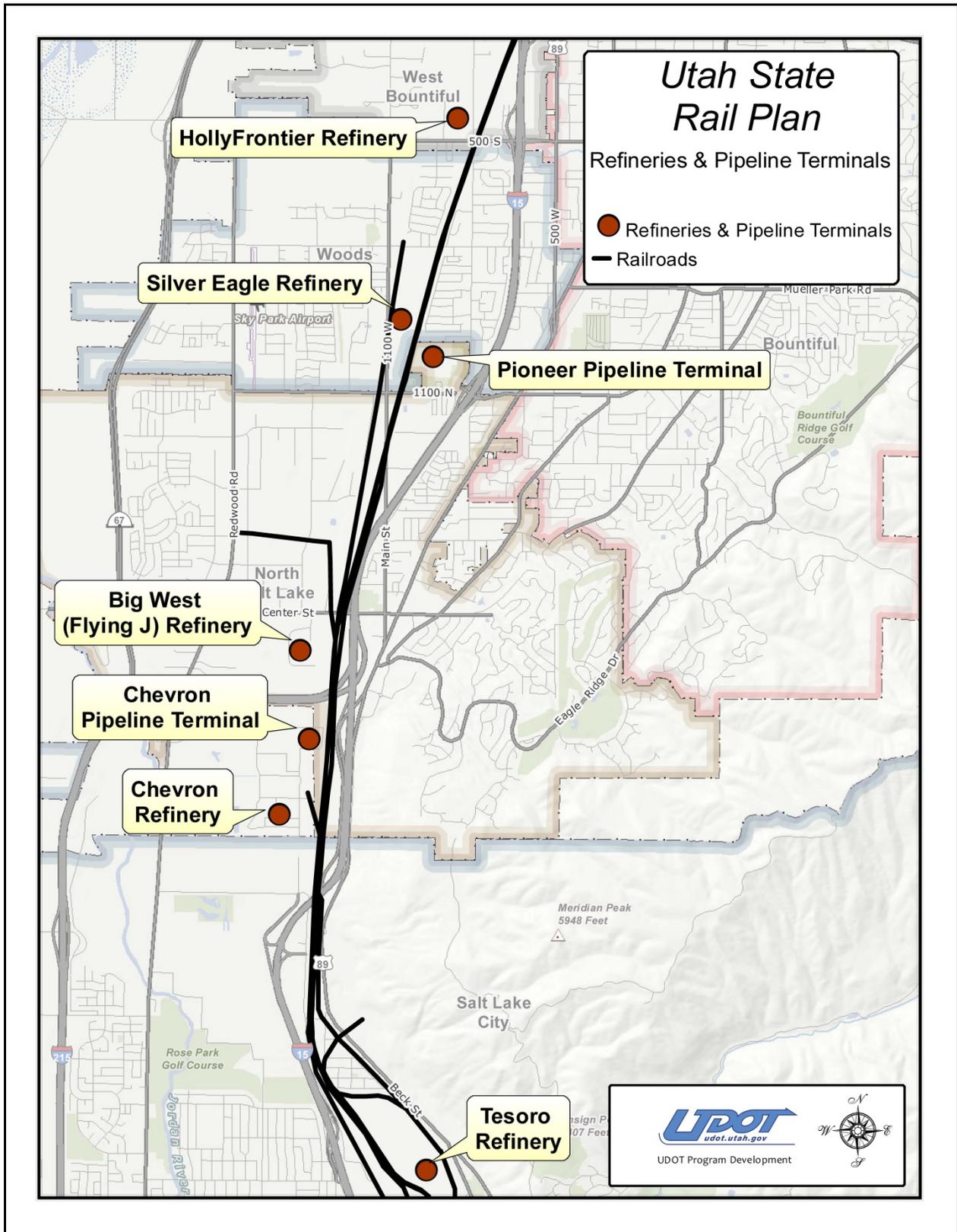
Figure 11: Union Pacific's Roper Yard and Auto Terminal



A facility for new automobiles is maintained by the UP at their Roper Yard, located about three miles south of downtown Salt Lake City adjacent to I-15, I-80, and the S.R. 201 freeways. This facility handles all shipments of new automobiles and vehicles by rail for northern Utah. Southwestern Utah, primarily the communities of St. George, and Cedar City, Utah, receive some of their new vehicle and intermodal freight shipments via I-15 from the modest UP intermodal and auto facilities located in North Las Vegas, Nevada.

There are five oil refineries located between Salt Lake City and suburban Woods Cross, Utah, ten miles to the north. Also in this same energy corridor is the Pioneer Pipeline Terminal for refined petroleum products arriving from out-of-state. All of these facilities provide a multi-modal connection inasmuch as they combine rail freight service with pipelines and trucks.

Figure 12: Oil Refineries and Pipeline Terminals

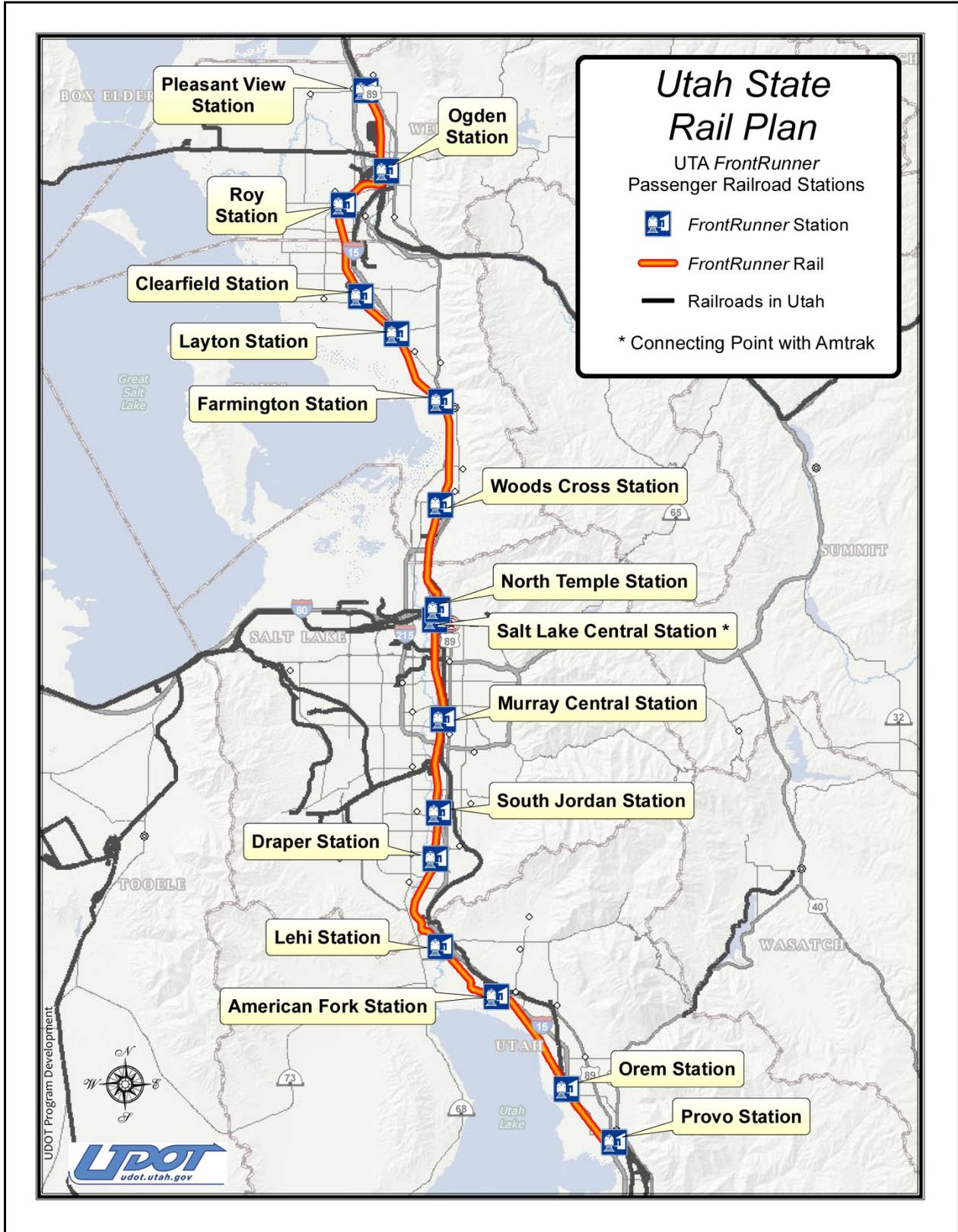


1.5.4.2 Passenger Connections

Amtrak's *California Zephyr* is the only intercity passenger train remaining in Utah since the Salt Lake City/Ogden to the Pacific Northwest *Pioneer* and the Salt Lake City to Southern California *Desert Wind* were discontinued in May of 1997. Amtrak serves the communities of Green River, Helper, Provo, and Salt Lake City with passenger stops, though only Salt Lake City has a manned station selling tickets and providing checked baggage services. The other three Amtrak stops in Utah are unmanned stations with minimal shelter facilities.

Amtrak's Salt Lake City station is a part of the UTA Salt Lake Central Station complex which includes intercity bus service by Greyhound, as well as city buses, *TRAX* light rail and *FrontRunner* commuter rail transit services provided by UTA. A limited multi-modal arrangement is found adjacent to Amtrak's shelter station in Provo where UTA city buses and *FrontRunner* commuter trains use a facility located less than one block from the Amtrak station. UTA *TRAX* and *FrontRunner* stops along those respective systems include connections to UTA's local city bus system.

Figure 13: Intercity and Commuter Rail Connectivity



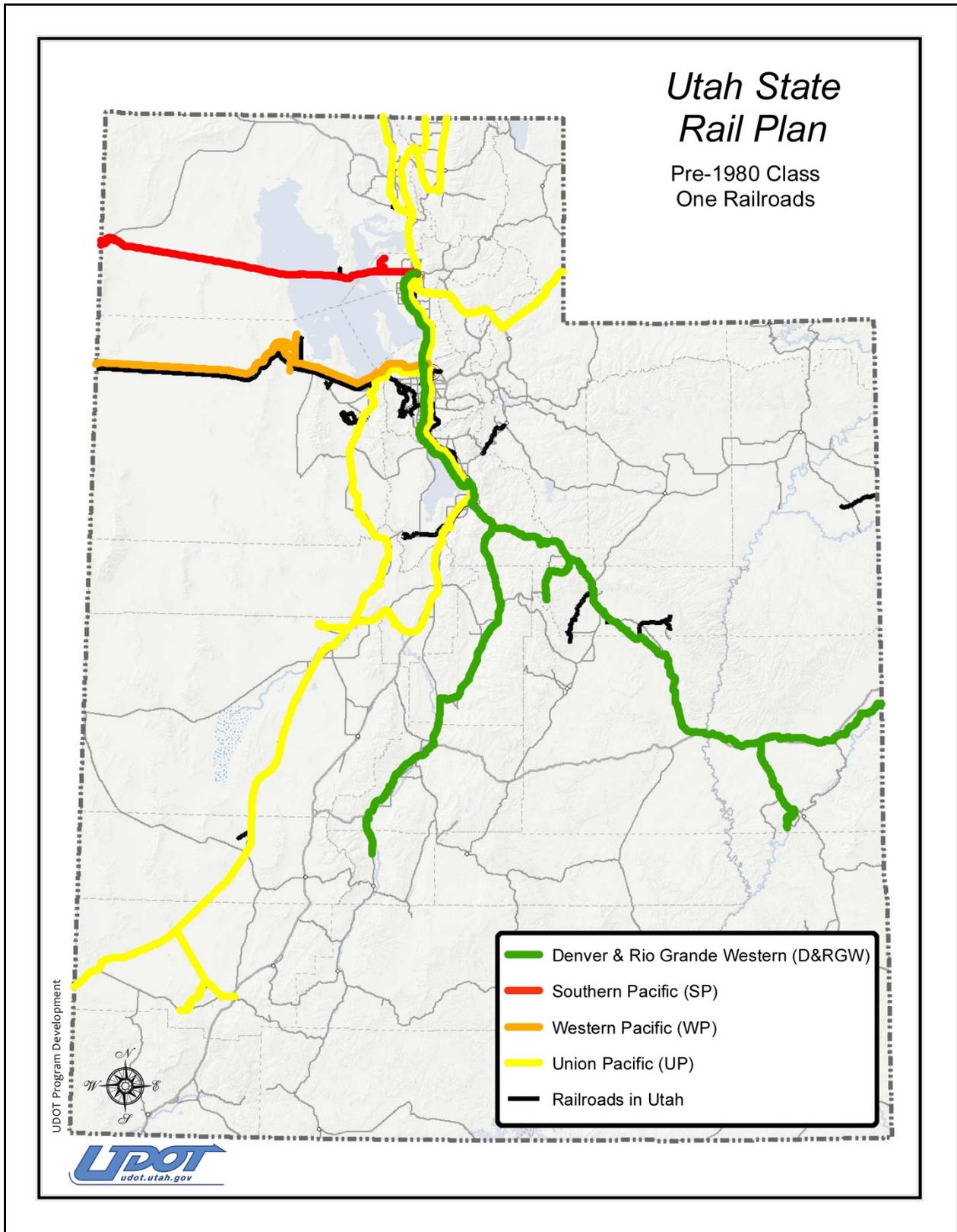
Chapter 2 – The State’s Existing Rail System

Objective: Provide an overview and inventory of the state’s existing rail system as a baseline for planning and decision making.

2.1 The existing freight, intercity passenger, and commuter rail transportation system, services currently operating, operating objectives, and system performance, including: a review of all rail lines and corridors, existing and proposed for freight, commuter, and intercity passenger service, including high speed lines as well as railway assets currently out of service or rail banked. Ownership of and operating rights over each segment of the railroad network, whether private or public, is to be clearly identified.

The Wasatch Front region in northern Utah is the hub of six railroad routes, all of which are owned and operated by the Union Pacific (UP). The deregulation of the railroad industry in 1980 and subsequent mergers by UP have reduced the number of Class I railroads owning and operating mainline trackage in the state to only one. Several other railroad companies operate over all or a portion of selected UP routes in Utah via trackage rights agreements. Given the geography of Utah and its neighboring states, as well as how the patterns of settlement and development evolved here, there are many areas of Utah which have no railroad service. The following map shows the six major railroad routes in Utah converging on the Wasatch Front. Even though all routes are currently owned and operated by UP, prior to 1982 these routes were owned by four different railroads of which UP was one.

Figure 14: Pre-1980 Class I Railroads in Utah



2.1.1 The following is a historical description and overview of the six UP routes which serve the state of Utah, including other railroads that operate on those lines.

2.1.1.1 The Overland Route, America’s First Transcontinental Railroad

Constructed between 1863 and 1869, the historic Overland Route was built by two railroad companies, the UP building west from Omaha and the Central Pacific Railroad (CP) building east from Sacramento. This first railroad across the United States was completed on May 10, 1869 with the driving of the fabled Golden Spike at Promontory, which is located 90 miles northwest of Salt Lake City.

At first UP and CP connected and interchanged both passengers and freight at the remote Promontory location to the north of the Great Salt Lake. After protracted negotiations, and with the added incentive of land provided by Church of Jesus Christ of Latter-day Saints President Brigham Young, the junction point between both railroads was relocated to Ogden, Utah in 1874. Ogden remained Utah’s busiest and most strategic rail center until the mergers of the 1980’s brought Salt Lake City into that position which changed again with the 1996 merger of UP and SP.

In 1885 the CP became a part of the growing SP Railroad Empire with headquarters in San Francisco. SP and UP came under joint control of railroad magnate Edward H. Harriman in 1900 with both maintaining independent identities. However, the United States Supreme Court forced UP to divest itself of control of the SP in 1912. As already mentioned, the UP reacquired the SP on September 11, 1996, which brought the historic Overland Route mainline under the full control of the UP. For the purposes of this overview, the UP and former SP portions of the Overland Route will be examined as separate lines.

2.1.1.2 UP’s Overland Route, today’s UP Evanston Subdivision (Ogden to the Wyoming state line)

The historic Overland Route east of Ogden is the busiest railroad freight mainline in Utah. This route begins at the former Ogden Main Yard and nearby Riverdale Yard and extends east to the Wyoming state line near Evanston, Wyoming. This line climbs east through Weber and Echo Canyons in the Wasatch Mountains rising more than 2,000 vertical feet from Ogden to Evanston. The double-tracked UP Overland Route handles not only all through trains en route to and from northern California on the former SP portion of the Overland Route west of Ogden, it also carries all UP trains en route to and from Southern California via Salt Lake City.

The western end of the Overland Route has fewer trains today than it did prior to 2008 when much of UP’s Southern California traffic was diverted to the former SP Sunset

Route via El Paso. Traffic on this line picks-up east of Utah where all of UP's transcontinental freight traveling to and from the Pacific Northwest via Idaho connects with the Overland Route at the railroad junction point of Granger, west of Green River, Wyoming. Also, eastbound Powder River Basin coal shipments come onto the Overland Route mainline at O'Fallons, a junction point west of North Platte, NE.

The Overland Route crosses the Continental Divide at an elevation of 7,104 feet on the relatively flat high plateaus of southern Wyoming west of Rawlins, Wyoming. The highest point on any portion of the Overland Route is reached at 8,015 feet Sherman Hill between Laramie and Cheyenne, Wyoming. Over the years UP has reengineered its original portion of the Overland Route, including these high elevations in southern Wyoming, to the highest standards to reduce grades and increase train speeds.

Reflecting the increasing train traffic as one continues east on the Overland Route, it is equipped with four mainline tracks from O'Fallons to North Platte and three tracks from there east to Gibbon, NE, where the mainline to Kansas City and St. Louis, Missouri diverges to head southeast. North Platte is also the location of UP's massive Bailey Yard, the largest railroad yard in the world.

Beyond Gibbon, the Overland Route returns to double track for the rest of the journey to Council Bluffs, IA, where the former Chicago and North Western Railroad (C&NW) (acquired by UP in 1995) has a double track line from there to Chicago. The single track former C&NW line from Fremont, NE to Missouri Valley, IA, which serves as a bypass around Omaha and Council Bluffs is currently in the process of being double tracked to handle more of the trains that today pass through Omaha.

2.1.1.3 UP's Former SP Overland Route, today's UP Lakeside Subdivision (Ogden to the Nevada state line)

This mostly single-track line heads west from Ogden across the flatland bordering the Great Salt Lake, then crosses the lake itself on a series of causeways. Known as the Lucin Cutoff, this line across the lake was completed in 1904 to replace the longer and steeper line that passed around the north end of the lake at Promontory. The Lucin Cutoff crosses first the Bear River arm of the Great Salt Lake, and then passes along the southern tip of the Promontory Peninsula, known as Promontory Point and often misidentified as the location where the Golden Spike was driven.

The main crossing of the Great Salt Lake extends west from Promontory Point to Lakeside, after which the flat Great Salt Lake Desert is crossed on a long stretch of mostly straight track. The Nevada state line is reached at the western end of the desert and from here the rail line crosses Valley Pass and Moor Summit on two of the many north/south trending mountain ranges that make-up the Great Basin.

Beyond Moor Summit the route descends to Wells, Nevada, and soon follows the historic California Emigrant Trail as well as the route of the Overland Stagecoach through the Humboldt River Valley via Elko and Winnemucca, NV. The Humboldt Valley is the only water level route across the Great Basin, and the only route with a reliable source of water, hence it has been the primary transportation corridor through the region since the 1840's. Upon leaving the Humboldt River west of Lovelock, Nevada the railroad crosses the Forty Mile Desert, which was so infamous from pioneer days, to join the Truckee River at Fernley, Nevada for the run into Reno and Sparks, Nevada.

West of Sparks the Overland Route crosses 7,015 feet Donner Pass in the Sierra Nevada Mountains of California on the steepest portion of the entire line. The trip over "The Hill," as the Donner grade is known in railroading, is the steepest portion of the entire Overland Route. Westbound grades reach 1.91 percent while eastbound trains must surmount a steep 2.42 percent grade climbing from near sea level in the Sacramento area. Although recently (2009) modified for the operation of double-stack intermodal trains, little can be done to minimize the steep grades and record snowfalls for which Donner has been famous since the CP was built over the pass in the 1860's.

At the base of the Sierra on the edge of California's Central Valley is the UP's Roseville classification yard from Roseville. Rail lines extend north to Oregon and Washington, south to Southern California and points east via Texas, and west to the San Francisco Bay Area. Roseville has been the gathering point for eastbound freight on the Overland Route for more than a century, serving in the reverse capacity as a distribution point for westbound shipments. As with Bailey Yard in North Platte, the Jerry Davis Yard in Roseville originates many freight trains that serve or pass through Utah.

With the loss of most perishable shipments to the trucking industry operating on the Federal Interstate Highway System in the 1970's, as well as the closure of California's auto plants in the early 1980's, the Overland Route west of Ogden is not as busy as it was in earlier years. However, it remains the primary route to and from northern California and the Port of Oakland on San Francisco Bay.

Both portions of the Overland Route combine with the remaining freight traffic routed via Utah to and from Southern California, as well as UP's heavy traffic in and out of the Pacific Northwest to serve as the strategic middle route across America. Often referred to as part of the Central Corridor, which is a name that originated in the post rail deregulation era, the historic Overland Route remains Utah's most important link for railroad freight with the rest of the United States.

2.1.1.4 The Utah Central Railroad (UC), today's UP Salt Lake Subdivision (Ogden to Salt Lake City)

The busy, double-track UP mainline that links Ogden with Salt Lake City began as the original branch line to connect with America's first transcontinental railroad here in Utah. On May 17, 1869 ground was broken next to the UP depot in Ogden on the UC, which began building south to Salt Lake City. This railroad was constructed under the direction of President Brigham Young of the Church of Jesus Christ of Latter-day Saints with the aim of linking Salt Lake City with the transcontinental mainline. President Young drove the last spike on the UC near 600 North Street in Salt Lake City on January 10, 1870.

As other feeder lines were built south of Salt Lake City, traffic on the UC grew. The UP had an early interest in the line, since it was constructed with railroad materials provided by UP to the Church of Jesus Christ of Latter-day Saints as partial payment on the debt UP owed for services provided in building the first transcontinental line. Formal acquisition of the UC by UP took place in 1881.

Following a realignment of the UC mainline in Ogden in 1906 the railroad left the transcontinental mainline just south (railroad direction east) of the Ogden Union Station at 31st Street Junction and proceeded west for about a mile before angling south toward Salt Lake City. UP would eventually double track this route when it became a part of the Salt Lake Route mainline to Southern California, a line that was completed in 1905.

By the 1930's traffic between the Midwest and Southern California was on the upswing, and World War II greatly increased traffic on this route. When UP took over the Western Pacific Railroad (WP) from Salt Lake City to the San Francisco Bay Area in 1982, the traffic which used to travel over the SP portion of the Overland Route west of Ogden now took the UC line south to Salt Lake City and then the WP west. In 1985 the Denver & Rio Grande Western Railroad (D&RGW) began using the UC line instead of its own route between Salt Lake City and Ogden. The D&RGW/SP merger of 1988 further increased trackage rights movements over the Utah UC line.

As UP's only route to Southern California, the UC and Salt Lake Routes saw considerable train traffic up until the UP merger with SP in 1996. As a result, UP now had a low grade route east out of the Los Angeles Basin on the former SP Sunset Route. However, high traffic levels and lack of capacity on that line kept many trains on the Salt Lake Route/Utah Central mainline. The economic downturn of 2008 gave UP the opportunity to finally divert much of the freight traffic on this route over to the Sunset Route via El Paso.

The UC continues to be a strategic link in Utah's freight railroad network on the UP, though rail traffic is much lower than it was at its peak just prior to the UP/SP merger in 1995-1996. A portion of UP's right-of-way along the east side of the Utah Central

mainline was sold to the Utah Transit Authority (UTA) to allow for the construction of a dedicated route for UTA's *FrontRunner* commuter trains which commenced operations between Salt Lake City and Ogden in 2008.

2.1.1.5 The Los Angeles and Salt Lake Railroad (LA&SL), known as the Salt Lake Route and later the South-Central District of the UP, today's UP Lyndyl and Caliente Subdivisions (Salt Lake City Southwest to Nevada state line via Milford)

The UP's Salt Lake Route mainline was one of the last major segments of the transcontinental railroad network built in the western United States. This route started out as a rural short line built south from Salt Lake City by the Church of Jesus Christ of Latter-day Saints to link farming communities established under the direction of Church President Brigham Young following the Mormon's arrival in Utah in 1847.

The construction of a railroad extending south from Salt Lake City commenced in 1871 with the line reaching Provo in 1873. This line was built by the Utah Southern Railroad, and in 1879 a new UP controlled company was organized under the name of the Utah Southern Railroad Extension. This new railroad continued building south from a connection with the original Utah Southern in 1879, reaching the Horn Silver Mine at the town of Frisco, near present-day Milford, Utah in 1880.

In 1881 the Utah Southern Railroad, the Utah Southern Railroad Extension, and the UC Railroad north of Salt Lake City were consolidated into a new UP controlled company under the name of the Utah Central Railway, which was administered by yet another UP subsidiary, the Oregon Short Line (OSL).

Los Angeles, California was a booming area in the 1880's, and interest in linking Southern California with the UP in Utah was growing. By 1900 Senator William A. Clark of Montana began acquiring railroad lines in Southern California, and in 1901 he and his associates incorporated the San Pedro, Los Angeles & Salt Lake Railroad (SPLA&SL) to build northeast to Utah. The logical connection for this new line was the UP's OSL controlled route into southwest Utah via Milford.

For several years' UP's Edward Harriman and Senator Clark struggled to gain the upper hand in building a rail line across the mountains and deserts of southern Nevada and into California. In 1903 an agreement was reached wherein both Harriman and the UP and Clark and the SPLA&SL would jointly own and control the new line, which allowed construction to begin in earnest. As a part of this agreement, the SPLA&SL purchased all UP (OSL) lines south of Salt Lake City.

A key part of this early 20th century railroad construction project was the establishment of a new, faster and more direct line connecting the route to southern Utah with Salt Lake City. This new line would bypass the congestion and slow trackage through Provo

and along the southern Wasatch Front population corridor, remaining west of the Oquirrh Mountain Range to the west of the Salt Lake Valley. Known as the Leamington Cutoff, this new line opened in 1905 between the old route at Lynndyl and downtown Salt Lake City.

The entire route was completed and put into service in 1905, with the last spike being driven at a point just west of the newly-established railroad town of Las Vegas, Nevada. The railroad was commonly known as the Salt Lake Route, and it maintained a separate identity from the rest of the UP system. In 1916 the name of Senator Clark's railroad was changed from San Pedro, Los Angeles & Salt Lake to Los Angeles & Salt Lake after San Pedro was annexed by the city of Los Angeles. In 1921 Senator Clark sold his remaining half interest in the LA&SL to UP, which quickly moved to fully absorb the route into its overall system. However, the line continued to be known as the Salt Lake Route, a name which endures into 2013.

Until the 1930's there was little on line business for the Salt Lake Route and most passengers and freight on the railroad were traveling to or from Southern California and Utah's Wasatch Front and points east. The building of Hoover Dam near Las Vegas in the 1930's, followed by an explosion in growth in Utah, southern Nevada and in particular Southern California during and after World War II made the Salt Lake Route a mainline of great value to Utah and the UP.

By the late 1960's the almost limitless growth of Southern California combined with rapidly increasing Asian import shipments through the expanding Ports of Los Angeles and Long Beach resulted in large numbers of priority intermodal freight movements on the Salt Lake Route, which by now was known officially as UP's South-Central District.

After deregulation in 1980, the UP itself began to grow rapidly as it took control of a number of railroads in the west and Midwest, which further increased rail freight business between the Midwest and Southern California via Utah. The Salt Lake Route was UP's only access to Southern California and its busy seaports. However, this would change with UP's acquisition of the SP in 1996.

SP operated the lowest grade route serving Southern California on its Los Angeles to El Paso Sunset Route. From 1996 to 2008 UP invested considerable capital in upgrading this route and expanding its capacity. The economic downturn that began in 2008 resulting in a drop in overall rail shipments, particularly imports from Asia, which when combined with increased capacity on the Sunset Route allowed UP to divert much of the freight on the Salt Lake Route over to the line via El Paso. Today, only those trains that need to operate through Utah use the Los Angeles to Salt Lake line with most of UP's Southern California Freight heading east and west via Texas.

Today's Salt Lake Route mainline includes both the Leamington Cutoff between downtown Salt Lake City and Lynndyl, as well as the original Provo Line between those two points over the original Utah Southern route through Provo and Nephi. From Lynndyl trains travel south across the Escalante Desert to the crew change point at Milford, then cross over into the canyon country of southern Nevada en route to another crew change at Las Vegas. From Las Vegas the line angles southwest across Southern California's Mojave Desert to a final crew change point at Yermo just east of Barstow, California.

In pre-SP merger days, UP's Yermo Yard, which had been enlarged in the early 1980's, served as an overflow facility for the railroad's East Los Angeles Yard, which was rapidly being taken over by intermodal shipments. Today, little freight work is done at Yermo since most trains are en route to or from either the Ports or the former SP West Colton classification yard near San Bernardino, California.

To reach the Los Angeles Basin from Utah, UP operates via trackage rights over BNSF for about 100 miles from Daggett near Barstow to Riverside near San Bernardino. A connection at West Colton, California allows UP trains to access the former SP West Colton Yard from the BNSF mainline. Trains bound for the Ports of Los Angeles and Long Beach use either the former SP Sunset Route or the original UP mainline from West Colton or Riverside respectively to a connection with the new Alameda Corridor rail line serving the port area.

The recent completion of the Colton crossing rail-grade separation project near San Bernardino has eliminated the most impactful bottleneck to UP trains on the Salt Lake Route. This \$93 million project grade separates BNSF's mainline from the UP Sunset Route.

Although relatively flat in Utah, the Salt Lake Route mainline must surmount several major grades in southern Nevada and Southern California. Previously mentioned Cajon Pass has grades ranging from 2.2 percent to as high as 3.0 percent, though most trains are downhill on the 3.0 percent section. Cima Hill in the Mojave Desert also has grades up to 2.2 percent. These grades, as well as the long climb to over 8,000 feet in Wyoming for trains routed via Utah were high on UP's list of reasons for focusing Southern California rail traffic on the low grade Sunset Route through El Paso.

The complex history of UP's Salt Lake Route mainline reflects how growth, development, mountainous terrain, and changing economic conditions can have a profound impact on rail operations along a particular line or across an entire region. Although still an important part of the overall UP, the Salt Lake Route mainline's strategic position is but a shadow of what it was prior to 1996 and 2008.

2.1.1.6 The Denver and Rio Grande Western (D&RGW), known as the Rio Grande, today's UP's Provo and Green River Subdivisions (Salt Lake City to the Colorado state line via Provo and Helper)

Originally constructed as a narrow-gauge railroad from Denver west to Salt Lake City, the D&RGW was completed near Green River in 1883. The major mainlines of the Rio Grande linking Colorado with Utah were converted to standard gauge by the end of 1890.

The Rio Grande's history is a complex amalgamation of various short line and regional railroads and the original Denver & Rio Grande that first build south from Denver in 1871. Several early short lines were built in Utah that eventually found their way into the Rio Grande system. Today's UP-owned Rio Grande mainline heads south from Salt Lake City to Provo, then southeast over 7,440 feet Soldier Summit in the Wasatch Mountains to Helper and beyond to Green River and points east in Colorado.

The line over Soldier Summit, which is shared with the Utah Railway, has the steepest mainline grades on Utah's rail network. Eastbound trains must climb a 2.3 percent grade to attain the top of Soldier Summit, while westbound trains face a 2.4 percent climb out of aptly-named Helper. Grades along the rest of the line in Utah are more modest, though 2.0 percent grades are encountered on either side of the Continental Divide in Colorado where the line reaches an altitude of 9,239 feet inside the 6.21 mile long Moffat Tunnel. The UP's former Rio Grande mainline is the highest mainline railroad in the United States.

The original Rio Grande built south from Denver to Pueblo, then west via the famous Royal Gorge and over 10,221 feet Tennessee Pass to reach the Colorado River and a route into Utah. In 1934 the 44-mile Dotsero Cutoff was completed linking the original D&RGW mainline with the existing Denver & Salt Lake Railroad that passed through the Moffat Tunnel but dead-ended in Craig, Colorado. This new and much more direct line quickly became the Rio Grande's primary route, although the Tennessee Pass/Royal Gorge Line continued to function until closed by the UP in 1997.

In the 1960's the mostly single track Rio Grande adopted the Short and Fast concept for running freight trains in order to better compete with the relatively flat, double track mainlines of the UP to the north in Wyoming, and the Santa Fe (BNSF today) to the south across Arizona and New Mexico. Most Rio Grande freight was forwarded beyond Salt Lake City by the WP, though two freights per day in each direction connected with the SP in Ogden. The SP connection at Ogden was served by an extension of the Rio Grande mainline until that line was closed and Rio Grande's trains began running north of Salt Lake City on UP's Utah Central line in 1985.

The UP takeover of WP in 1982 put both the Rio Grande and SP in a difficult position as both had lost their primary connections in Utah. This resulted in both lines restructuring their operations toward the Ogden/Salt Lake City connection between the two railroads, and ultimately a merger of the two in 1988. From 1988 until the UP takeover in 1996, the Rio Grande mainline was a busy route hosting a wide variety of manifest freight trains, new automobile trains, priority intermodal trains as well as unit coal trains that originated along the line in Utah and Colorado. It should be noted that full-height (102 inch containers) double stack operations cannot be conducted along this route due to height limitations on the line's many tunnels.

When UP took control of the SP/Rio Grande in 1996, all of the transcontinental freight on the Rio Grande line was rerouted from the mountainous Rio Grande to the fast, and less mountainous UP Overland Route across Wyoming. Today, the Rio Grande line sees a daily UP manifest freight in each direction to serve on-line shippers, the previously mentioned coal trains from local mines, and BNSF Railway mainline and local trackage rights trains between Denver and Provo. Utah Railway trains and Amtrak's daily *California Zephyr* also use the scenic Rio Grande line.

It should be noted that the Salt Lake City to Provo section of the former Rio Grande line does see several automobile and manifest freights each day which are en route to and from Southern California via the Salt Lake Route and Provo lines to access the manifest freight and new automobile terminals at Salt Lake City's Roper Yard. These Salt Lake Route trains use the former Rio Grande line between Salt Lake City and Provo. Utah short lines Utah Railway and Savage Bingham & Garfield also operate on portions of the former Rio Grande line west of Helper and Midvale, Utah respectively.

UP sold a portion of the Rio Grande line right-of-way to UTA for construction of a dedicated line adjacent to the UP for UTA's *FrontRunner* commuter train service between Salt Lake City and Provo. UTA's *FrontRunner* commuter rail operations commenced on the Salt Lake to Provo line in December 2012.

2.1.1.7 The Western Pacific (WP), known as the Feather River Route, today's UP Shafter Subdivision (Salt Lake City to Wendover on the Nevada state line)

The WP was the last major railroad to come to Utah, and the final major segment of America's transcontinental railroad network to be completed. Built between 1903 and 1909 by George Gould, the son of railroad magnate Jay Gould, who also owned the Rio Grande system, the WP was intended as a continuation of the Rio Grande to California. Although financial troubles soon separated the WP and D&RGW, they remained primary connections at Salt Lake City until the UP took control of the WP in 1982.

Known as the Feather River Route, for its scenic line through the Feather River Canyon in the northern Sierra Nevada Mountains of California, the WP built directly west from its

connection with the Rio Grande in Salt Lake City. The WP passed along the south side of the Great Salt Lake and directly across the Bonneville Salt Flats on the Great Salt Lake Desert. The first crew change terminal was established at Wendover on the Utah/Nevada state line.

West of Wendover the single track WP climbed over or tunneled through several Great Basin mountain ranges, all the while maintaining the maximum 1.0 percent grade stipulated in the railroad's charter. At Wells, the WP began its run parallel to the SP's Overland Route west to Elko and Winnemucca, Nevada through the Humboldt River Valley.

Beginning with Federal control of America's railroads under the United States Railway Administration (USRA) in World War One, the SP and WP began operating under a paired track agreement between Wells and Winnemucca with all eastbound trains of both railroads using the WP line and all westbounds using the SP route. This arrangement worked so well that both railroads made it a permanent part of their operations across the Great Basin, which continued until UP took over both WP and SP in 1982 and 1996 respectively.

West of Winnemucca the WP headed out across the Black Rock and Smoke Creek Deserts to Beckworth Pass and the Feather River Canyon in California's Sierra Nevada. Exiting the mountains at Oroville, California, the WP traveled on a north/south alignment down the Central Valley through Marysville and Sacramento to Stockton where it turned west to cross the Coast Range on Altamont Pass to a terminus on San Francisco Bay at Oakland, California.

Today, the former WP line in Utah is a secondary mainline used by a handful of UP manifest trains and unit grain trains of animal feed en route to the Central Valley, BNSF mainline and local trackage rights trains between Denver and Stockton, along with Amtrak's daily *California Zephyr*. Most freight en route to and from northern California or the Port of Oakland uses the former SP Overland Route across Donner Pass and the Great Salt Lake causeway via Ogden rather than the former WP across the Salt Flats into Salt Lake City. Most of the trains that do use the WP line in Utah continue west to California via the former SP at Winnemucca crossing the Sierra on Donner Pass including BNSF and Amtrak trains.

2.1.1.8 The Utah Northern Railroad (UN), today UP's Ogden Subdivision, (Ogden to the Idaho state line via Brigham City and the Cache Valley)

Of all the main railroad lines serving Utah, UP's former UN line from Ogden to Idaho sees the fewest train movements each day. Construction on this secondary line began at a junction with the original CP portion of the transcontinental railroad at Brigham City in 1871. This was one of several feeder lines built by the Church of Jesus Christ of

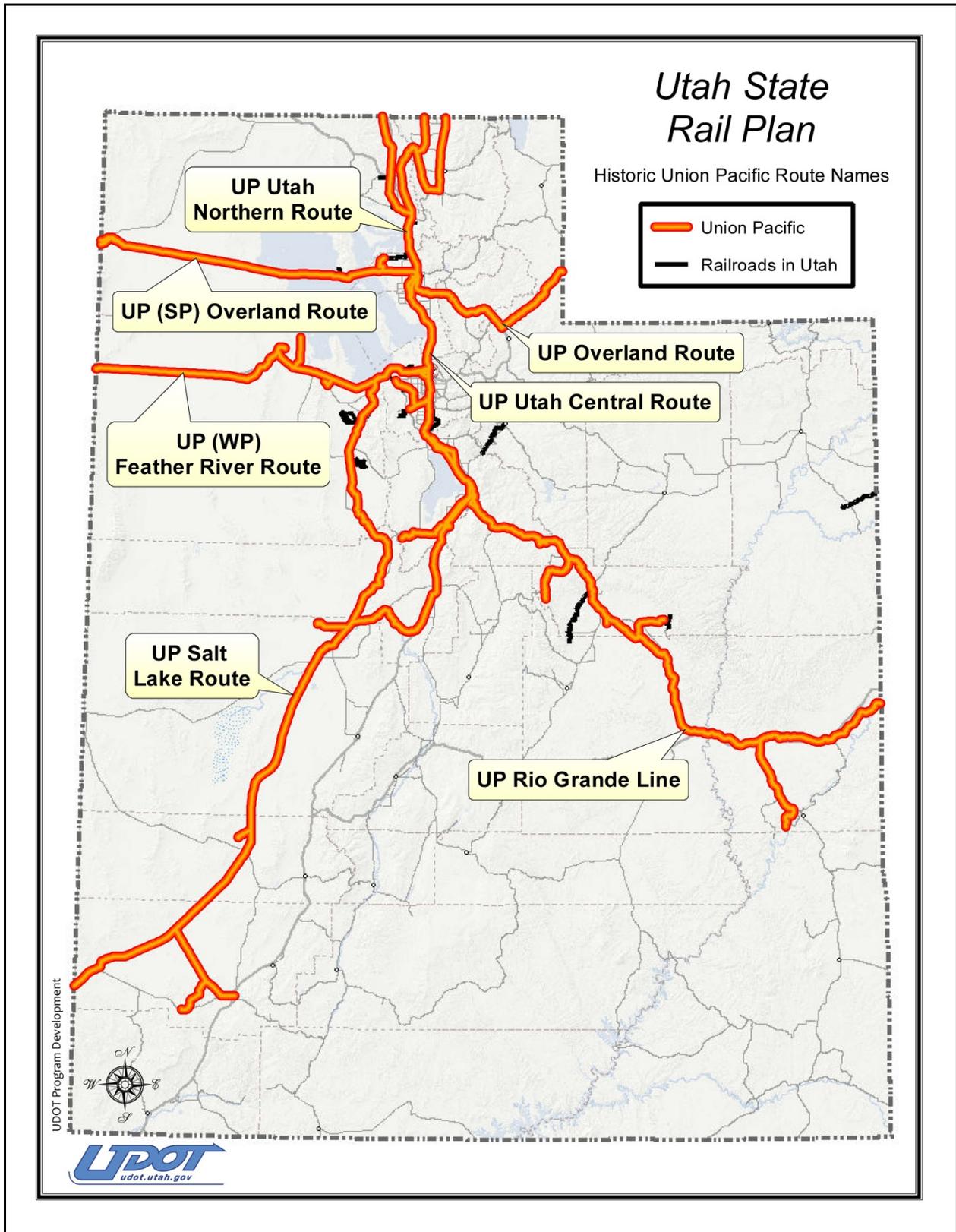
Latter-day Saints following the completion of America's first transcontinental railroad at Promontory, Utah.

As originally constructed, the UN passed through Logan, Utah, which was reached in 1873, on the east side of the Cache Valley in northern Utah. This route was reduced to a stub end branch when a new line through the valley with fewer grades was placed in service later in 1890 when the line was converted from narrow to standard gauge. The UN continued north, reaching the Idaho state line at Franklin in 1874. UP interests took control of the UN in 1878, renaming it the Utah & Northern (U&N) and continuing construction north into Idaho.

The U&N reached Pocatello in 1878 and Eagle Rock, today known as Idaho Falls, in 1879. The U&N ultimately arrived in the mining town of Butte, Montana in 1881, having constructed 466 miles of narrow gauge railroad from Utah. As already mentioned the line was acquired by the UP and ultimately became a part of UP's OSL subsidiary and was converted to standard gauge.

Today this single track line provides a link between Utah and the UP's northwestern mainline at McCammon, Idaho, southeast of Pocatello. This line is Utah's link with the Pacific Northwest and the seaports at Portland, Oregon, Tacoma and Seattle, Washington although intermodal shipments on this line are rare. A daily manifest train links the large UP hump yard at Hinkle, Oregon (near Hermiston) with the Roper Yard in Salt Lake City, and various locals also use portions of the line. The UN line also provides access to UP's branch lines to Malad, Idaho via Tremonton, Utah as well as the Cache Valley Branch, which was the original UN mainline through Logan to Preston, Idaho.

Figure 15: Historic Union Pacific Route Names



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2.1.2 Amtrak (National Railroad Passenger Corporation)

Table 3: Amtrak Information

Federal Railroad Administration Abbreviation:	ATK
Surface Transportation Board Classification:	Class I Railroad
Category:	Passenger
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	368
Number of Utah Employees:	51 (FY2013)
Total Utah Employee Earnings:	\$4,115,485 (FY2013)
Utah Ridership:	55,283 (FY2013)
Amtrak Purchase of Goods and Services in Utah	\$9,039,874 (FY 2013)
Signal Type:	Centralized Traffic Control (CTC)

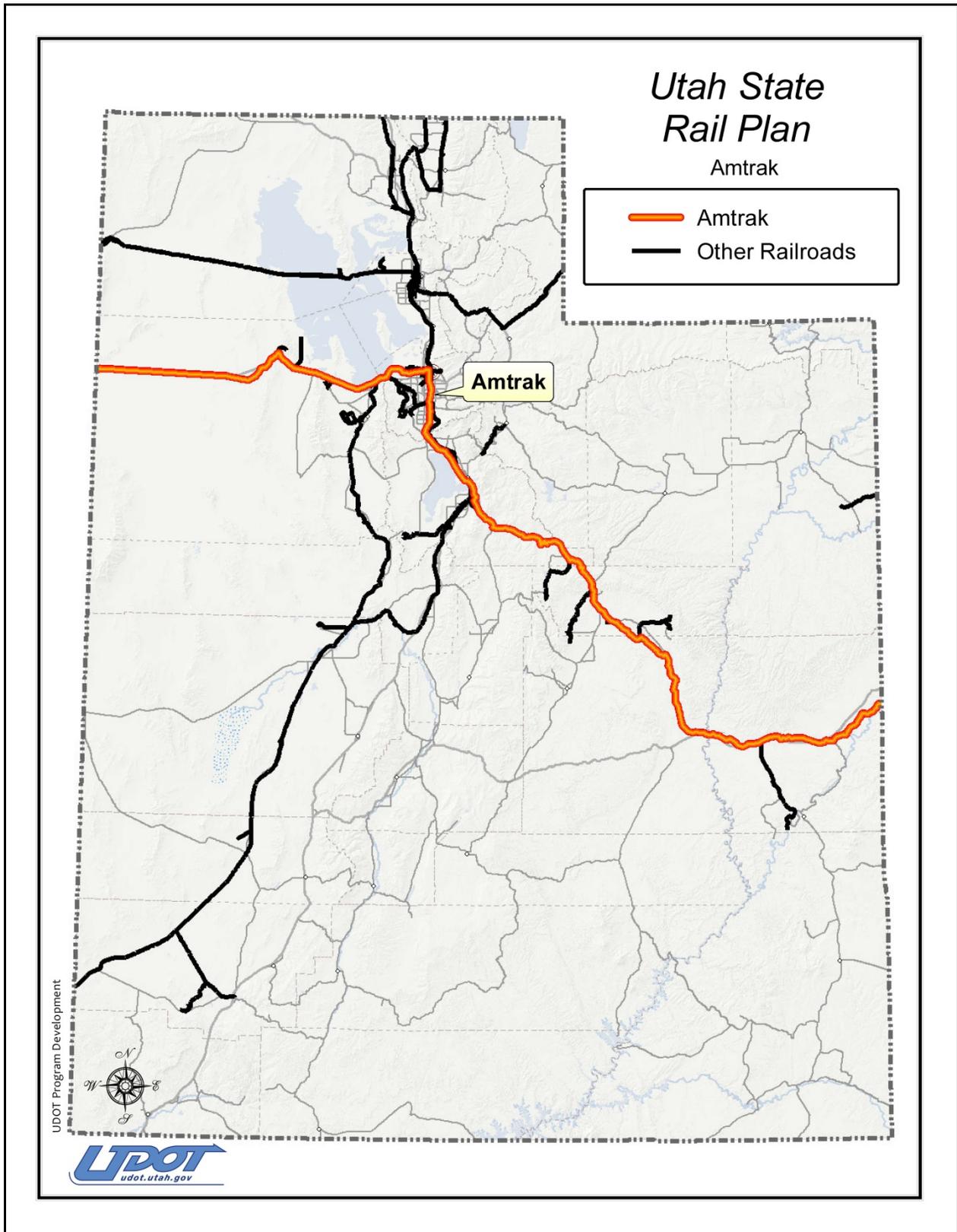
Sources: Federal Railroad Administration, 2013. Amtrak Government Affairs, Fiscal Year 2012.

The National Railroad Passenger Corporation, known as Amtrak, is a quasi-governmental corporation that took over most of America’s intercity passenger trains from the private railroad companies on May 1, 1971. Amtrak’s formation was the result of the privately-operated passenger trains becoming uneconomical in the face of massive government investment in highways, airports, and other competing modes after World War II. Prior to May 11, 1997, Salt Lake City/Ogden was an important hub for three Amtrak long-distance passenger routes. Today, only Amtrak’s Chicago to San Francisco Bay Area *California Zephyr* continues to serve Utah with stops in Green River, Helper, Provo and Salt Lake City.



Photo by Daniel B. Kuhn

Figure 16: Amtrak



2.1.3 BNSF Railway

Table 4: BNSF Railway Information

Federal Railroad Administration Abbreviation:	BNSF
Surface Transportation Board Classification:	Class I Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	433
Number of Utah Employees:	2
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	See UP Signal Types

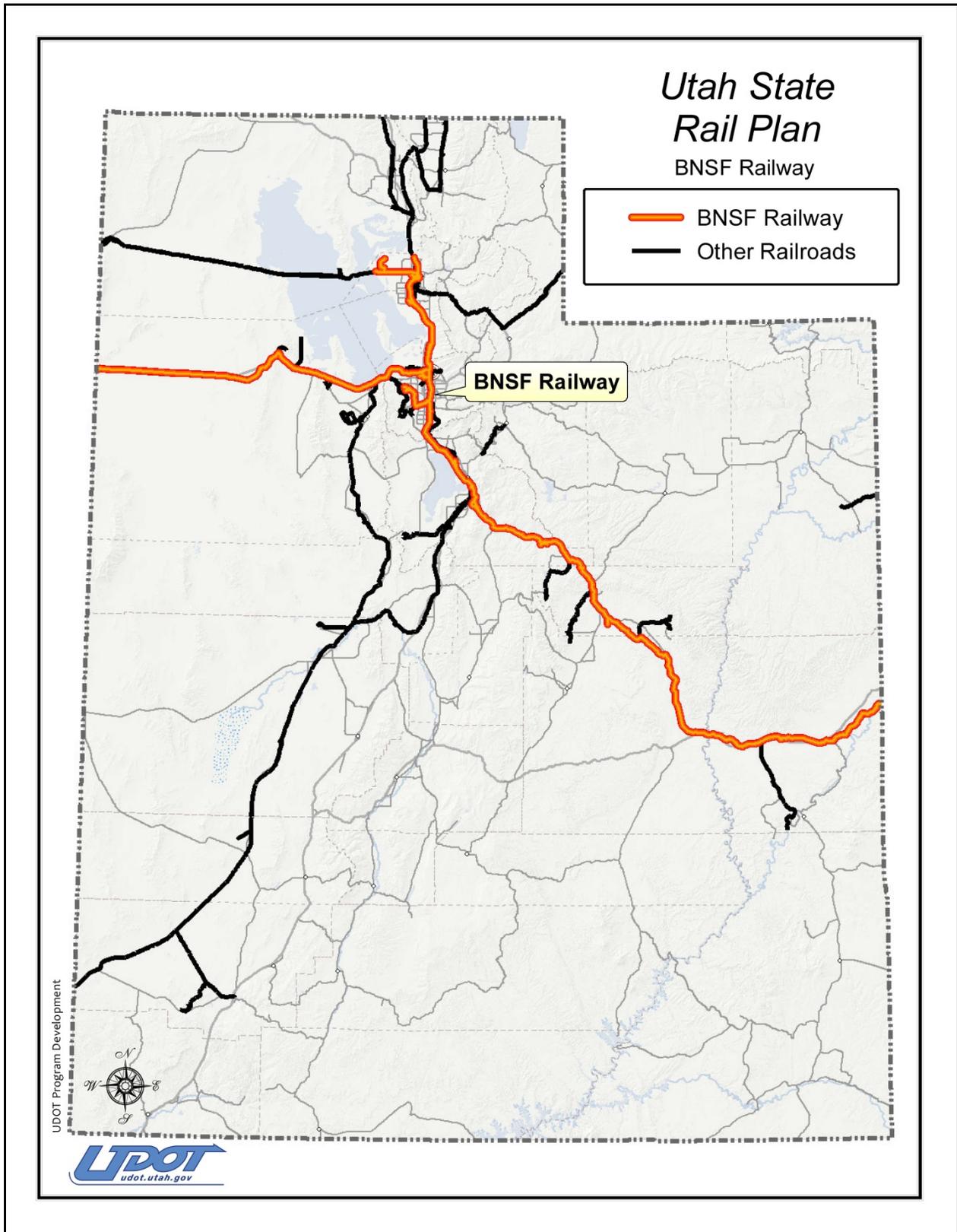
Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

BNSF Railway, originally known as the Burlington Northern and Santa Fe Railway Company, serves the state of Utah via trackage rights over a route that links Denver with Stockton and throughout the Provo, Salt Lake City and Ogden areas. BNSF's trackage rights over parts of the UP and SP networks were obtained in 1995, when the STB granted BNSF the ability to serve customers in Utah via trackage rights in order to maintain freight competition. BNSF, one of America's leading freight railroads, operates in 28 states and two Canadian provinces. In Utah, BNSF currently interchanges with four short line railroads that provide rail served connections to additional customers not located along the former UP and SP lines, connecting over 400 miles of Utah rail lines to BNSF's extensive network.



Photo by Vern Keeslar

Figure 17: BNSF Railway



2.1.4 Comstock Mountain Lion Railroad

Table 5: Comstock Mountain Lion Railroad Information

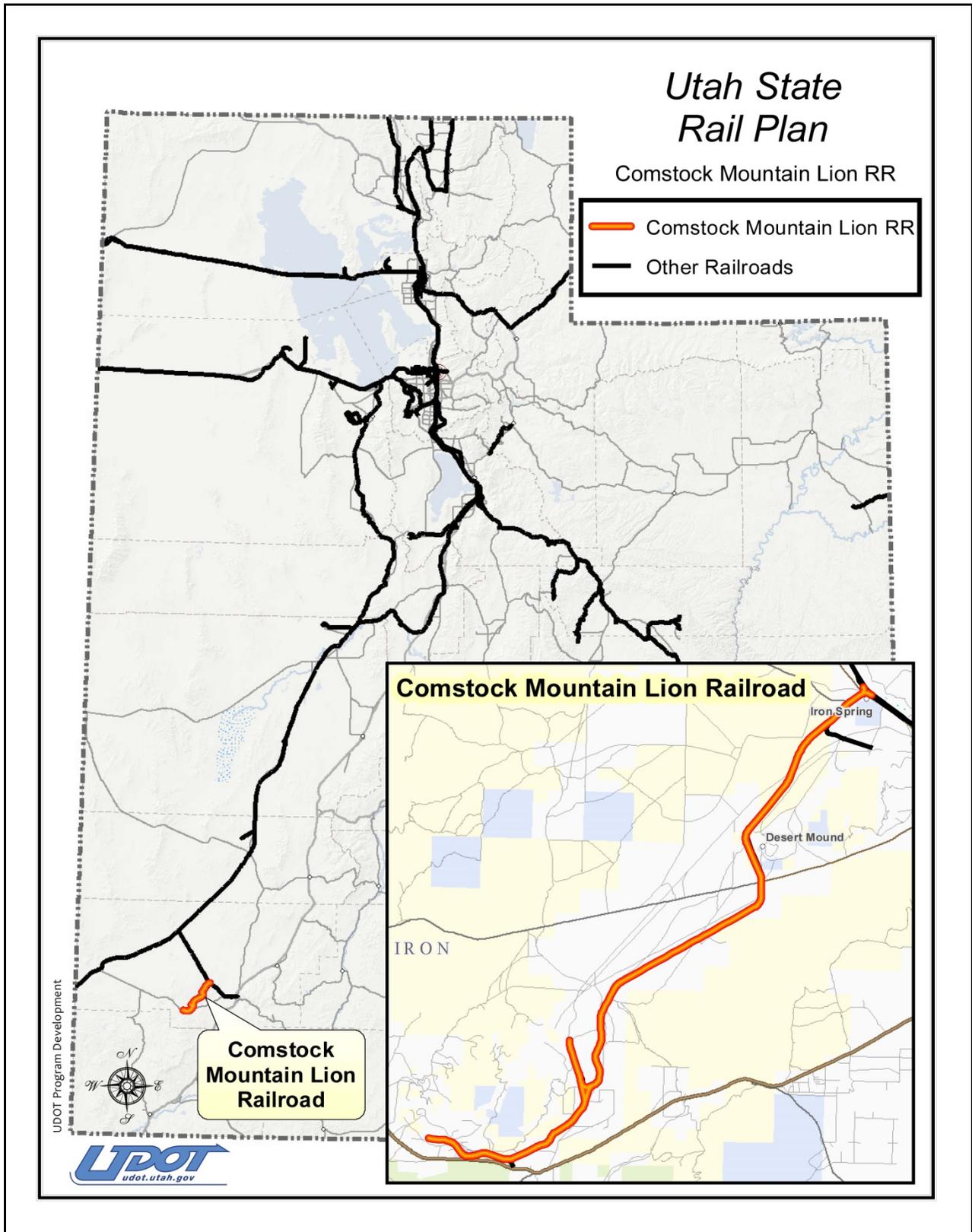
Federal Railroad Administration Abbreviation:	CMLR
Surface Transportation Board Classification:	Class III Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	15
Number of Utah Employees:	12
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	Track Warrant Control (TWC)

Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Comstock Mountain Lion Railroad (CMLR) is a 15-mile long short line that began operations in 2006 linking iron ore mines near Cedar City in southwestern Utah with the UP. The railroad is owned and operated by CML Metals Corporation, which exports iron ore to China via the Port of Stockton, California. Due to falling iron ore export markets, operations of the CMLR have suspended as of October 18, 2014. The railroad linking UP with the mines was originally built as a UP branch line in the 1920's to serve the area's National Parks and iron ore deposits. The photo below shows UP power at Iron Springs waiting for the CMLR iron ore train.



Figure 18: Comstock Mountain Lion Railroad



2.1.5 Deseret Power Railway

Table 6: Deseret Power Railway Information

Federal Railroad Administration Abbreviation:	DPRW
Surface Transportation Board Classification:	Class III Railroad
Category:	Freight
National Rail System Connection:	No
Number of Rail Miles Operated in Utah:	17
Number of Utah Employees:	2
Total Utah Employee Earnings:	\$120,000
Taxes Paid to Utah:	\$15,400
Signal Type:	None

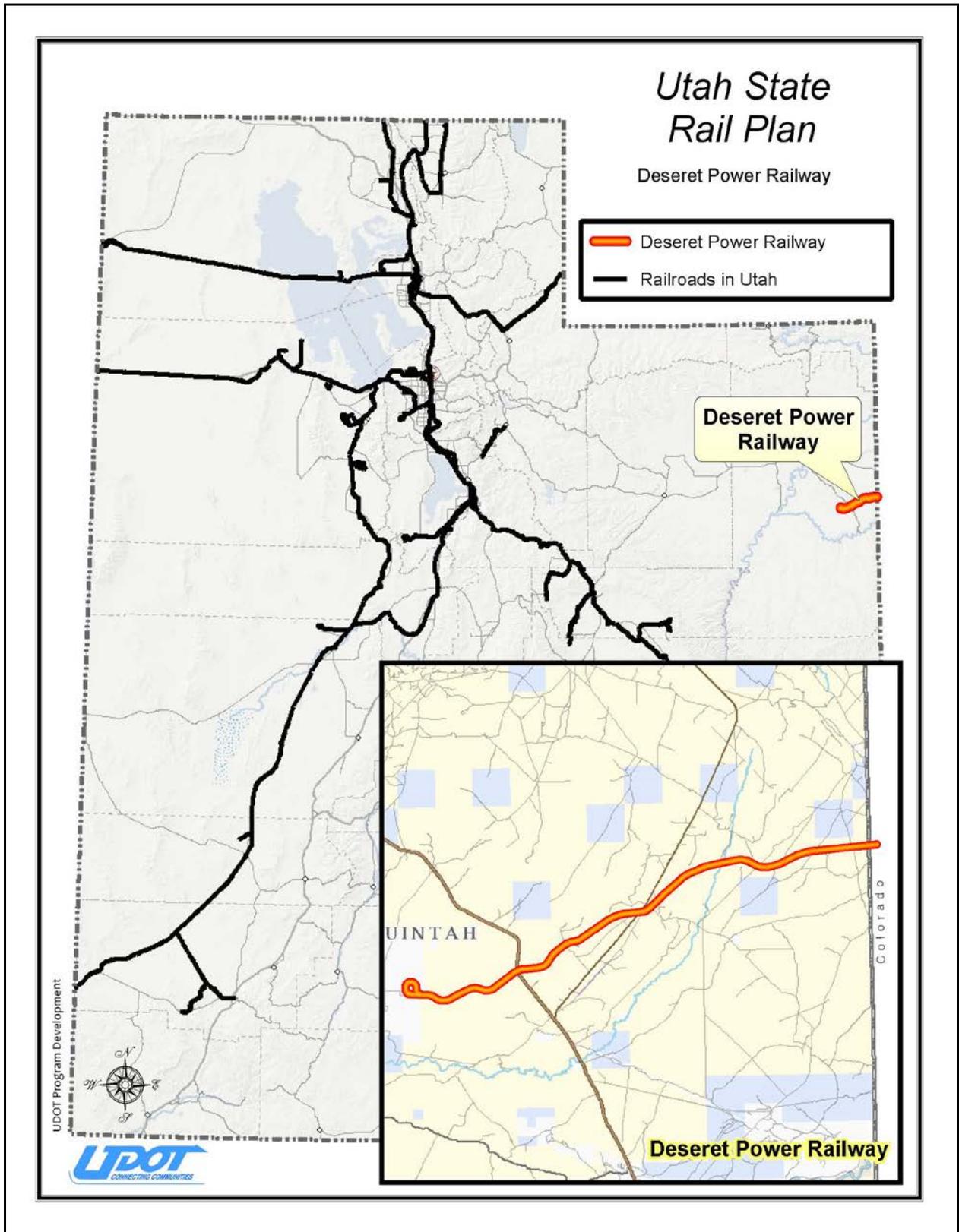
Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Deseret Power Railway (DPRW) is a 33-mile long coal hauling line that is isolated from the rest of Utah’s and America’s railroad network. Located in northeastern Utah and northwestern Colorado, the DPRW was originally known as the Deseret Western Railway when it commenced operations in 1983. Deseret Power hauls coal from the Deserado Mine northeast of Rangely, Colorado to the Deseret Electric Power Cooperative steam power plant near Bonanza, Utah. Deseret Power Railway is an electric powered operation and all locomotives and rolling stock used on the line had to be trucked in 90 miles from the nearest mainline railroad.



Deseret Power Railway Photo

Figure 19: Deseret Power Railway



2.1.6 Heber Valley Railroad

Table 7: Heber Valley Railroad Information

Federal Railroad Administration Abbreviation:	HVRX
Surface Transportation Board Classification:	Class III Railroad
Category:	Passenger
National Rail System Connection:	No
Number of Rail Miles Operated in Utah:	16
Number of Utah Employees:	Not Available
Total Utah Employee Earnings:	Not Available
Utah Ridership:	Not Available
Signal Type:	None

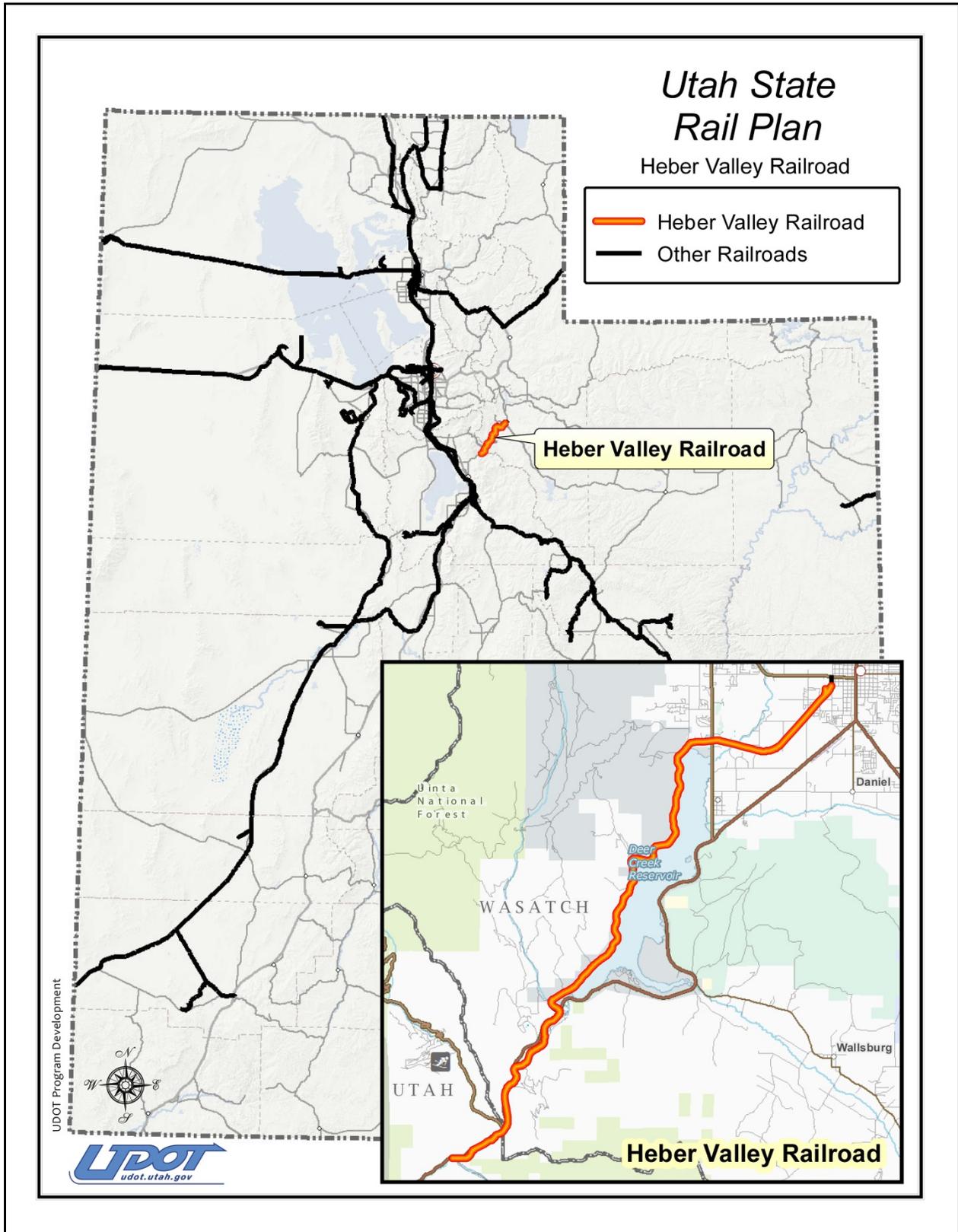
Sources: Federal Railroad Administration, 2013.

The Heber Valley Railroad (HVRX) was originally built in 1899 as a branch of the Denver & Rio Grande Western Railroad, who abandoned the line in 1967. In 1970 the upper end of the line was reopened as the “Heber Creeper” tourist railroad, and was given its present name in the early 1990’s. Operating both steam and diesel-electric locomotives and historic passenger cars, the HVRX played a role in the 2002 Salt Lake Winter Olympics and has appeared in more than 20 motion pictures. HVRX no longer has a connection to the mainline rail network in Utah with equipment having to be trucked-in. The HVRX is 16 miles long and operates from Heber City to Vivian Park in Provo Canyon in the nearby Wasatch Mountains.



Heber Valley Railroad Photo

Figure 20: Heber Valley Railroad



2.1.7 Kennecott Utah Copper LLC

Table 8: Kennecott Utah Copper LLC Information

Federal Railroad Administration Abbreviation:	None
Surface Transportation Board Classification:	Class III Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	23
Number of Utah Employees:	Not Available
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	None

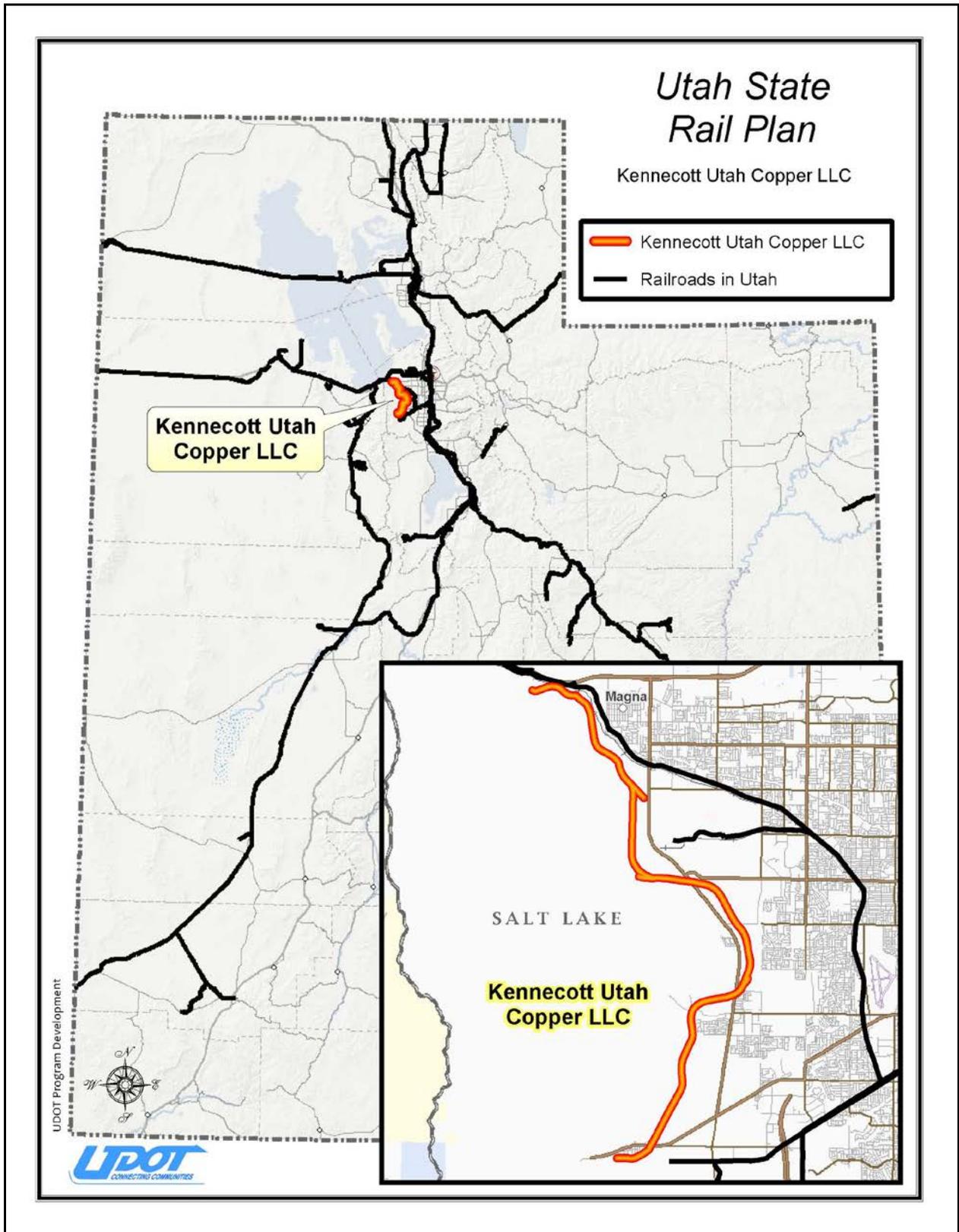
Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Kennecott Utah Copper LLC (KCC) encompasses the remaining active rail operations of the once vast rail network developed to serve Kennecott Utah Copper Corporation, a division of Rio Tinto Group, with mining, smelting and refining operations along the east side of the Oquirrh Mountains southwest of Salt Lake City. Kennecott’s Bingham Canyon Mine is the largest open pit mine in the world, although heavy haul trucks and conveyor systems have replaced trains in removing ore from the mine and transporting it to the smelter. Kennecott’s current rail operations are focused on the smelter adjacent to the south end of the Great Salt Lake, where Kennecott is served by UP and has access to BNSF through its agent Utah Railway.



Photo by Vern Keeslar

Figure 21: Kennecott Utah Copper LLC



2.1.8 Salt Lake City Southern Railroad

Table 9: Salt Lake City Southern Railroad Information

Federal Railroad Administration Abbreviation:	SL
Surface Transportation Board Classification:	Switching and Terminal Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	24
Number of Utah Employees:	Not Available
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	See UTA Signal Types

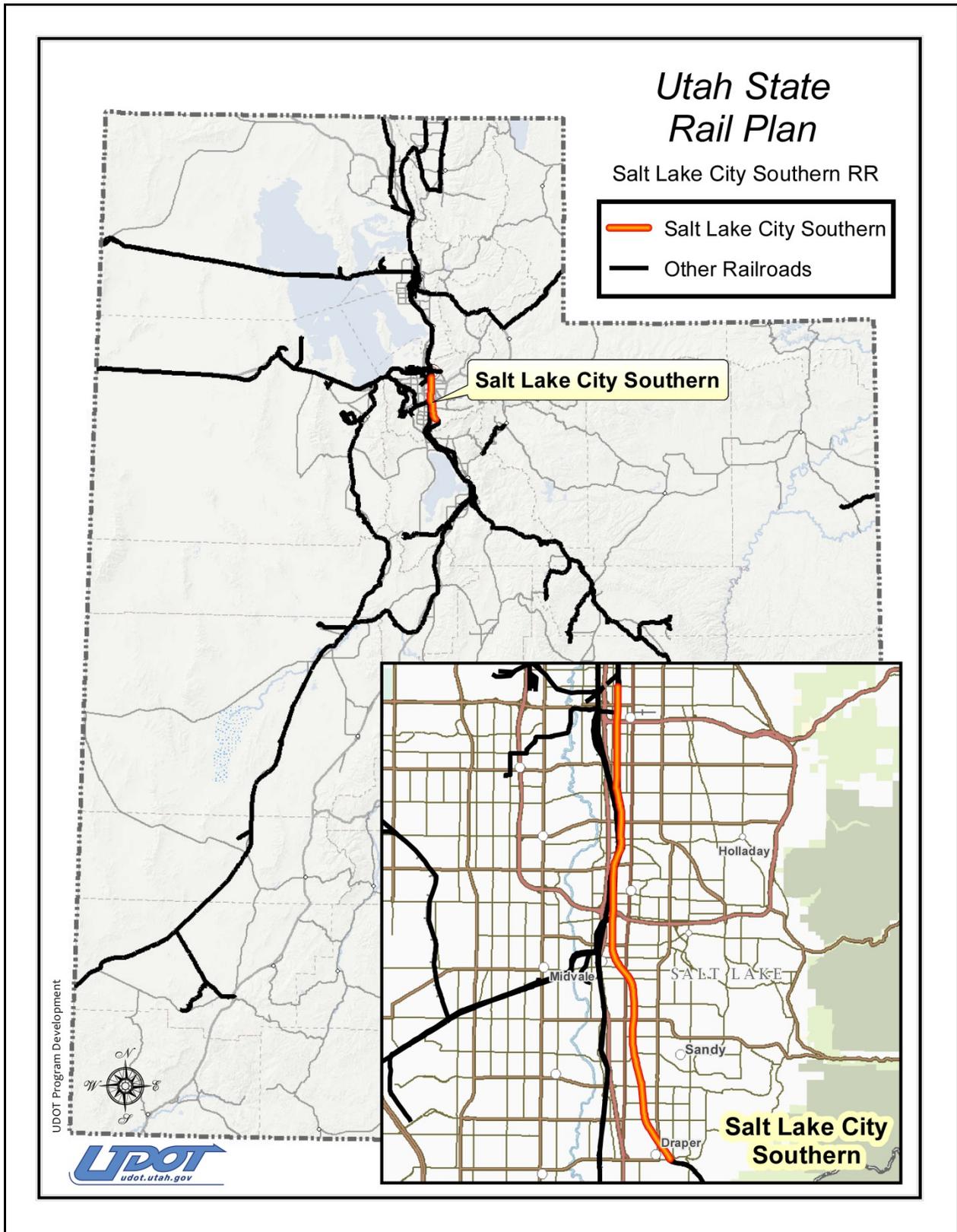
Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Salt Lake City Southern (SL) Railroad began freight operations in 1993 as a RailTex subsidiary and is today owned and operated by Genesee & Wyoming, Inc. SL operates over most of the 25 miles of former UP Provo Subdivision line that was sold to UTA in 1993. UTA began light rail transit operations over this route in 1999, with freight service restricted to between 12:00 a.m. and 5 a.m. when light rail vehicles are not operating.



Photo by Vern Keeslar

Figure 22: Salt Lake City Southern Railroad



2.1.9 Salt Lake, Garfield and Western Railway

Table 10: Salt Lake, Garfield and Western Railway Information

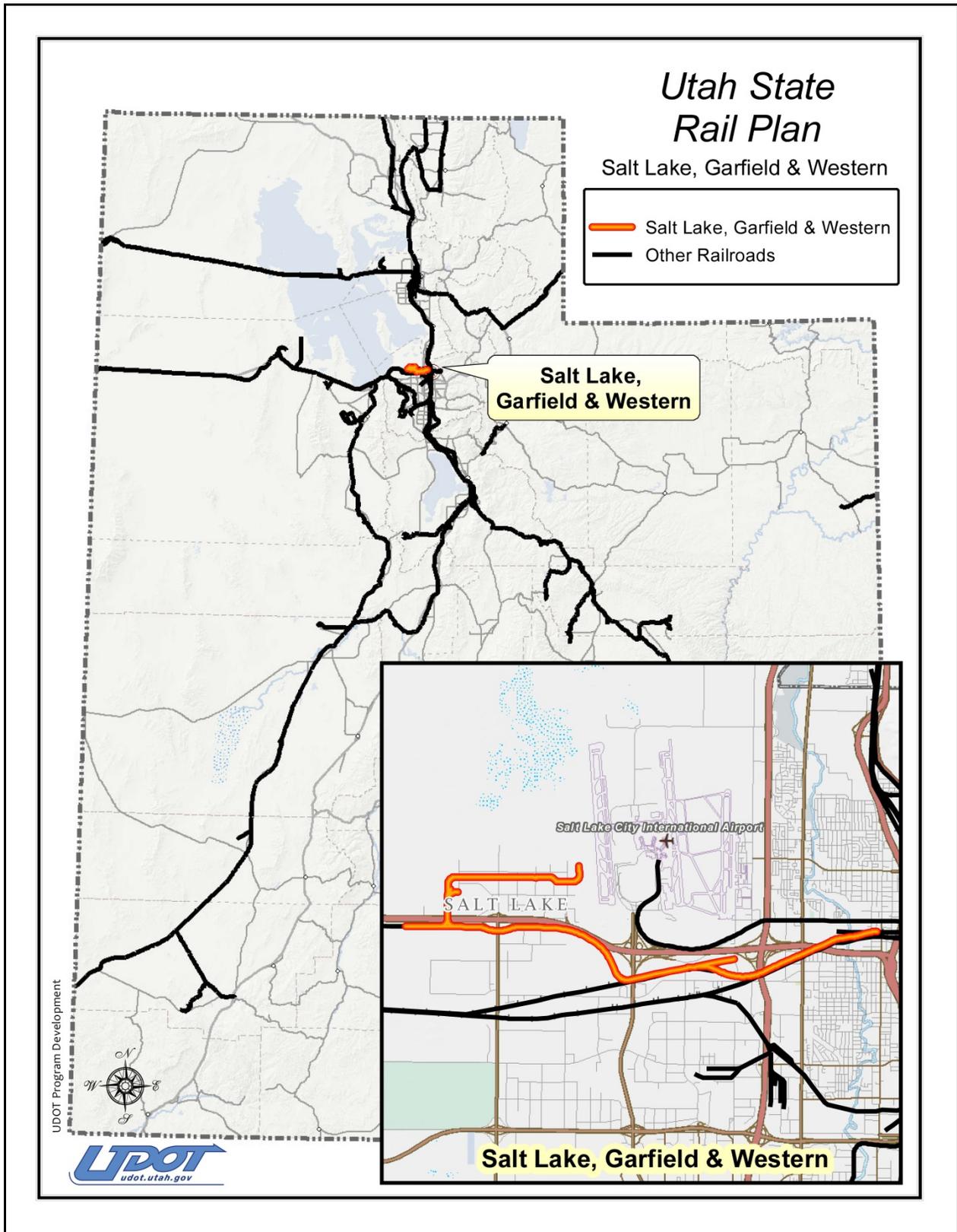
Federal Railroad Administration Abbreviation:	SLGW
Surface Transportation Board Classification:	Class III Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	12
Number of Utah Employees:	2
Total Utah Employee Earnings:	\$92,883
Taxes Paid to Utah:	\$45,292
Signal Type:	None

Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Salt Lake, Garfield & Western (SLGW) Railway dates back to 1891 when it served resorts at the south end of the Great Salt Lake. Today the SLGW provides freight service to industries and warehouses west of downtown Salt Lake City and at the International Center business and warehouse area near the Salt Lake City International Airport. The SLGW owns its 12-mile line and connects with the UP and BNSF in Salt Lake City.



Figure 23: Salt Lake, Garfield and Western Railway



2.1.10 Savage, Bingham and Garfield Railroad

Table 11: Savage, Bingham and Garfield Railroad Information

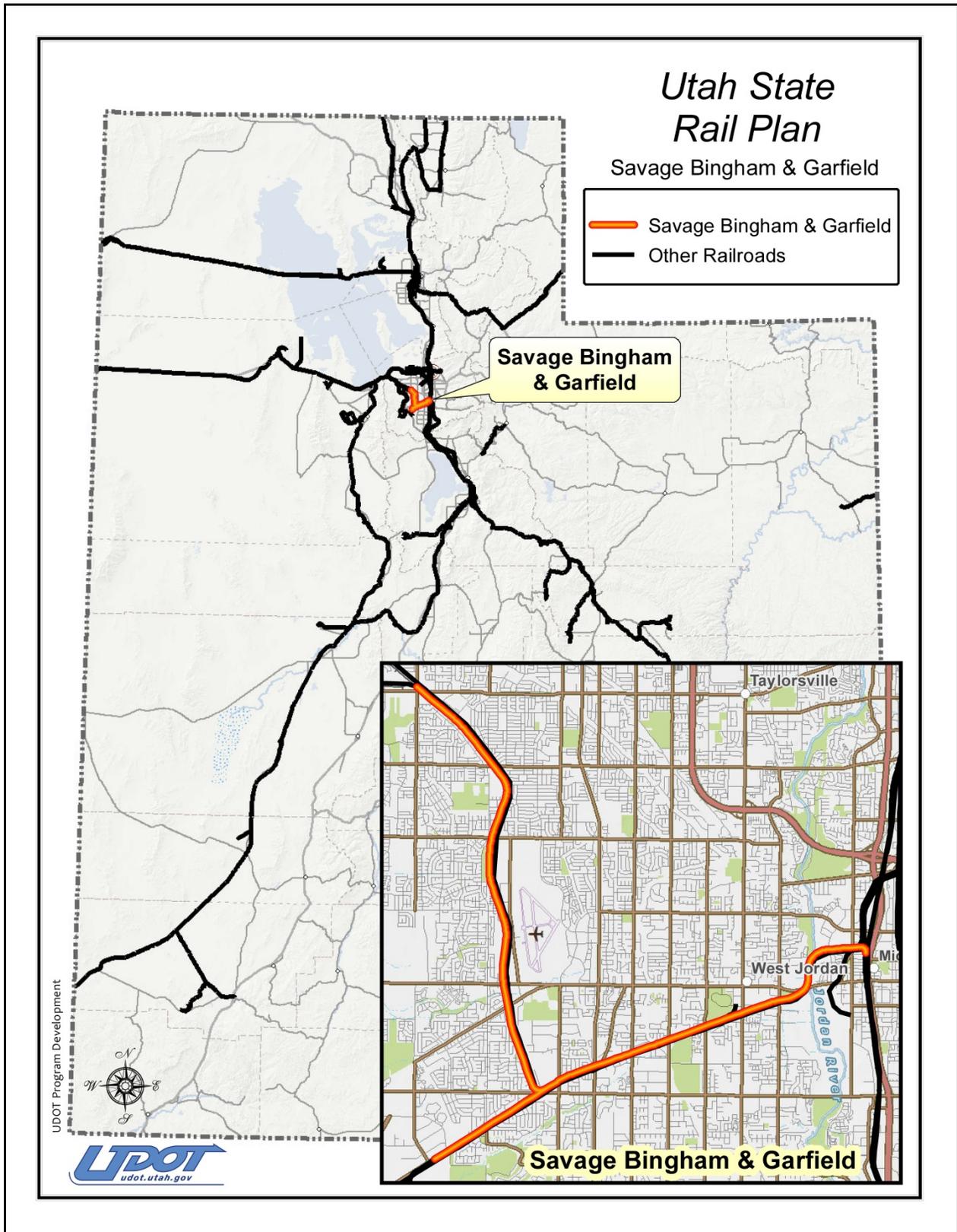
Federal Railroad Administration Abbreviation:	SBG
Surface Transportation Board Classification:	Switching and Terminal Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	21
Number of Utah Employees:	Not Available
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	See UTA Signal Types (None past UTA lines)

Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Savage, Bingham & Garfield Railroad (SBG) commenced freight operations in 2007 over portions of the UP’s former D&RGW Bingham and Garfield branches on the southwest side of the Salt Lake Valley. Railroad operations are centered at the former D&RGW Midvale Yard, which is today primarily a BNSF/Utah Railway facility. A portion of SBG’s operations are limited to between the hours of 12:00 a.m. and 5:00 a.m. due to UTA’s light rail operations. Savage, Bingham & Garfield handles interstate freight to and from both UP and BNSF Railway.



Figure 24: Savage, Bingham and Garfield Railroad



2.1.11 Union Pacific Railroad

Table 12: Union Pacific Railroad Information

Federal Railroad Administration Abbreviation:	UP
Surface Transportation Board Classification:	Class I Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	1,249
Number of Utah Employees:	1,400
Total Utah Employee Earnings:	\$121,800,000
Taxes Paid to Utah:	Not Available
Signal Type:	CTC, ABS, TWC, YL, CTC/ACS, ABS/ACS

Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Union Pacific (UP) Railroad is the dominate rail carrier in Utah, owning and operating 1,249 of the 1,343 freight railroad miles in the state. The UP first arrived in Utah while building the eastern segment of America’s first transcontinental railroad, the completion of which was marked by the driving of the famous Golden Spike at Promontory on May 10, 1869. Post-deregulation (1980) mergers allowed UP to take control of all Class I rail mileage in Utah by 1996. Today, UP is America’s largest railroad with 31,900 miles of track in 23 states, and Utah serves as a vital crossroads for six UP routes. UP employs nearly 1,400 in Utah, and has made capital investments in the state between 2007 and 2012 of more than \$290 million.

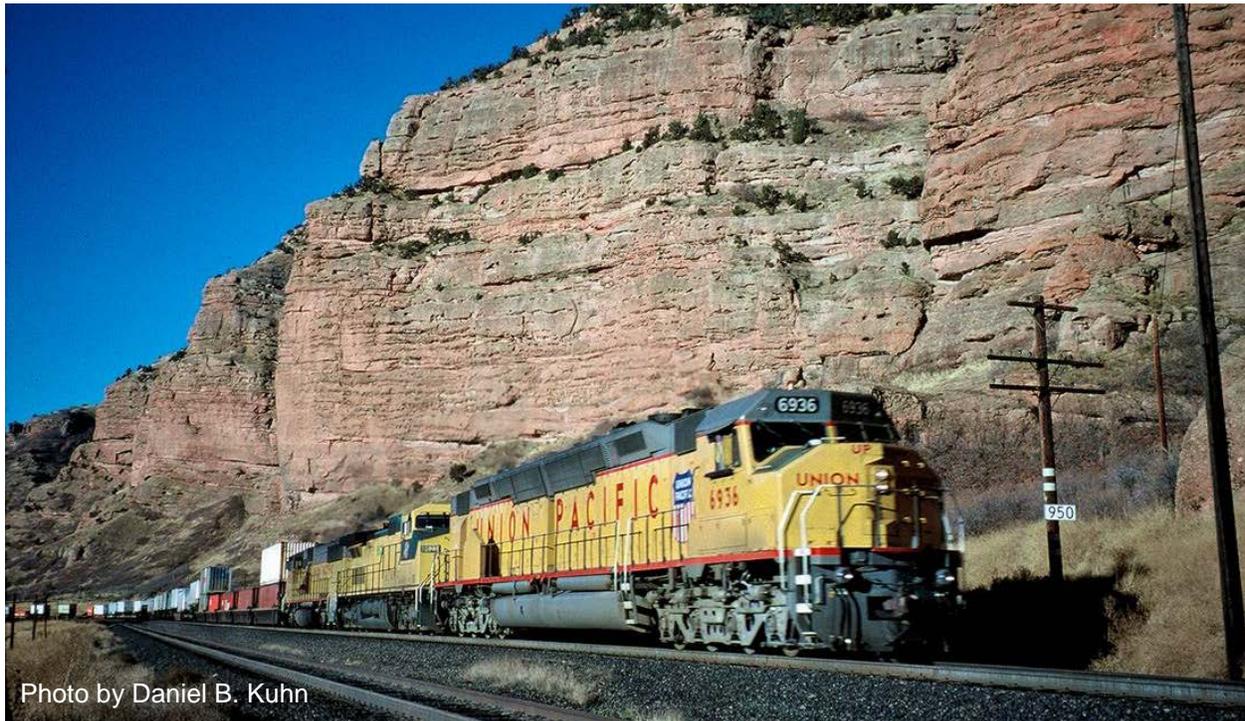
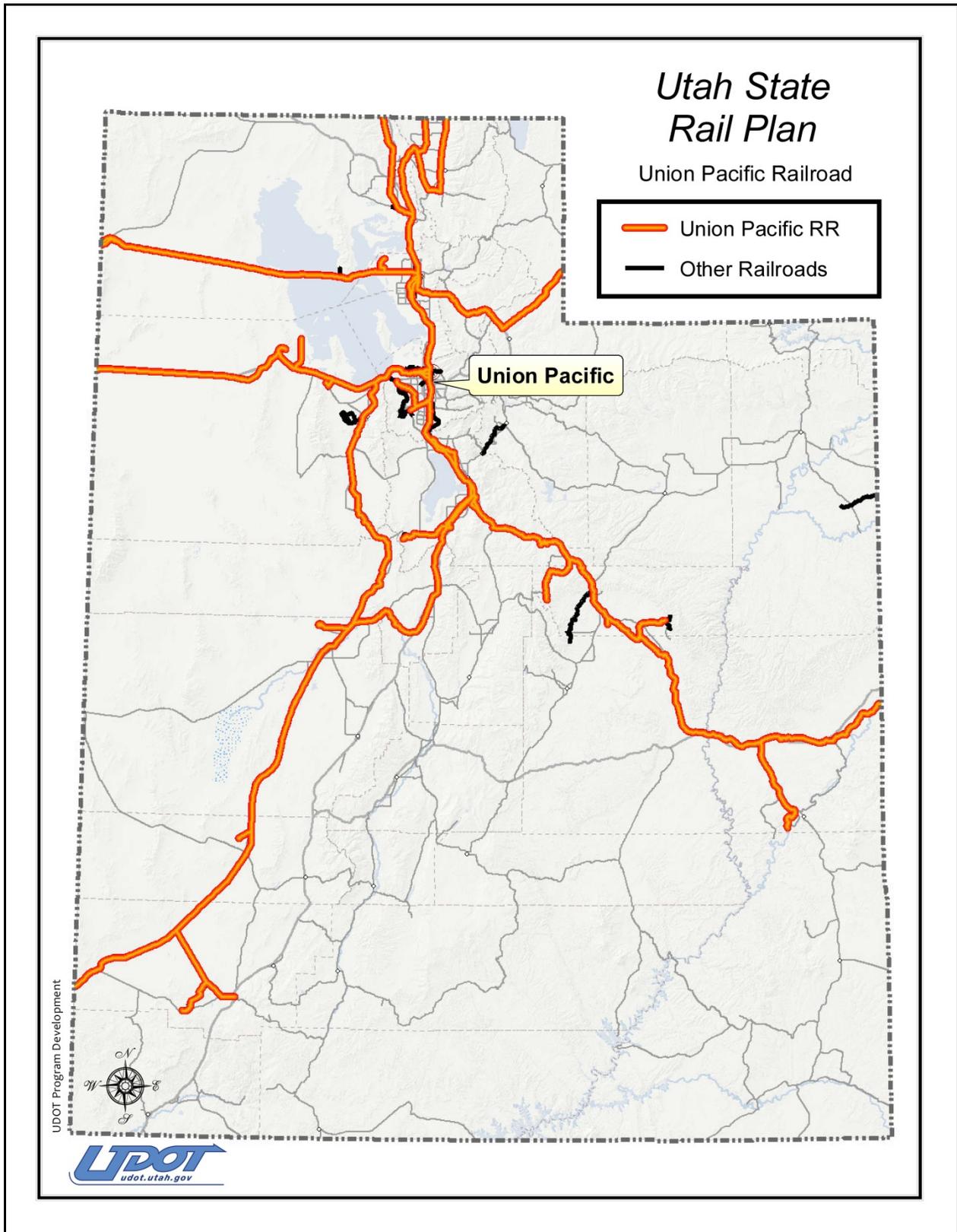


Photo by Daniel B. Kuhn

Figure 25: Union Pacific Railroad



2.1.12 Utah Central Railway

Table 13: Utah Central Railway Information

Federal Railroad Administration Abbreviation:	UCRY
Surface Transportation Board Classification:	Class III Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	34
Number of Utah Employees:	Not Available
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	Not Available

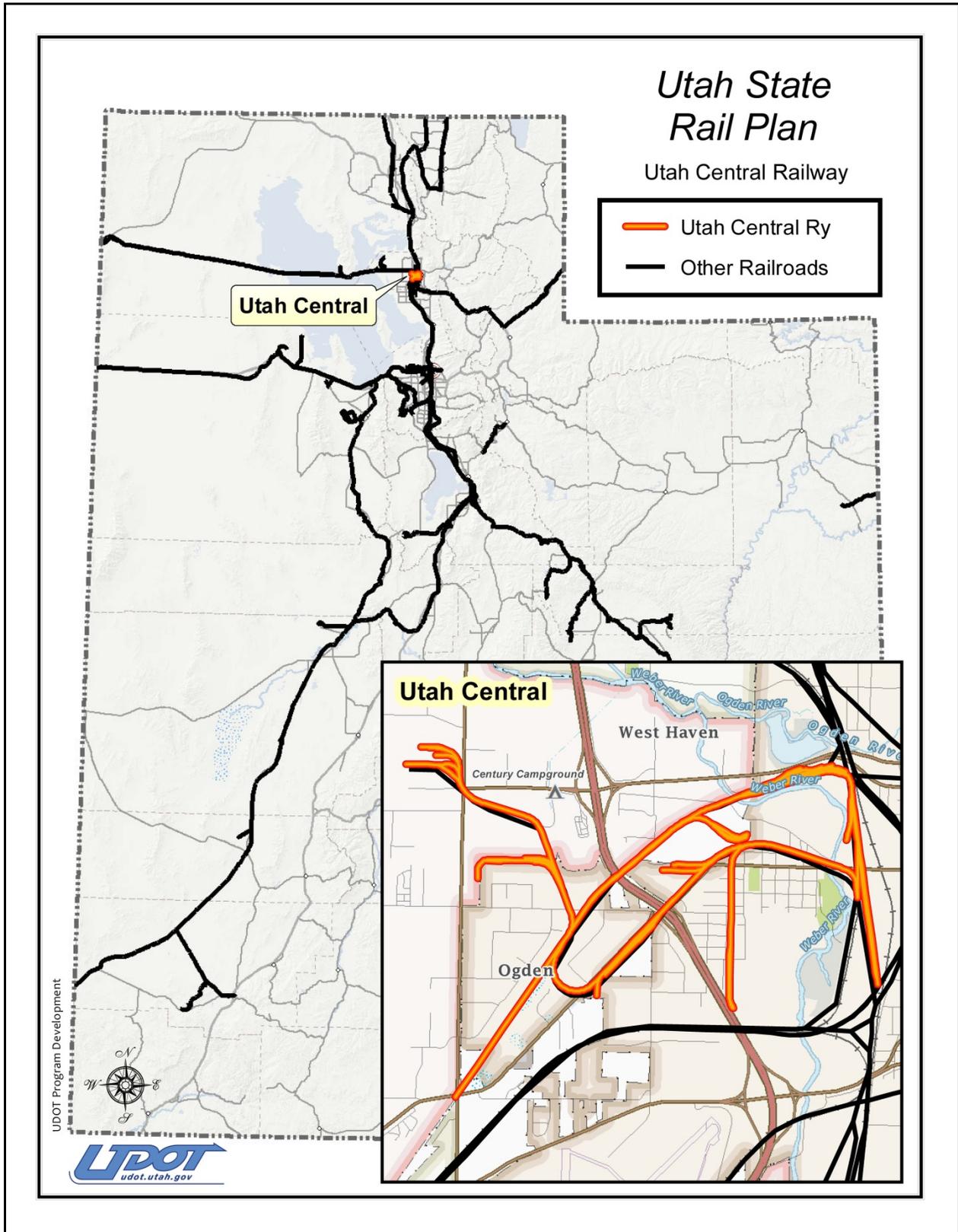
Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

The Utah Central Railway (UCRY) began operations in 1992 as a short line operating over former SP/D&RGW and UP industrial and branch line trackage on the northwest side of Ogden. The Utah Central also handles contract switching operations at Business Depot Ogden which is the former U.S. Army Defense Depot in Ogden. Utah Central connects with both UP and BNSF, through its agent Utah Railway, at the former D&RGW Yard in Ogden. In 2008 the Utah Central was sold to short line operator Patriot Rail Corporation of Florida. Today the Utah Central serves 34 miles of track in the growing industrial area in and around Ogden.



Photo by Kent Brown

Figure 26: Utah Central Railway



2.1.13 Utah Railway

Table 14: Utah Railway Information

Federal Railroad Administration Abbreviation:	UTAH
Surface Transportation Board Classification:	Class III Railroad
Category:	Freight
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	396
Number of Utah Employees:	69
Total Utah Employee Earnings:	Not Available
Taxes Paid to Utah:	Not Available
Signal Type:	DTC and CTC

Sources: Federal Railroad Administration, 2013. Association of American Railroads, 2012.

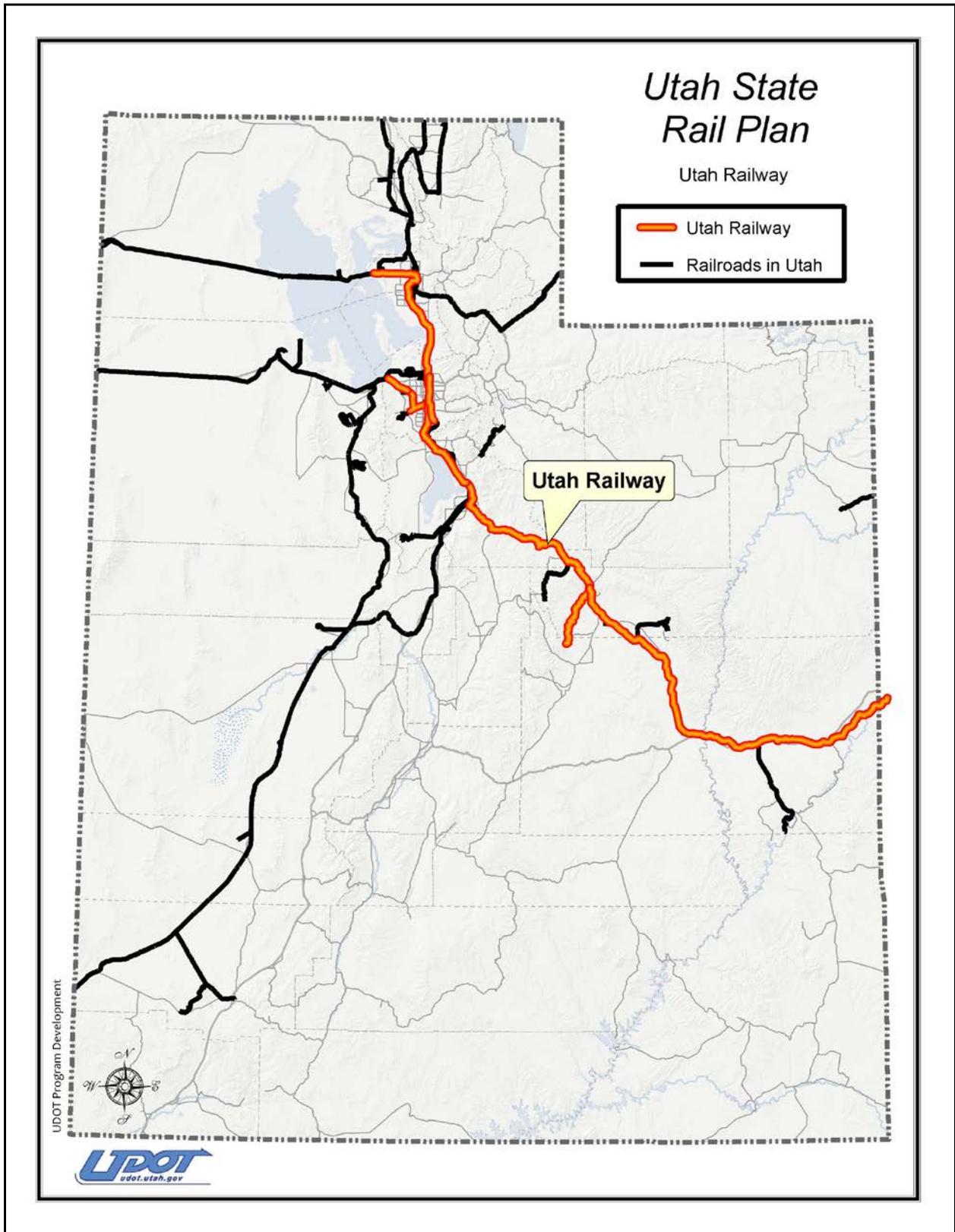
The Utah Railway (UTAH) is a Genesee & Wyoming short line railroad that interchanges with BNSF and UP. It was originally built in 1912 to access coal mines in Carbon County near Price, Utah. The Utah Railway today operates over an extensive network of trackage rights assigned to BNSF Railway that resulted from the UP/SP merger in 1996. As a result of the UP/SP merger, these rights were extended east to the Grand Junction, Colorado interchange with BNSF Railway and to provide rail freight competition.

Utah Railway serves customers throughout the Provo, Salt Lake City to Ogden Wasatch Front population corridor, including the Little Mountain and Weber areas near Ogden, as an agent of BNSF Railway. The Utah Railway's operations range from local freights serving Wasatch Front oil refineries and other industries to hauling unit trains of coal over the state's highest railroad pass, 7,440 feet Soldier Summit.



Photo by Vern Keeslar

Figure 27: Utah Railway



2.1.14 Utah Transit Authority *FrontRunner*

Table 15: Utah Transit Authority *FrontRunner* Information

Federal Railroad Administration Abbreviation:	UFRC
Surface Transportation Board Classification:	Local Railroad
Category:	Passenger
National Rail System Connection:	Yes
Number of Rail Miles Operated in Utah:	88
Number of Utah Employees:	523
Total Utah Employee Earnings:	\$35,232,654
Utah Ridership:	3,437,925 (2013)
Signal Type:	ABS, ATC, PTC

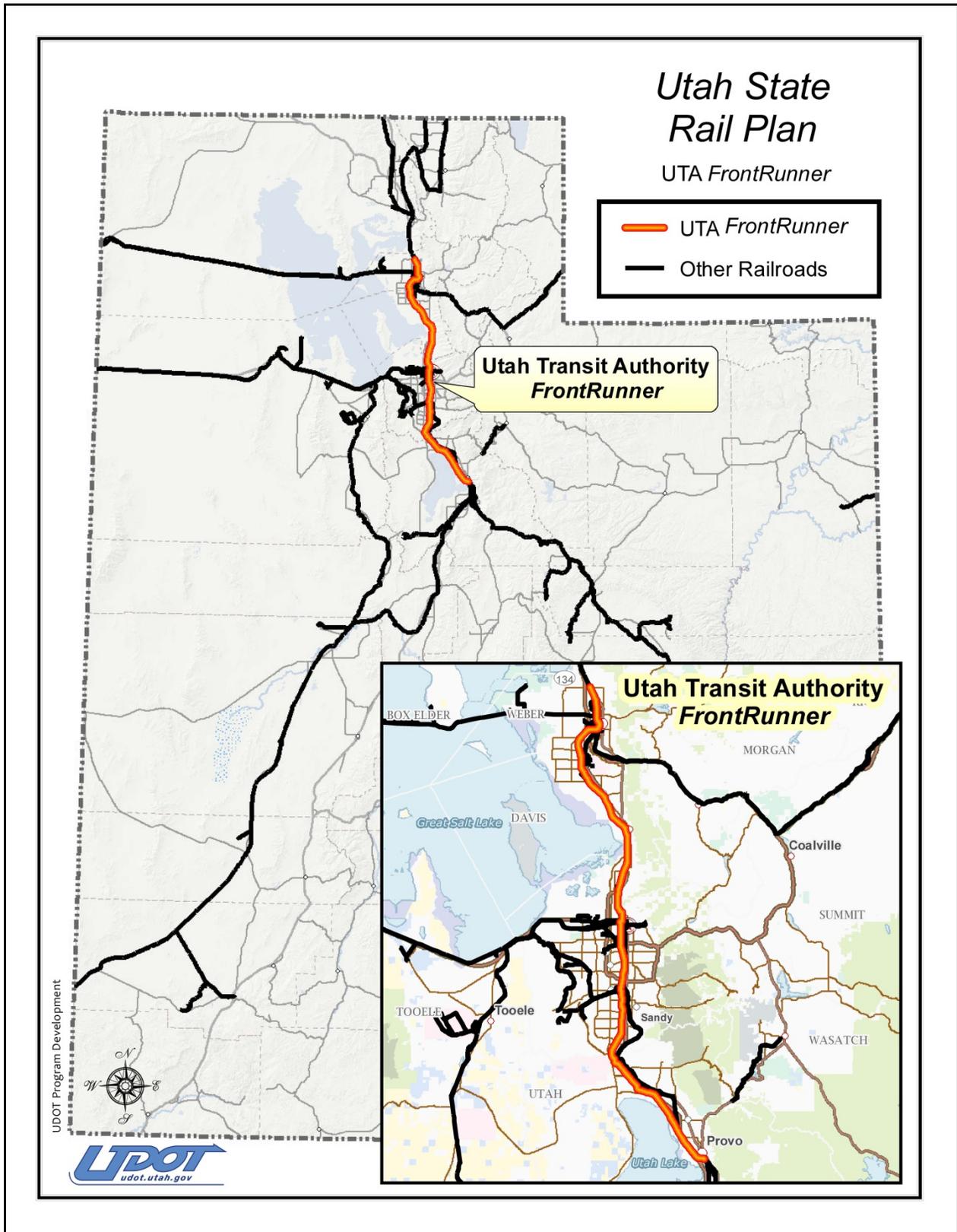
Sources: Federal Railroad Administration, 2013.

Utah Transit Authority's *FrontRunner* commuter rail service commenced operations in 2008 with over 38 miles of UTA-owned commuter train-exclusive track linking Salt Lake City with Ogden to the north, as well as six miles of track from Ogden further north to Pleasant View that is shared with UP. In 2012 UTA began *FrontRunner* service from Salt Lake City south to Provo over an additional 44 miles of UTA-owned commuter only line. UTA was formed in 1970 as the Wasatch Front population corridor's transit bus provider, expanding into light rail in 1999 and commuter rail in 2008. UTA's service area encompasses more than 1,400 square miles and 75 communities in a six county area that includes 80 percent of Utah's residents.



Photo by Vern Keeslar

Figure 28: Utah Transit Authority *FrontRunner*



2.2 Major freight and passenger terminals and stations that serve as intermodal connections, including seaports and airports.

The following tables list the freight railroad terminals and yards in Utah. Only major freight railroad terminals and yards are listed.

2.2.1 Freight Railroad Terminals and Yards

The railroad industry applies the term intermodal to containers and trailers on flat car transportation. Only one railroad has intermodal connection, Utah is served by UP’s SLCIT. Only UP provides rail intermodal freight service (truck trailers and containers) in Utah. SLCIT is located adjacent to Salt Lake City’s rapidly growing west side industrial and distribution warehousing area and is within close proximity of Interstate Highway 80, I-215, and the S. R. 201 freeways, all of which are primary freight network highways in Utah, as well as the Salt Lake City International Airport.

Table 16: Union Pacific Freight Rail Yards and Terminals

Name	Location	Information
1. Brigham City Yard	Brigham City	Small local yard handling manifest traffic from local shippers as well as trains serving the Malad Branch into Idaho
2. Freeport Center Yard	Clearfield	Manifest traffic to local businesses and warehouses
3. Helper Yard	Helper	Limited manifest freight and through unit coal train traffic
4. Lynndyl Yard	Lynndyl	Limited local manifest freight, unit grain trains, and through unit coal trains
5. Milford Yard	Milford	Limited local manifest traffic from locals to Lynndyl and on the Cedar City Branch, through unit trains of coal and grain, unit iron ore trains, crew change point for all through trains
6. North Yard	Salt Lake City	Limited manifest freight, mainline crew change location
7. Ogden Main Yard	Ogden	Limited manifest freight, mainline crew change point for trains en route to/from northern California and the Midwest
8. Provo Yard	Provo	Manifest freight, through unit coal train traffic
9. Riverdale Yard	Riverdale	Limited manifest freight, intermodal through freight block swaps
10. Roper Yard	South Salt Lake City	Manifest freight and new vehicle shipments, interchange with Utah Railway and Savage, Bingham & Garfield
11. Salt Lake City Intermodal Terminal (SLCIT)	Salt Lake City	Intermodal freight
12. Smelter Yard	Magna	Mainline block swaps, local copper smelter traffic
13. Wendover Yard	Wendover	Limited local manifest freight, unit trains of copper concentrate

Figure 29: Union Pacific Freight Rail Yards and Terminals

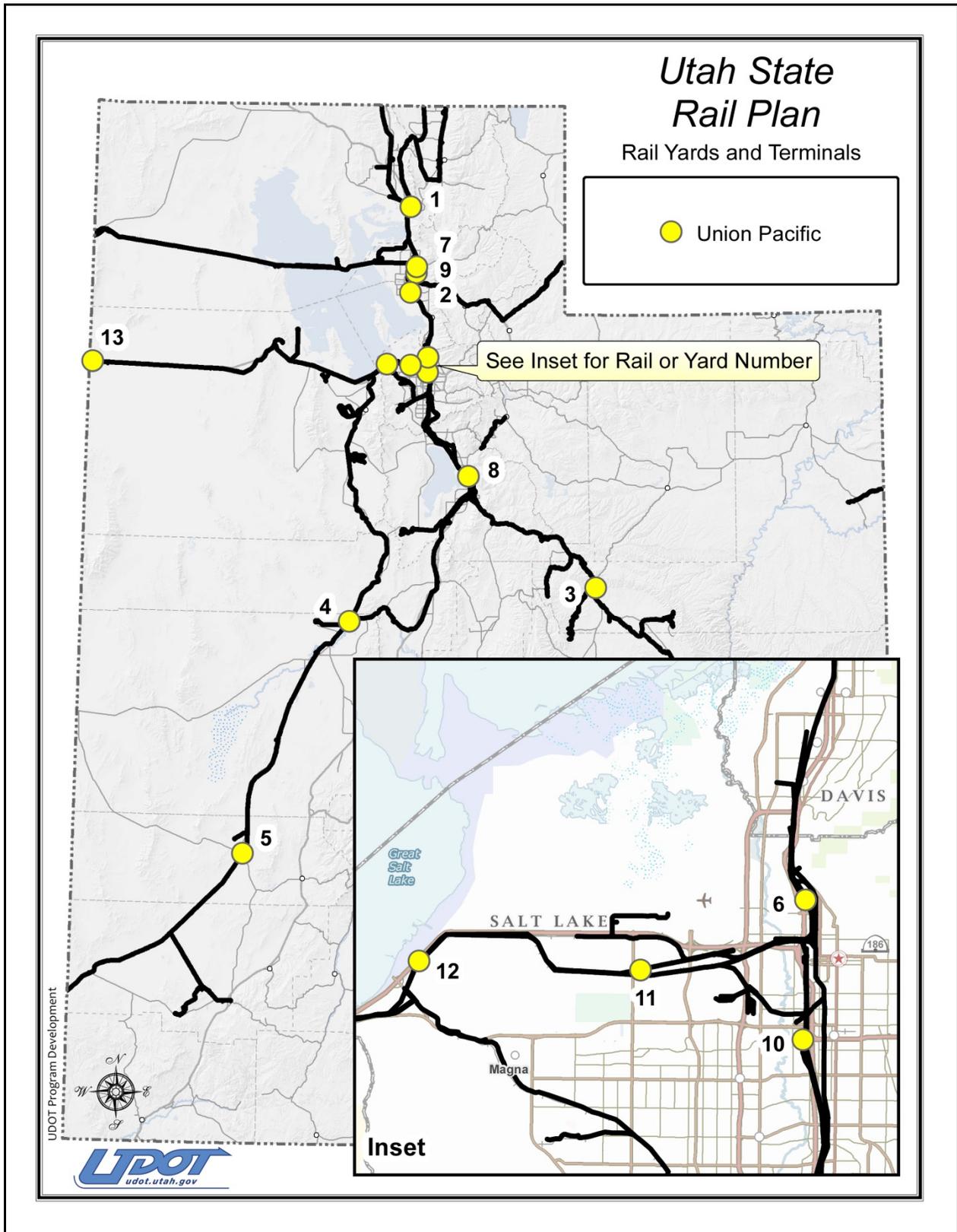


Table 17: BNSF Railway Freight Rail Yards and Terminals

Name	Location	Information
1. Midvale Yard	Midvale	Manifest freight, some interchange with Utah Railway
2. Ogden Yard	Ogden	Manifest freight, interchanges with Utah Central Railway
3. Provo Yard	Provo	Manifest freight, interchanges with Utah Railway

Table 18: Utah Railway Freight Rail Yards and Terminals

Name	Location	Information
1. Helper Yard	Helper (Martin)	Unit coal trains, BNSF trackage rights manifest trains
2. Provo Yard	Provo	Unit coal trains, local manifest trains, BNSF manifest trains

Figure 30: BNSF Railway Freight Rail Yards and Terminals

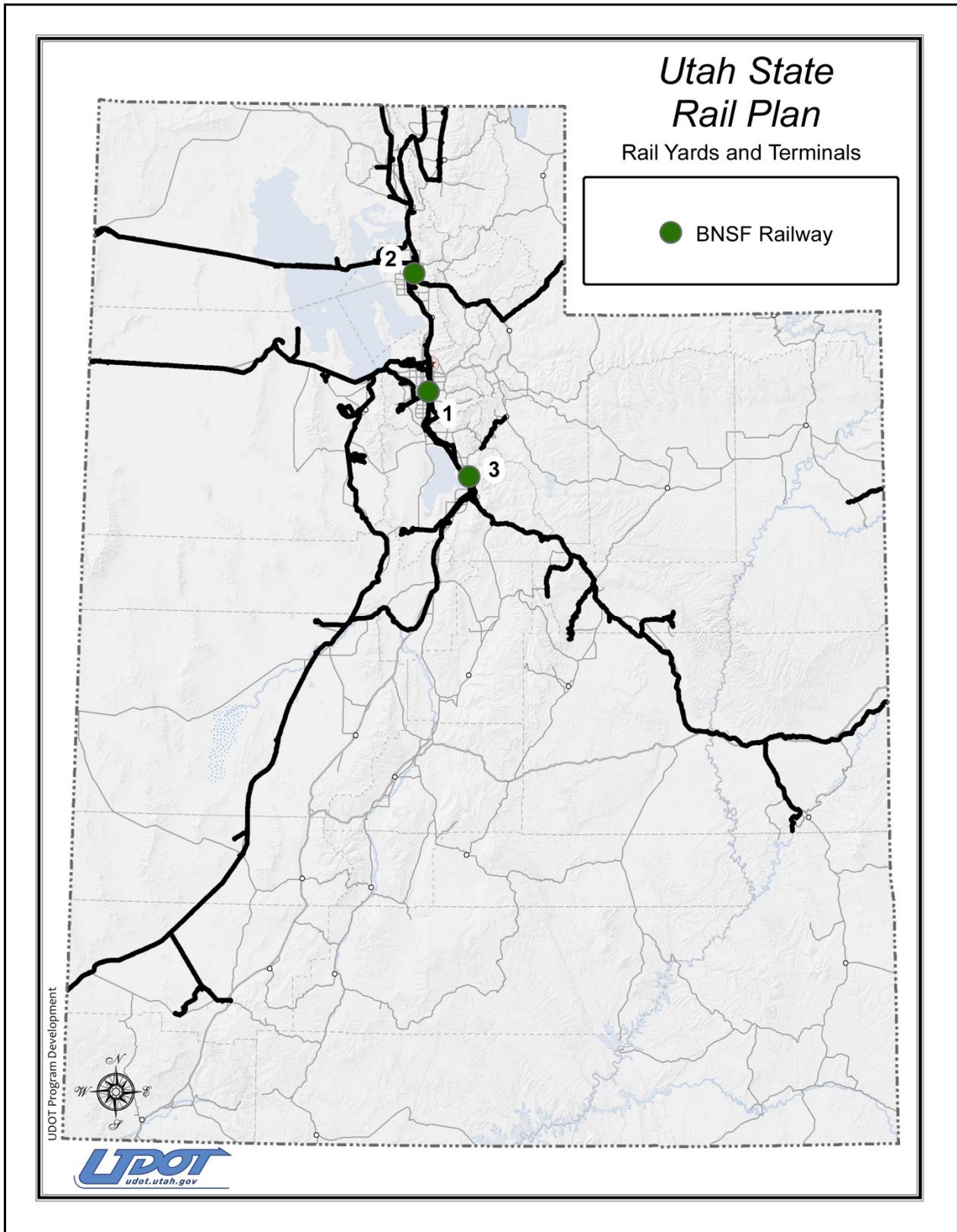
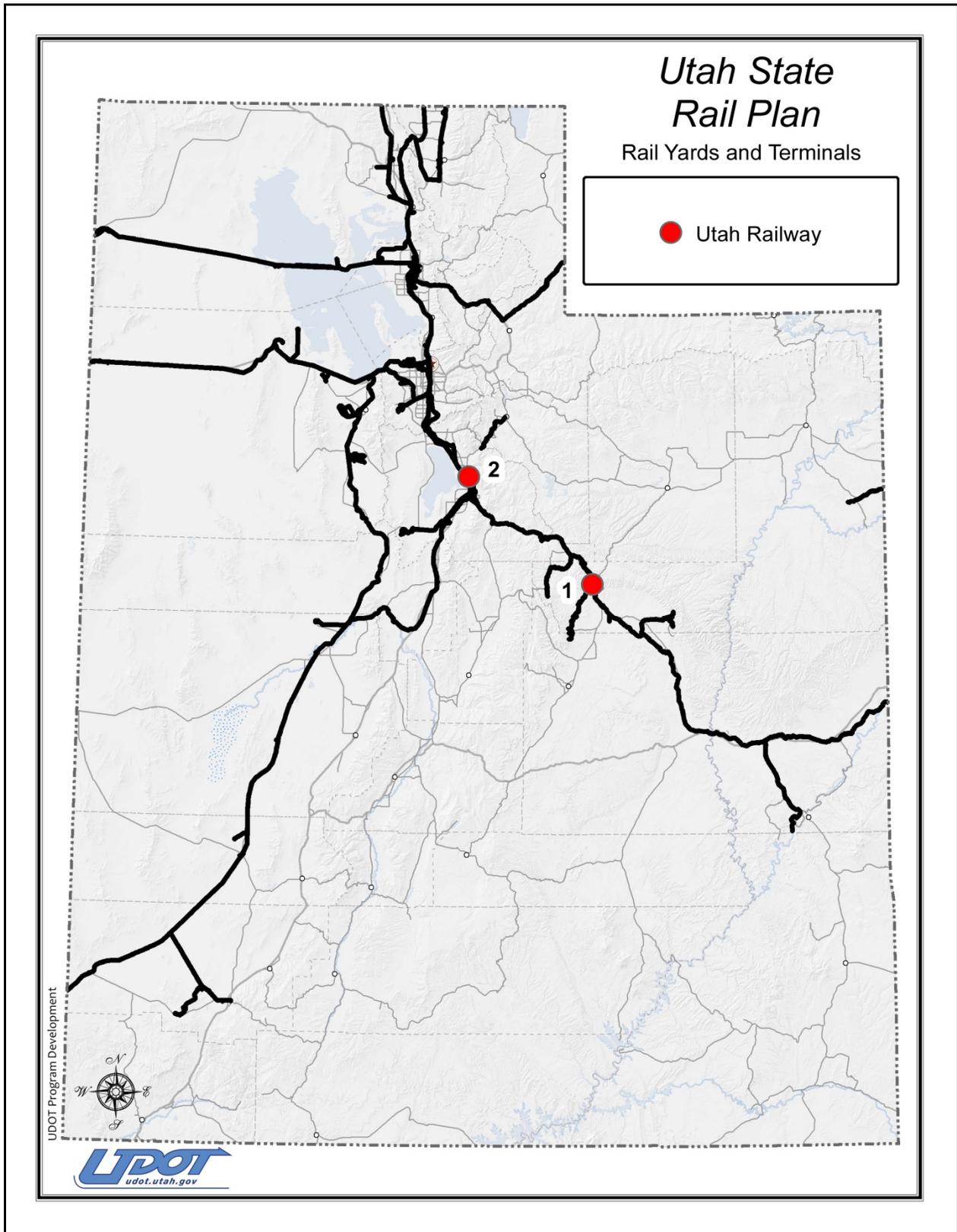


Figure 31: Utah Railway Freight Rail Yards and Terminals



2.2.2 Other Freight Multi-modal Connections

There are five oil refineries located between Salt Lake City and suburban Woods Cross, located ten miles to the north. Also in this same energy corridor are the Pioneer Pipeline Terminal and the Chevron Pipeline Terminal for refined petroleum products arriving from out-of-state. All of these facilities provide a form of multi-modal connection inasmuch as they combine rail freight service with pipelines and trucks.

A facility for new automobiles is maintained by the UP at their Roper Freight Yard, located three miles south of downtown Salt Lake City adjacent to I-15, I-80, and the S.R. 201 freeways. This facility handles all shipments of new automobiles and vehicles by rail for northern Utah. Southwestern Utah, primarily the communities of St. George and Cedar City, receives some of their new vehicles and intermodal freight shipments via a modest UP facility located in North Las Vegas.

2.2.3 Passenger Railroad Terminals and Stations

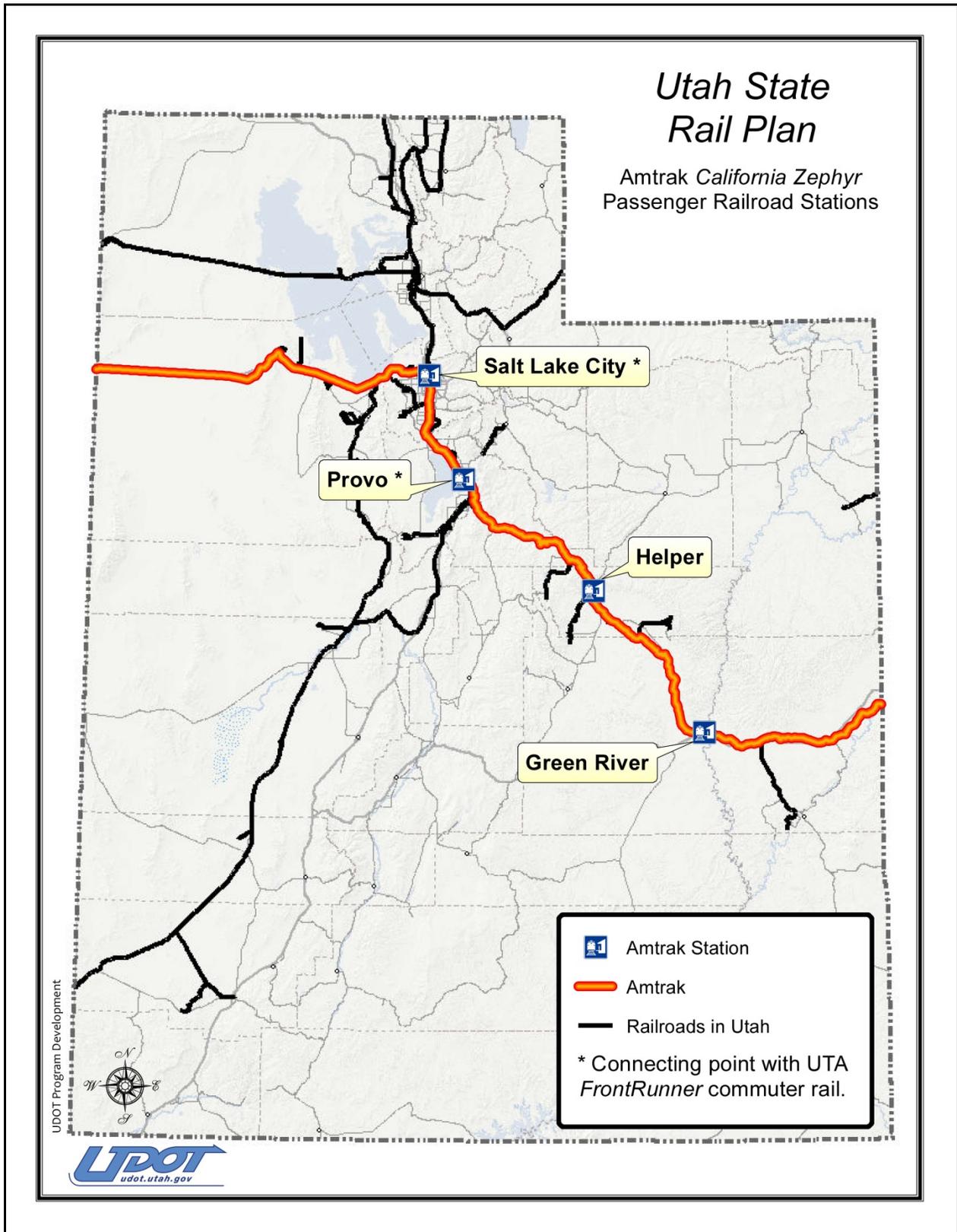
Amtrak’s *California Zephyr* is the only intercity passenger train remaining in Utah since the Salt Lake City/Ogden to the Pacific Northwest *Pioneer* and the Salt Lake City to Southern California *Desert Wind* were discontinued in May of 1997. Amtrak serves the communities of Green River, Helper, Provo, and Salt Lake City with passenger stops, though only Salt Lake City has a manned station selling tickets and providing checked baggage services. The other three Amtrak stops in Utah are unmanned stations with minimal shelter facilities.

Amtrak’s Salt Lake City station is a part of the UTA Salt Lake Central Station complex which includes intercity bus service by Greyhound, as well as city buses, *TRAX* light rail and *FrontRunner* commuter rail transit services provided by UTA. A limited multi-modal arrangement is found adjacent to Amtrak’s shelter station in Provo where UTA city buses and *FrontRunner* commuter trains use a facility located less than one block from the Amtrak station. UTA *TRAX* and *FrontRunner* stops along those respective systems include connections to UTA’s local city bus system. The table below lists Amtrak’s station locations in Utah along with their multi-modal connectivity.

Table 19: Amtrak’s *California Zephyr* Passenger Railroad Stations

Name	Location	Information
Green River	Green River	No multi-modal connection
Helper	Helper	No multi-modal connection
Provo	Provo	Multi-modal connections to UTA bus and <i>FrontRunner</i> commuter rail
Salt Lake City	Salt Lake City	Multi-modal connections to UTA bus, <i>FrontRunner</i> commuter rail, <i>TRAX</i> light rail, and Greyhound bus

Figure 32: Amtrak's California Zephyr Passenger Railroad Stations

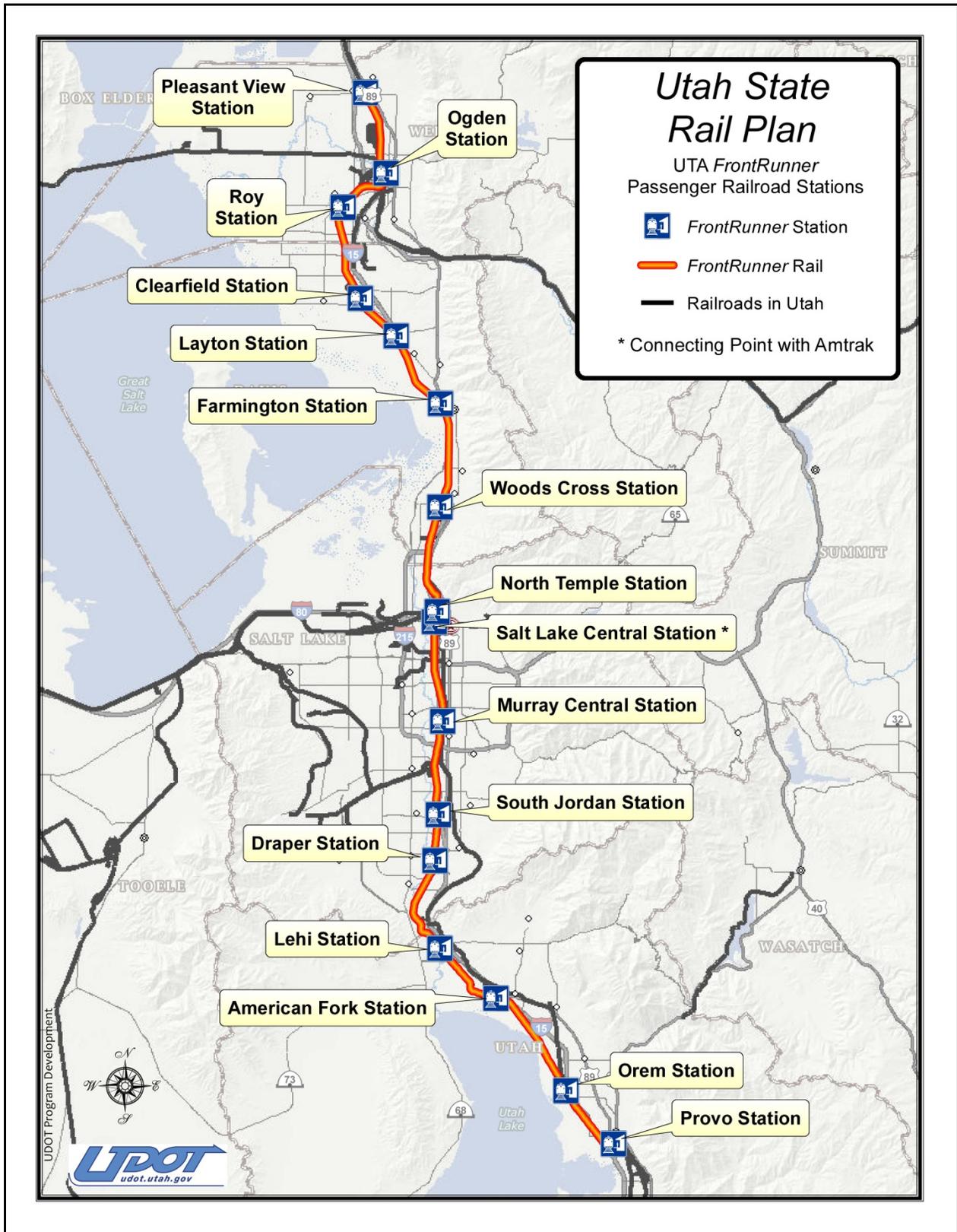


UTA's *FrontRunner* service from Pleasant View to Provo has 16 stations in 15 cities along the Wasatch Front. The table below lists the stations and their multi-modal connectivity. The North Temple Station connects with the Airport *TRAX* line.

Table 20: Utah Transit Authority's *FrontRunner* Passenger Railroad Stations

Name	Information
Pleasant View Station	Connection to UTA bus with 297 parking spaces
Ogden Intermodal Center	Connection to UTA bus with 476 parking spaces
Roy Station	Connection to UTA bus with 502 parking spaces
Clearfield Station	Connection to UTA bus with 561 parking spaces
Layton Station	Connection to UTA bus with 383 parking spaces
Farmington Station	Connection to UTA bus with 874 parking spaces
Woods Cross Station	Connection to UTA bus with 235 parking spaces
North Temple Station	Connection to UTA bus and <i>TRAX</i> light rail (no parking spaces)
Salt Lake Central Station	Connection to UTA bus, <i>TRAX</i> light rail, and Amtrak intercity rail passenger service with 36 parking spaces
Murray Central Station	Connection to UTA bus and <i>TRAX</i> light rail with 345 parking spaces
South Jordan Station	Connection to UTA bus with 577 parking spaces
Draper Station	Connection to UTA bus with 600 parking spaces
Lehi Station	Connection to UTA bus with 739 parking spaces
American Fork Station	Connection to UTA bus with 553 parking spaces
Orem Station	Connection to UTA bus with 498 parking spaces
Provo Station	Connection to UTA bus with 811 parking spaces

Figure 33: Utah Transit Authority's *FrontRunner* Passenger Railroad Stations



2.3 Objectives for the passenger rail services operating within the state, including minimum service levels by route, including service frequency, capacity, and projected ridership.

2.3.1 Intercity Passenger Rail

Intercity passenger rail is provided by Amtrak’s *California Zephyr*, which passes through Utah twice daily en-route west to the San Francisco Bay Area and east to Chicago. Amtrak’s operating objectives include striving to deliver high quality, safe, on-time rail passenger service that exceeds customer expectations. The table below shows the four Utah station stops and departure times for both trains 5 (westbound) and 6 (eastbound).

Table 21: Amtrak’s *California Zephyr* Utah Station Departure Times

Station	Train #5 (westbound)	Train #6 (eastbound)
Green River	5:58 p.m.	7:59 a.m.
Helper	7:20 p.m.	6:37 a.m.
Provo	9:26 p.m.	4:35 a.m.
Salt Lake City	11:30 p.m.	3:30 a.m.

California Zephyr Timetable, Effective Date June 9, 2014, Amtrak.

The table below reveals ridership by the four Utah station stops for the *California Zephyr* for FY 2013. The ridership below is an increase of 4.6 percent above FY 2012.

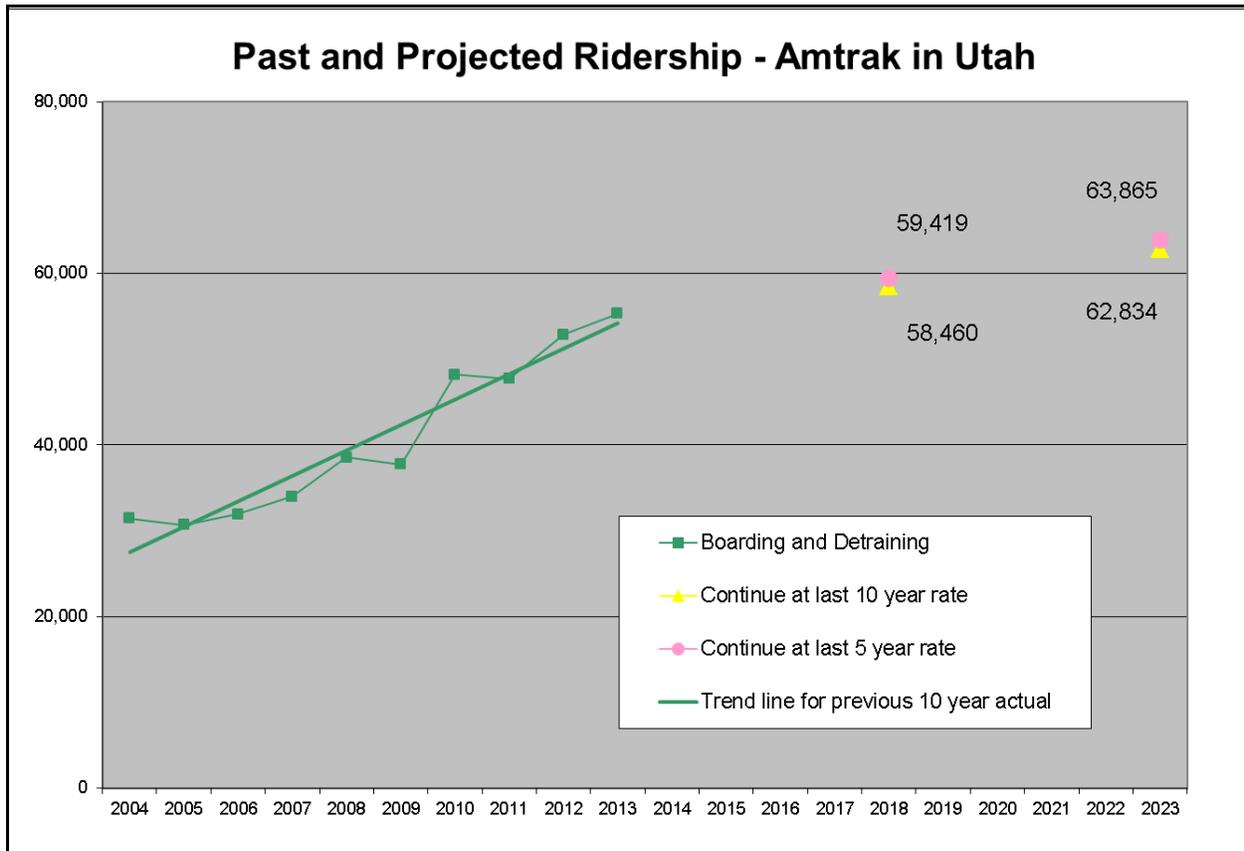
Table 22: Amtrak’s *California Zephyr* Utah Ridership

Station	Boardings and Alightings
Green River	2,873
Helper	2,245
Provo	6,262
Salt Lake City	43,903
Total	55,283

Source: Amtrak Fact Sheet, Fiscal Year 2013 state of Utah, 2013.

The figure below contains ridership for the past ten years and the projected ridership for the next ten years. Based upon past growth, ridership on Amtrak in Utah is projected to increase over the next decade.

Figure 34: Amtrak’s *California Zephyr* Utah Past and Projected Ridership



Source: Amtrak Fact Sheet, Fiscal Year 2004-2012 state of Utah, 2013

2.4 A performance evaluation of intercity passenger services operating in the state (both interstate and intrastate services) according to metrics such as those established under PRIIA Section 207: FRA Metrics and Standards for Intercity Passenger Service. Identify possible improvements in existing services and describe strategies to achieve those improvements).

2.4.1 Amtrak Metrics and Standards

In September 2010, Amtrak completed a performance improvement plan for the *California Zephyr*. As required by PRIIA, Section 207 it lays the groundwork for a series of comprehensive new financial, operating, customer service, and other service quality metrics with aggressive standards that Amtrak must achieve by FY 2014 – it also states that Amtrak must report quarterly to the FRA on achievements. The metrics include financial/operating, on-time performance (OTP) and train delays, and customer satisfaction.

The table below summarizes the key financial and operating metrics for the *California Zephyr* for the last 23 months that data was available.

Table 23: Amtrak’s California Zephyr Financial and Operating Metrics

Metric	Report Period July 2011 – June 2013
Short-term avoidable operating cost recovery	Not available
Percentage of fully allocated operating cost recovery	42%
Long-term avoidable operating loss per passenger-mile	Not available
Adjusted loss per passenger-mile	\$0.09
Passenger-miles per train-mile	173

Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, FRA, USDOT, September 2013.

The table below summarizes the on-time performance and train delays metrics for the *California Zephyr*. The host delay refers to the railroad tracks' owner causing delays. The two main railroads that the *California Zephyr* operates over are the BNSF and the UP. In Utah, the *California Zephyr* only operates over UP owned infrastructure. The delays that Amtrak experiences on UP owned track in Utah are listed as “freight train interference,” which means the delays are due to freight train traffic. The delays that are attributed to Amtrak are “servicing” and “crew/system.” The servicing refers to switching and servicing the train delays while the crew/system refers to crew lateness or lone-engineer delays. Reliability is important with any transportation mode and on-time performance certainly needs to improve with the *California Zephyr*. Amtrak needs to develop strategies to improve on-time performance.

Table 24: Amtrak’s California Zephyr On-time Performance and Train Delay Metrics

Metric	Report Period July 2011 – June 2013
Change in “effective speed”	3.4 mph
Endpoint on-time performance	58.8%
All stations on-time performance	49.9%
Amtrak delays (minutes of delay per 10,000 train-miles)	296 minutes
Host delays (minutes of delay per 10,000 train-miles)	889 minutes

Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, FRA, USDOT, September 2013.

The table below references other service quality metrics that are mostly measured by customer surveys. Amtrak does keep track of customer complaints, which generally coincide with the metrics below. The metrics are based upon 100 points for the customer service indicator score and Amtrak’s goal is to achieve the score of 80 in all categories with the customer service indicator score. With old and worn equipment, it will be difficult for Amtrak to obtain an acceptable score of 80 with on-board cleanliness. New equipment for long-distance passenger trains is needed.

On November 2, 1999 an agreement was executed between Salt Lake City and Amtrak to relocate Amtrak’s passenger service from the Rio Grande Station to a new intermodal facility. Amtrak agreed to move its operations to a temporary station, located on the intermodal site, pending completion of the new facility. Additionally, Amtrak’s agreement to the severance of existing rail service to the Rio Grande station was conditional upon the agreement by Salt Lake City to make arrangements for passenger rail service at the new passenger intermodal facility.

On March 12, 2007, Salt Lake City assigned and delegated all of the rights and obligations of the November 2, 1999 agreement between Salt Lake City and Amtrak, to UTA and UTA accepted all such rights and obligations, which included the design and construction of a new intermodal facility to house Amtrak.

In June of 2011, UTA informed Amtrak that it has entered into the final design of a permanent Amtrak facility at the Salt Lake City Intermodal Facility. To date, no such facility has been built and Amtrak remains located in the temporary facility, which is a modular building. Amtrak looks forward to working with UTA and UDOT to ensure that Salt Lake City has the functional intermodal facility that Amtrak says it needs to operate its intercity passenger rail services.

Table 25: Amtrak’s California Zephyr Other Service Quality Metrics

Metric	Reporting Period 3 rd Quarter FY 2013
Overall service (customer service indicator (CSI) score)	86
Amtrak personnel (CSI score)	84
Information given (CSI score)	75
On-board comfort (CSI score)	80
On-board cleanliness (CSI score)	61
On-board food service (CSI score)	72
Overall station experience	Not available
Overall sleeping car experience	Not available
Equipment-caused service interruptions (per 10,000 train-miles)	19

Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, FRA, USDOT, September 2013.

Amtrak also provides information regarding the *California Zephyr’s* public benefit, which is measured in two ways. The table below shows the public benefit information.

Table 26: Amtrak’s California Zephyr Public Benefit Metrics

Metric	Reporting Period FY 2012
Connectivity (Percent of passengers traveling on long distance routes connecting to or from other train routes)	19.6%
Availability of other modes (Percent of passengers, system-wide, traveling to or from underserved communities)	4.8%

Quarterly Report on the Performance and Service Quality of Intercity Passenger Train Operations, FRA, US DOT, September 2013.

2.5 A statement on public financing for rail projects and service in the state, including a list of current and prospective public capital and operating funding resources, public subsidies, state taxation, and other financial policies relating to rail operations and infrastructure development. This section should also address existing challenges to state investment or involvement in rail transportation as posed by the state’s constitution, laws, or regulations, or by implementation of current or proposed federal regulations.

2.5.1 Public Financing

Currently, Utah does not have a public financing mechanism for private rail investment for capital and operating funds from public resources such as taxes and subsidies. The Utah Constitution states in Article XIII, Section 5 Use and amount of taxes and expenditures, number six, as discussed earlier in this chapter.

Having no state funded resources for capital and operating expenses for the private sector railroads has not been a problem in the recent past. However, as freight mobility continues to be an important part of Utah’s economy, state funding for rail investment could potentially be a topic of discussion in the near future.

2.6 Ongoing programs and projects intended to improve the safety and security of rail transportation, including all major projects funded under section 130 of Title 23.

2.6.1 Safety

UDOT is the jurisdictional agency responsible for the oversight of safety at all public grade crossings in the state of Utah. This authority is codified in Title 54 of the Utah State Code and Administrative Rule R930-5. Railroads, on the other hand, have jurisdiction over and are responsible for the safety of private crossings. UDOT’s crossing oversight goal is to improve the safety for all users and provide for the efficient operations of trains and vehicles and pedestrian access through crossings. As part of this effort, UDOT promotes the elimination of at-grade crossings, reviews all existing crossings in the state for safety deficiencies, evaluates and approves the location of

new crossings, reviews the type of improvements at crossings and determines the maintenance responsibilities for crossings.

Any change to a crossing, either from the railroad or road agency, will result in a diagnostic review which the UDOT Rail Safety group will conduct with the affected parties. On average in the past five years and particularly because of the capital development of the UTA rail transit projects, UDOT has conducted roughly 60 diagnostic reviews annually on crossings in Utah. Since 2008 there have been 288 official diagnostic reviews at crossings in the state.

2.6.1.1 Section 130 Funds

UDOT Rail Safety is also responsible for conducting a program to improve crossing safety through federal safety funds based upon identified needs or locations for safety upgrades. The set-aside Section 130 funds under the Highway Safety Improvement Program (HSIP) are used for a variety of railroad crossing safety improvement projects including, but not limited to:

1. Crossing elimination by new grade separations, relocation of highways, roadways, or railroads, and crossing closure without other construction.
2. Reconstruction of existing grade separations.
3. Crossing improvement by:
 - a. Installation of standard signs and pavement markings.
 - b. Installation of Stop signs.
 - c. Installation or replacement of active traffic control devices, including track circuit improvements and interconnection with highway intersection traffic signals.
 - d. Crossing illumination.
 - e. Crossing surface improvements.
4. General site improvements.

2.6.1.2 Crossing Inventory Inspection

In the state of Utah, UDOT oversees and maintains the inventory and inspections of the state's public railroad crossings. Between the rails and one foot outside of the rails at grade crossings are maintained by the railroad company. The roadway leading up to the public crossing is maintained by the roadway authority. Private grade crossings on roadways privately owned, such as on a farm or in an industrial area, are intended for use by the owner or by the owner's licensees and invitees. A private crossing is not intended for public use and is not maintained by a public highway authority.

All crossings in the United States, public, private and pedestrian, both at-grade and grade separated (overpasses and underpasses) are required by Law (RSIA of 2008) to

have a DOT Crossing Inventory Number assigned and the number should be posted at the crossing.

Measurements, photos and condition status are maintained through field review each year and documented and compiled for the department use. Deficiency of signage, surface or other safety components are identified and the responsible party or agency is contacted yearly through a letter identifying current crossing items not in compliance.

In 2013, there are 697 public, at-grade crossings in the state of Utah. These crossings represent the number for a freight corridor but do not include crossings for some light rail crossings, particularly ones defined by traffic light control. A list of railroad crossings by type and county is listed in Table 27 Utah Public Railroad Crossings.

Table 27: Utah Public Railroad Crossings by Type

County	Pedestrian Crossings	Vehicle Crossings
Beaver	0	6
Box Elder	0	62
Cache	0	81
Carbon	0	26
Davis	0	26
Emery	0	2
Grand	0	12
Iron	0	23
Juab	1	31
Millard	0	26
Morgan	0	1
Salt Lake	3	179
Summit	0	1
Tooele	0	31
Utah	0	134
Wasatch	0	6
Weber	0	50
Total	4	697

Federal Railroad Administration, 2013

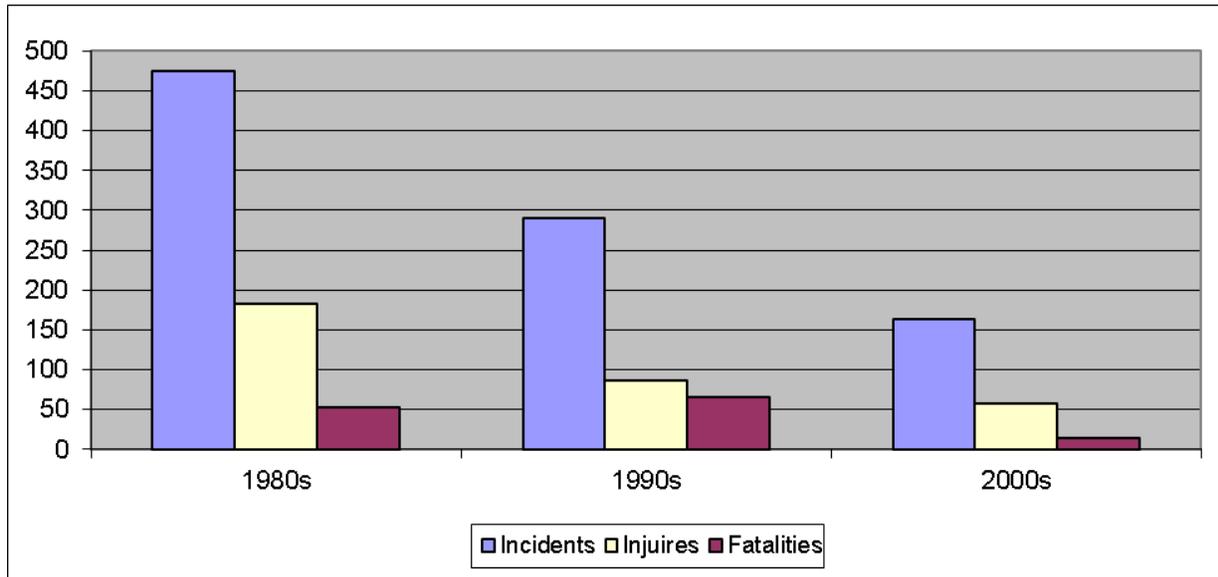
2.6.1.3 Zero Fatalities and Operation Lifesaver

The loss of just one life is too many. This is the philosophy of Zero Fatalities. It's a goal we can all live with. Zero Fatalities is not only a UDOT program, it is also one of UDOT's three strategic goals. The Zero Crashes, Injuries and Fatalities goal is contained within the Utah Comprehensive Safety Plan. Several agencies have long strived to reduce fatalities and injuries on Utah's highways. These agencies formally joined forces to create the Utah Safety Leadership Committee. This allows Utah to take a

comprehensive, coordinated approach to improving traffic safety. The Utah Strategic Highway Safety Plan is the culmination of the joint efforts of these agencies and sets the direction for Utah’s collective safety efforts in the future.

Operation Lifesaver is a member of the Utah Safety Leadership Committee and promotes rail safety by educating the public through presentations to a variety of audiences including new drivers, school bus drivers, and professional truck drivers. Operation Lifesaver is a non-profit organization providing public education programs to prevent collisions, injuries and fatalities at highway-rail grade crossings and around railroad tracks. While crossing incidents have declined over the past three decades, the number of trains and train miles traveled are on the rise in Utah. The three “E’s” of Operation Lifesaver – Education, Engineering, and Enforcement will continue to be a major focus to keep highway-rail grade crossing incidents on the decline. Utah, according to the FRA’s data, is one of the best 15 states for low number of collisions at highway-rail grade crossings. Educational programs and signage at highway-rail grade crossings is not considered rail infrastructure.

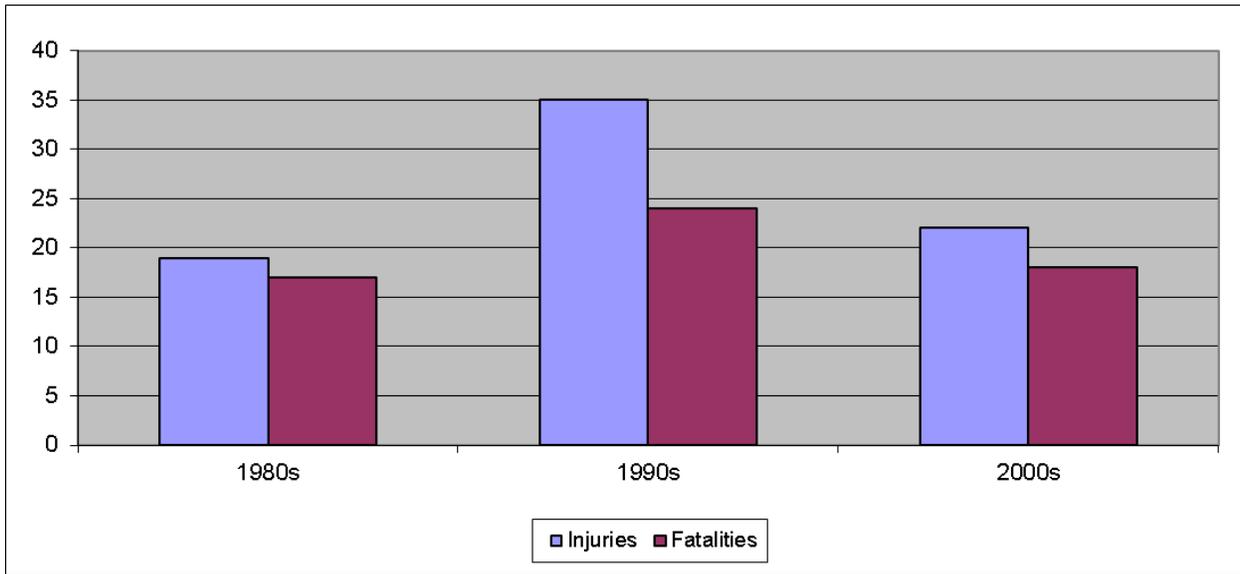
Figure 35: Utah Highway-Rail Grade Crossing Incidents by Decade



Source: Federal Railroad Administration

Highway-rail grade crossings are not the only place where incidents between trains and vehicles, pedestrians, or bicyclists take place. Trespassing on railroad tracks, right-of-way, and equipment also claims lives and injuries. Trespassing on railroad rights-of-way is not only dangerous, it is illegal. Again, according to FRA’s data, Utah is one of the best 15 states for low number of trespass incidents.

Figure 36: Utah Rail Trespassing Injuries and Fatalities by Decade



Source: Federal Railroad Administration

2.7 A general analysis of rail transportation’s economic, and environmental impacts in the state including, but not limited to, congestion mitigation, safety impacts, trade and economic development, air quality, land use, energy use, and community impacts.

Overall, rail transportation has had a positive impact on Utah's economy and environment. Freight rail has a long history in Utah and is a vital element in Utah's economic prosperity. According to the World Trade Center Utah, growth in exports from Utah has led the nation for the past five years and was second in the nation in 2011. Rail service accounts for roughly 16 percent of the commodity flow from Utah (by weight). With five national parks, much of Utah's landscape is known for its pristine environment. While it is difficult to measure the contributors to Utah's environmental elements, the history and future of rail service in Utah is one of many balanced contributions.

Significant detail is offered in the USRP regarding the history, present conditions, and future of rail in Utah. This section briefly highlights the benefits and impacts of rail service in Utah in several key areas identified by Federal legislation.

2.7.1 Congestion Mitigation

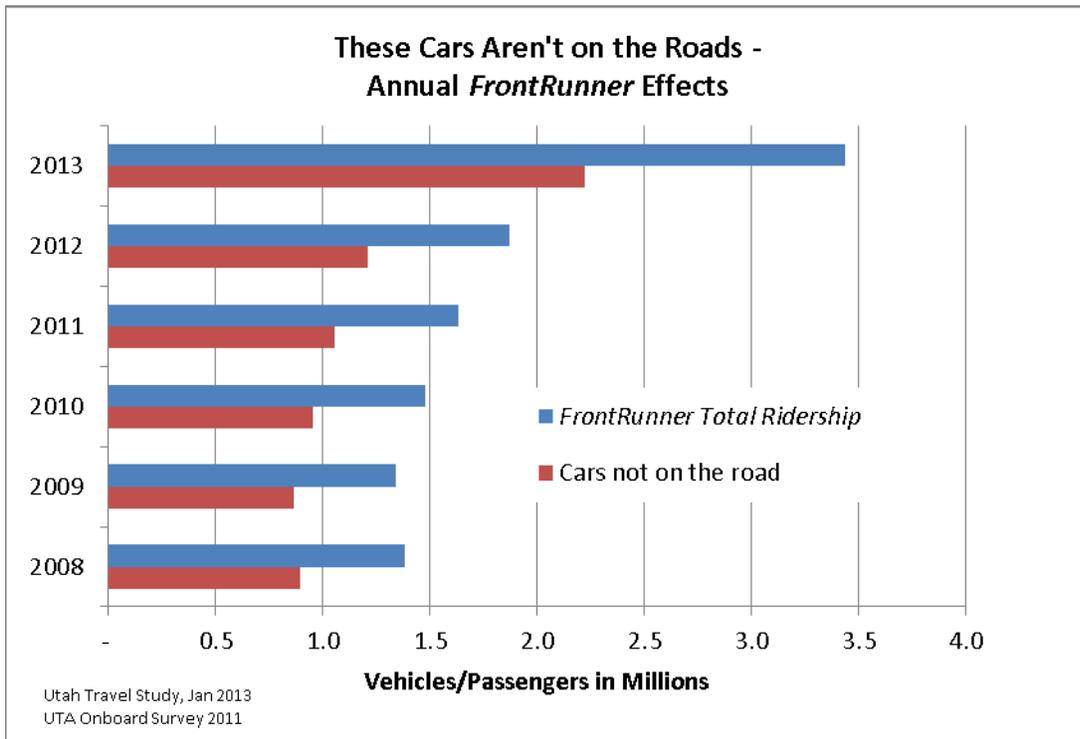
Traffic congestion is a growing concern in Utah's urban areas. According to the Texas Transportation Institute’s (TTI) 2012 Mobility Report, urban congestion accounts for over \$121 billion with 22 percent of that cost shouldered by trucks. From 101 urban areas, the Salt Lake City metropolitan area ranked 54th in truck congestion costs with

\$71 million while the Provo-Orem metropolitan area ranked 87th in truck congestion costs with \$30 million. To the extent that freight rail service reduces the need for truck travel in urban areas, freight rail in Utah plays a significant role in urban congestion.

Similarly, passenger rail and particularly work related mass transit has significantly grown in Utah based on its ability to reduce urban congestion. UTA's *FrontRunner* Commuter Rail from Pleasant View to Provo is a good example of this. In cooperation with UTA, both the WFRC, and MAG, participated in years of planning for commuter rail. Both MPOs have promoted transportation choice as an emphasis area of their regional transportation plans and view future rail service as a significant element in congestion relief through mobility choice.

The figure below shows the ridership of UTA's *FrontRunner* commuter rail from 2008-2013. The increase in 2013 includes the expansion of service from Salt Lake City to Provo, whereas the previous years only include service from Pleasant View to Salt Lake City. Notice the estimated number of vehicles that were eliminated from travel by using *FrontRunner*. In 2013, more than 2.2 million vehicles were not on the streets because their passengers were riding the *FrontRunner* rails instead.

Figure 37: *FrontRunner* Ridership and Vehicles Removed from Roads



Source: Utah Travel Survey, 2013 and UTA Onboard Survey, 2011

Finally, since 2004, UDOT has spent over \$50 million on passing and climbing lanes in rural areas throughout the state. Increases in truck travel have raised safety and capacity concerns throughout rural Utah.

2.7.2 Safety Impacts

Utah has adopted a Zero Fatalities goal for the state and is trending towards steady reductions in transportation related fatalities. Rail travel presents the ability to greatly reduce driver error as a cause for transportation fatalities and increased rail travel is consistent with UDOT's safety goal. However, highway-rail grade crossings and rail trespassing fatalities have increased in the past two years corresponding to the increase in transit rail service in the urban areas. The impacts of passenger rail conflicts in urban areas is an area of concern for the USRP and UDOT is working with various partners to improve education, enforcement, and engineering solutions to rail safety concerns.

2.7.3 Trade and Economic Development

UDOT recognizes the value of transportation and warehousing in that they provide approximately 3.7 percent of the total jobs in Utah. Warehousing locations have grown significantly in areas offering intermodal opportunities between rail and truck. In addition to freight rail's positive impact on trade and economic development, the MPO's emphasis on transportation mobility choice is viewed as one of the key components to attracting high-tech employment in the urban areas of Utah and one of the keys to creating economic development opportunities for the next generation of workers.

According to the latest statistics available from the Association of American Railroads (AAR), 59.7 million tons of railroad freight originated in, terminated in, or passed through Utah in 2011. It would take more than three million trucks to move the freight that the railroads handled in Utah. In that same year there were 1,782 freight rail employees working in Utah earning an average of \$103,270 in wages and benefits. Also in 2011, there were a total of 5,094 railroad retirement beneficiaries living in Utah earning \$97 million in retirement benefits.

2.7.4 Air Quality

Air pollution has been a significant concern for both urban and small urban areas of Utah. Many of the most severe air pollution problems are characterized by winter temperature inversions, which trap stagnant air near the surface for days and weeks, allowing pollution to build. There is a growing emphasis in reducing the inventory of air pollutants that might build over several days, with a possible focus on episodic controls. Free or reduced price transit fares have been discussed as one example of how rail service may play an increasing part in solving air quality issues. Yet, the impacts of rail

service are not well known in its ability to affect air quality. Possible rail service expansion to growing areas such as the Uinta Basin, for example, might become a catalyst towards growth and economic development that brings a possible by-product of increased air pollution.

2.7.5 Land Use

Utah is generally characterized by small pockets of dense urban activities and vast areas of extremely sparse development. Railroad service supports this pattern of development. In the past, areas surrounding the urban core with good rail access have been zoned for industrial development and warehousing. Warehousing centers similar to the pocket of development in Salt Lake City and West Valley near the 5600 West freight intermodal center have been growing in western Brigham City, western Ogden, and to a lesser extent, western Cedar City. These land use changes are consistent with economic development plans of the respective cities and urban areas. However, the recent success of commuter rail and mass transit have created an emphasis in mixed use and transit oriented development in the urban areas. Growing success of rail service may create land use conflicts, particularly in the fringe of urban areas, where traditional warehousing and industrial land uses may be less desirable from a local government perspective than urban mixed-use centers.

2.7.6 Energy Use

Excess energy use is often viewed as a by-product of congestion. Fuel consumption estimates are available in the TTI report referenced under the congestion mitigation section and may be viewed for a quantitative assessment of the traffic congestion impacts and the potential for rail service to lessen these impacts. Energy use is a potential significant issue in the USRP. Coal is the single greatest commodity transported by rail service (by weight) in Utah. As discussed, rail is also being discussed as one of many modes that might serve the transportation needs of the energy development of the Uinta Basin. Future rail service in Utah may be largely driven by national energy use and energy policies. According to the AAR, in 2012, railroads moved a ton of freight by rail an average of 486 miles per gallon of fuel. That is an increase from 241 miles per gallon of fuel from 1980 or an efficiency gain of 102 percent.

2.7.7 Community Impacts

Zoning and land use control in Utah is generally performed at the local government level with little regional or state oversight. For this reason, rail impacts on communities have largely been covered in the land use section previously provided. Classic "other side of the track" issues of community divisiveness exist in Utah but are generally not new to existing or future rail service except in the fringe areas of urban expansion.

The top two complaints from communities about railroads are noise and the blocking of highway-rail grade crossings for long periods of time. Since the implementation of UTA's *FrontRunner* service from Pleasant View to Provo, a "Quiet Zone" exists where engineers are not required to sound the horn. However, it does not mean that engineers can't sound the horn. In case of emergencies or "close calls," the locomotive engineers will sound the horn. This "No Horn Rule," allowed by the FRA, has lessened the impact of noise and improved the quality of life for people that live close to railroad tracks. The other complaint of blocking crossings continues to be an issue. Grade separated structures are expensive to build and cannot be constructed at every crossing. Railroads can lessen the impact of blocking crossings by switching to using off-peak commuting hours.

2.7.8 Tourism

Tourism is an important issue in the economic development of Utah and a target area for rural communities throughout the state. Although passenger rail through Utah is relatively small, Utah's rich railroad history allows rail service to have a positive impact on tourism in Utah. Major railroad tourist locations include the Golden Spike National Historic Site, which is located at Promontory and is the home of the ceremonial birthplace of the first Transcontinental Railroad. In Heber City, the Heber Valley Historic Railroad operates a tourist railroad in Wasatch County and treats patrons to rides down to Vivian Park in Provo Canyon. In Ogden, the Utah State Railroad Museum, located at Ogden Union Station, contains an outdoor static display of engines and rolling stock and an indoor railroad museum.

2.7.9 Hazardous Materials

Large areas of Utah's west desert, spanning both Nevada and Utah are either serving as or are proposed as radioactive waste repositories. This represents a controversial land use issue that allows rail to be viewed as both a cause and mitigation. The transport of other hazardous materials by rail is also a safety concern.

2.7.10 Health Care and Education

Just as the megacity conglomerate issues of the east coast and northeast corridor have been seen as drivers for high-speed rail service in the east, isolated western cities create unique issues and potential rail service needs for access to health care and education. Many western cities such as Albuquerque, New Mexico; Boise, Idaho; Denver, Las Vegas, Phoenix, Arizona and Salt Lake represent pockets of hospitals, universities, theatre and other "cultural activities" that serve vast surrounding areas. The ability to easily get between these population centers represents a possible market for passenger and future high-speed rail service with significant positive benefits to economic growth and the environment.

Chapter 3 – Trends and Forecasts

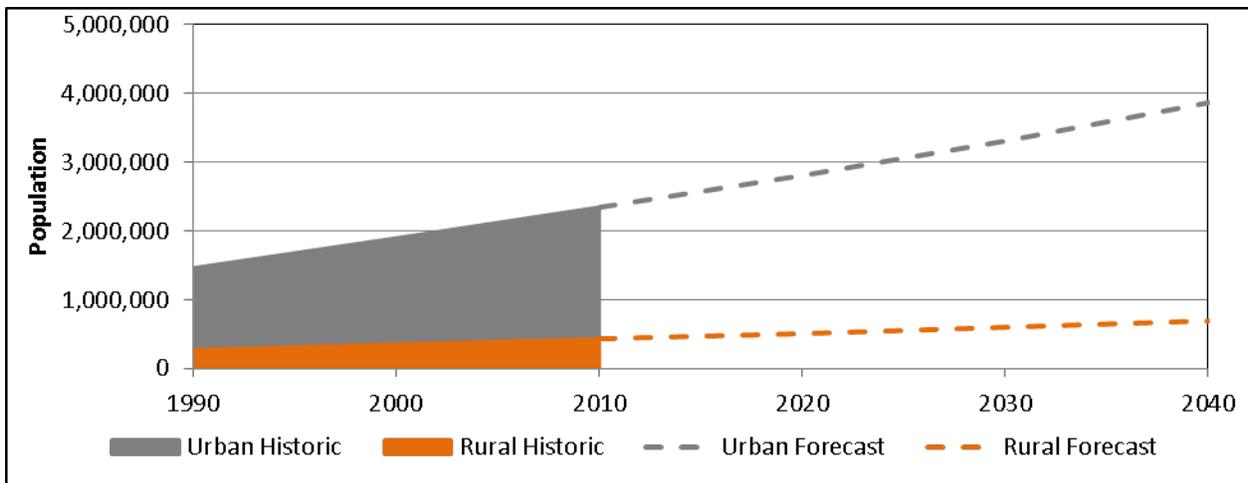
Objective: Describe the trends that will impact the need for rail in the State.

3.1 Demographic and Economic Growth Factors

3.1.1 Population Growth

Population growth within the state will drive freight and passenger rail demand over the coming decades. Utah’s population is forecast to increase from approximately 2.2 million in 2010 to 3.9 million in 2040. This represents a 65 percent increase over this thirty year period or annual growth of 1.7 percent. Most of this growth is expected within the existing urbanized counties along the Wasatch Front, Cache County and Washington County. Population growth in these six counties will account for 85 percent of the total population growth within the state. Figure 38 illustrates statewide population growth through the year 2040.

Figure 38: Historic and Forecast Population Growth within Utah



Source: 2012 Baseline Projections, Utah Governor’s Office of Management and Budget.

Salt Lake County and Utah County will account for more than half the forecast population growth within the State. These two counties are expected to add almost a million new residents, with the Utah County population growing by over 500,000 people. Washington County is also expected to see significant population growth adding over 200,000 residents. Conversely, the population in Daggett and San Juan Counties is forecast to grow by less than 500 people. Table 28 provides the 1990, 2010 and 2040 population by county.

Table 28: Population Growth by County

County	1990	2010	2040	Population Growth 2010-2040	Percent Growth 2010-2040
Beaver	4,771	6,629	10,522	3,893	59%
Box Elder	36,533	50,104	64,704	14,600	29%
Cache	70,550	113,273	196,559	83,286	74%
Carbon	20,146	21,409	22,860	1,451	7%
Daggett	702	1,061	1,407	346	33%
Davis	188,479	307,557	426,392	118,835	39%
Duchesne	12,611	18,643	25,721	7,078	38%
Emery	10,312	10,980	12,207	1,227	11%
Garfield	3,969	5,172	7,357	2,185	42%
Grand	6,622	9,225	12,147	2,922	32%
Iron	20,927	46,270	87,102	40,832	88%
Juab	5,821	10,246	20,049	9,803	96%
Kane	5,166	7,125	12,601	5,476	77%
Millard	11,313	12,503	13,804	1,301	10%
Morgan	5,547	9,469	17,926	8,457	89%
Piute	1,271	1,556	2,091	535	34%
Rich	1,731	2,264	3,153	889	39%
Salt Lake	728,295	1,033,274	1,507,997	474,723	46%
San Juan	12,451	14,746	15,191	445	3%
Sanpete	16,328	27,899	37,879	9,980	36%
Sevier	15,448	20,802	26,142	5,340	26%
Summit	15,693	36,473	71,433	34,960	96%
Tooele	26,587	58,417	128,348	69,931	120%
Uintah	22,251	32,588	42,690	10,102	31%
Utah	265,764	519,307	1,019,828	500,521	96%
Wasatch	10,149	23,668	59,159	35,491	150%
Washington	48,978	138,748	371,743	232,995	168%
Wayne	2,189	2,778	4,412	1,634	59%
Weber	158,662	232,097	349,009	116,912	50%
state of Utah	1,729,266	2,774,283	4,570,433	1,796,150	65%

Source: 2012 Baseline Projections, Utah Governor's Office of Management and Budget.

Although most of the population growth is forecast within the existing urbanized areas, several areas throughout the state will urbanize over the next several decades. These areas will have more than or close to 50,000 people by 2040. These newly urbanized areas will potentially drive demand for freight and passenger rail service and three of these areas, Brigham City-Tremonton, Cedar City, and Grantsville-Tooele already have access to existing rail service. Table 29 lists the existing and forecast population for these areas.

Table 29: Population Change in Non-urbanized Areas

Area	Cities	2010	2040	Percent Growth 2010-2040
Brigham City-Tremonton	Bear River City	853	971	14%
	Brigham City	17,899	22,970	28%
	Corinne	685	1,035	51%
	Deweyville	332	434	31%
	Elwood	1,034	1,682	63%
	Garland	2,400	3,452	44%
	Honeyville	1,441	1,754	22%
	Perry	4,512	7,764	72%
	Tremonton	7,647	10,353	35%
	Willard	1,772	2,182	23%
		Brigham City-Tremonton Area Total	38,575	52,597
Cedar City	Cedar City	28,857	54,448	89%
	Enoch	5,803	10,949	89%
		Cedar City Area Total	34,660	65,398
Park City-Snyderville	Park City	7,547	13,744	82%
	Snyderville Basin	22,290	40,591	82%
		Park City-Snyderville Area Total	29,837	54,334
Grantsville-Tooele	Grantsville	8,893	20,806	134%
	Tooele	31,605	63,683	101%
		Grantsville-Tooele Area Total	40,498	84,490
Heber-Midway	Charleston	415	1,611	288%
	Daniel	938	2,626	180%
	Heber	11,362	22,683	100%
	Midway	3,845	11,759	206%
		Heber-Midway Area Total	16,560	38,679
Hurricane-La Verkin	Hurricane	13,748	37,003	169%
	La Verkin	4,060	10,928	169%
	Leeds	820	2,207	169%
	Virgin	596	1,604	169%
		Hurricane-La Verkin Area Total	19,224	51,742

Source: 2012 Baseline Projections, Utah Governor's Office of Management and Budget.

3.1.2 Employment Growth

Employment in Utah is expected to increase from 1.6 million jobs to 2.6 million jobs between 2010 and 2040 or an increase of more than 60 percent. As with population, much of the increase is forecast within the existing urbanized counties. Again, Salt Lake and Utah Counties are expected to account for more than half of the employment growth within the State. However, unlike population, Salt Lake County is forecast to add more jobs than Utah County. Table 30 summarizes the historic and forecast employment by county.

Table 30: Employment Growth by County

County	1990	2010	2040	Employment Growth 2010-2040	Percent Growth 2010-2040
Beaver	2,114	3,532	5,547	2,015	57%
Box Elder	20,788	25,078	36,588	11,510	46%
Cache	37,318	66,917	120,745	53,828	80%
Carbon	9,567	12,656	15,252	2,596	21%
Daggett	421	707	1,239	532	75%
Davis	85,466	155,988	204,850	48,862	31%
Duchesne	5,996	10,962	13,819	2,857	26%
Emery	4,997	6,028	7,233	1,205	20%
Garfield	2,185	3,341	5,078	1,737	52%
Grand	3,476	6,622	8,807	2,185	33%
Iron	10,193	23,583	48,384	24,801	105%
Juab	2,437	4,740	7,852	3,112	66%
Kane	2,365	4,440	8,215	3,775	85%
Millard	5,548	6,658	9,361	2,703	41%
Morgan	1,971	3,984	7,241	3,257	82%
Piute	360	745	898	153	21%
Rich	781	1,369	1,700	331	24%
Salt Lake	457,410	736,747	1,057,401	320,654	44%
San Juan	4,546	6,368	8,025	1,657	26%
Sanpete	6,450	11,382	14,397	3,015	26%
Sevier	7,005	11,228	14,152	2,924	26%
Summit	11,862	33,961	68,559	34,598	102%
Tooele	13,067	22,001	46,496	24,495	111%
Uintah	10,022	18,325	23,329	5,004	27%
Utah	123,220	254,494	493,182	238,688	94%
Wasatch	3,982	10,958	25,536	14,578	133%
Washington	21,259	70,378	190,954	120,576	171%
Wayne	1,008	1,743	3,056	1,313	75%
Weber	82,119	117,785	179,444	61,659	52%
state of Utah	937,933	1,632,720	2,627,340	994,620	61%

Source: 2012 Baseline Projections, Utah Governor's Office of Management and Budget.

3.1.3 Personal Income

Utah was among the lowest ranked states for per capita personal income at 46th with a per capita income of just \$33,509 in 2011. The per capita personal income in Utah was \$8,000 less than the national average. Although Utah is among the states with the lowest per capita personal income, the median household income is above the national average. In terms of household income Utah ranked 14th with a median household income of over \$55,000 or \$5,000 more than the national average. As of 2011, the average household size in Utah was 3.1 people per household compared to the national average of 2.6 people per household (2011 American Community Survey 1-Year Estimates) likely resulting in the discrepancy between per capita income and household income. Table 32 summarizes per capita income and median household income.

Table 31: Per Capita Personal Income and Median Household Income (2011)

	Per Capita Personal Income	Rank	Median Household Income	Rank
Utah	\$33,509	46 th	\$55,493	14 th
United States	\$41,560	NA	\$50,054	NA

Source: Personal Income Summary, Bureau of Economic Analysis. Current Population Survey, Annual Social and Economic Supplements, Table H-8 Median Household Income by State, U.S. Census Bureau.

3.1.4 Outlook by Industrial Sector

Depending upon the industry, some of the new employment will generate a larger ratio of freight per employee. Industry sectors such as mining, manufacturing, energy, transportation and warehousing will generate more freight than professional and governmental services. Employment in farming, natural resources and mining, which commonly generate rail freight, is actually expected to shrink over the next three decades. However, employment in other freight related industries such as construction, manufacturing, trade and warehousing is expected to increase, but not as much as professional services.

The majority of employment growth is anticipated to be within professional services, education/health services and government. Job growth in professional services will also impact the demand for passenger rail services. Employment growth in concentrated locations near existing passenger rail corridors, or locations that could accommodate future expansion, will increase demand for commuter and intercity passenger rail service. Table 31 summarizes industry sector growth from 2010 to 2040.

Table 32: Employment Growth by Industrial Sector

Industrial Sectors	1990	2010	2040	Employment Growth 2010-2040	Percent Growth 2010-2040
Natural Resources & Mining	11,250	18,282	18,016	-266	-1%
Construction	44,512	93,339	203,433	110,094	118%
Manufacturing	107,231	119,267	150,818	31,551	26%
Retail & Wholesale Trade	145,816	225,468	322,984	97,516	43%
Transportation, Warehousing & Utilities	39,064	55,631	83,294	27,663	50%
Information	19,581	34,259	61,945	27,686	81%
Finance & Insurance	44,469	120,567	127,130	6,563	5%
Professional & Business Services	129,182	309,250	644,941	335,691	109%
Education & Health Services	85,234	185,929	319,804	133,875	72%
Leisure & Hospitality	71,416	134,712	215,640	80,928	60%
Other Services	50,317	83,244	125,531	42,287	51%
Government	170,713	233,700	341,474	107,774	46%
Farm	19,148	19,071	12,316	-6,755	-35%
Total	937,933	1,632,719	2,627,326	994,607	61%

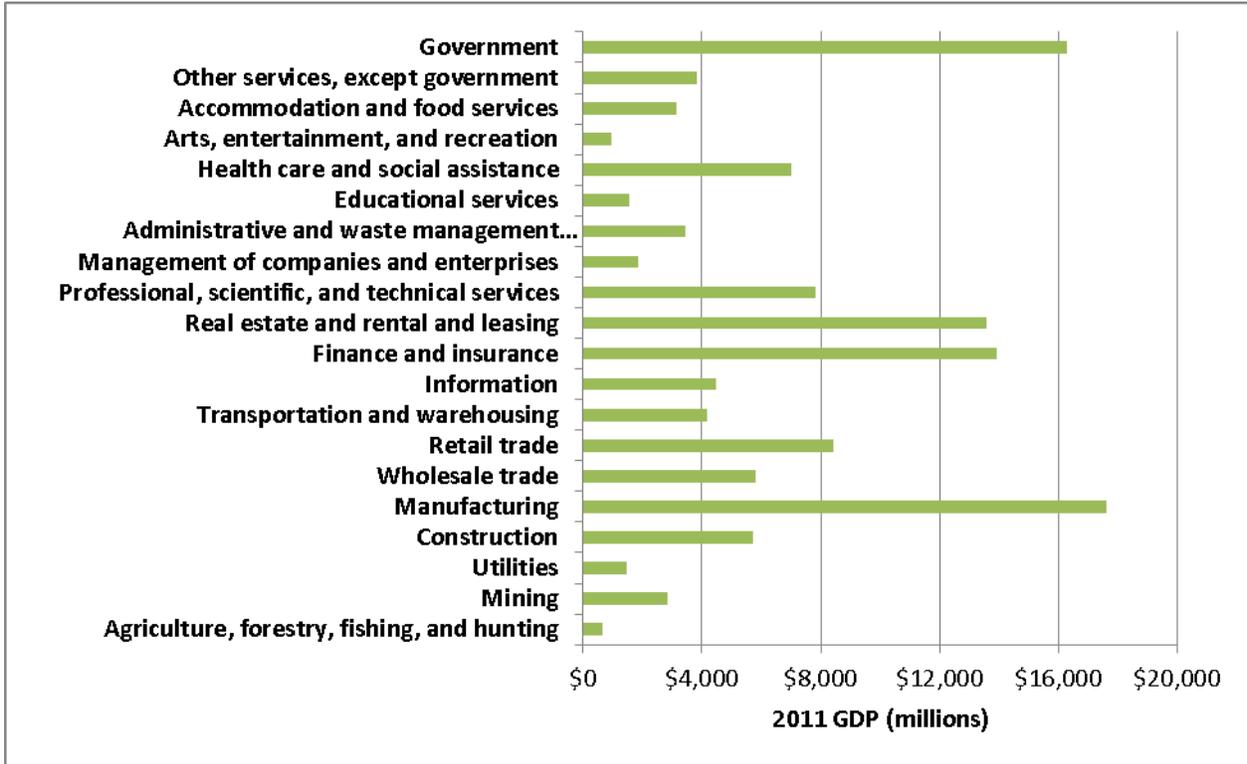
Source: 2012 Baseline Projections, Utah Governor's Office of Management and Budget.

3.2 Freight Demand and Growth

3.2.1 Gross State Product

In 2011, Utah current-dollar gross domestic product (GDP) was \$124.5 billion and ranked 33rd in the United States. The top industries were manufacturing (\$17.6 billion), government (\$16.3 billion), finance/insurance (\$13.9 billion) and real estate (\$13.6 billion). All other industries had GDP of less than \$10 billion and Figure 39 illustrates the 2011 GDP by industry.

Figure 39: 2011 Utah Gross Domestic Product



Source: Gross Domestic Product by State (millions of current dollars), Bureau of Economic Analysis.

Since 2001, the Utah GDP has grown at an annual rate of 5.6 percent, increasing from \$72.3 billion to the \$124.5 billion of today. Every industry saw an increase in GDP over the last ten years with the largest increase coming in manufacturing, which increased by more than \$10 billion. Table 33 summarizes the top five industries that saw the largest increase in GDP over the last ten years.

Table 33: Utah Gross Domestic Product Growth by Industry 2001 to 2011

Rank	Industry	2001-2011 GDP Growth (Millions)
1	Manufacturing	\$10,007
2	Finance and insurance	\$7,043
3	Government	\$6,146
4	Real estate and rental and leasing	\$4,461
5	Professional, scientific, and technical services	\$3,652

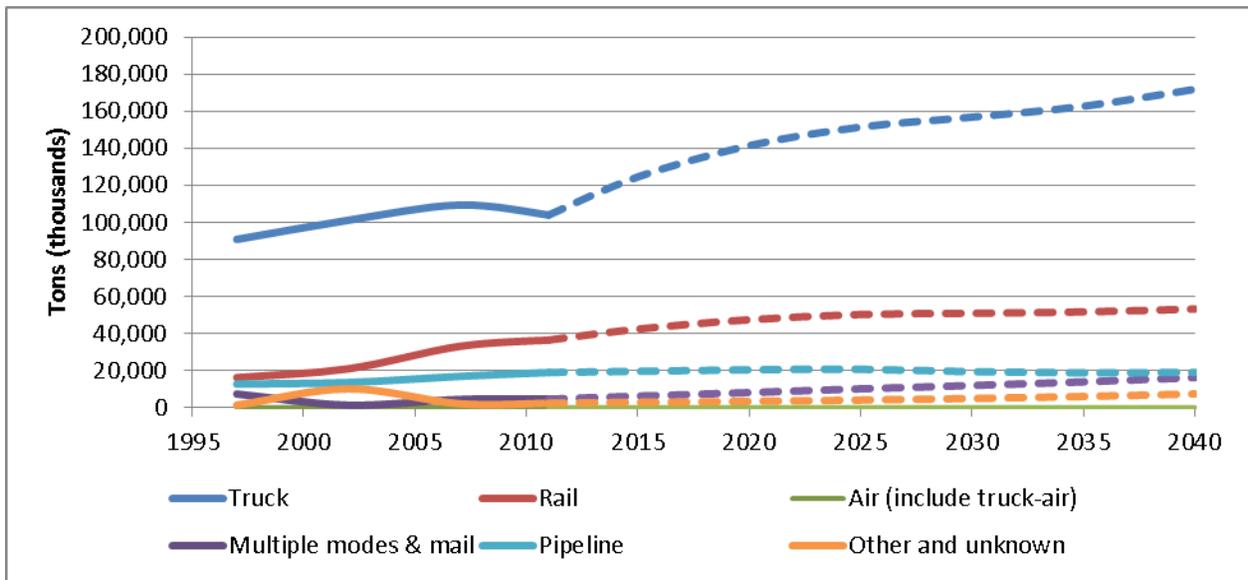
Source: Gross Domestic Product by State (millions of current dollars), Bureau of Economic Analysis.

3.2.2 Freight Growth

Federal Highway Administration’s Freight Analysis Framework (FAF) forecasts the movement of freight between states and metropolitan areas by transportation mode and commodity type. FAF version 3.4 was used to provide estimates for tonnage by mode, origin/destination and commodity type through 2040. These FAF estimates are based upon FHWA’s 2007 Commodity Flow Survey and other data sources.

Figure 40 shows the historic and forecast growth of freight tonnage by mode that originates within Utah. Currently, rail ships the second most tonnage behind truck. In 2011, rail shipped more than 36 million tons and is expected to increase by almost 17 million tons by 2040. However, since the tonnage moved by truck increases faster than tonnage shipped by rail, the proportion shipped by rail is expected to decrease from 22 percent in 2011 to 20 percent in 2040.

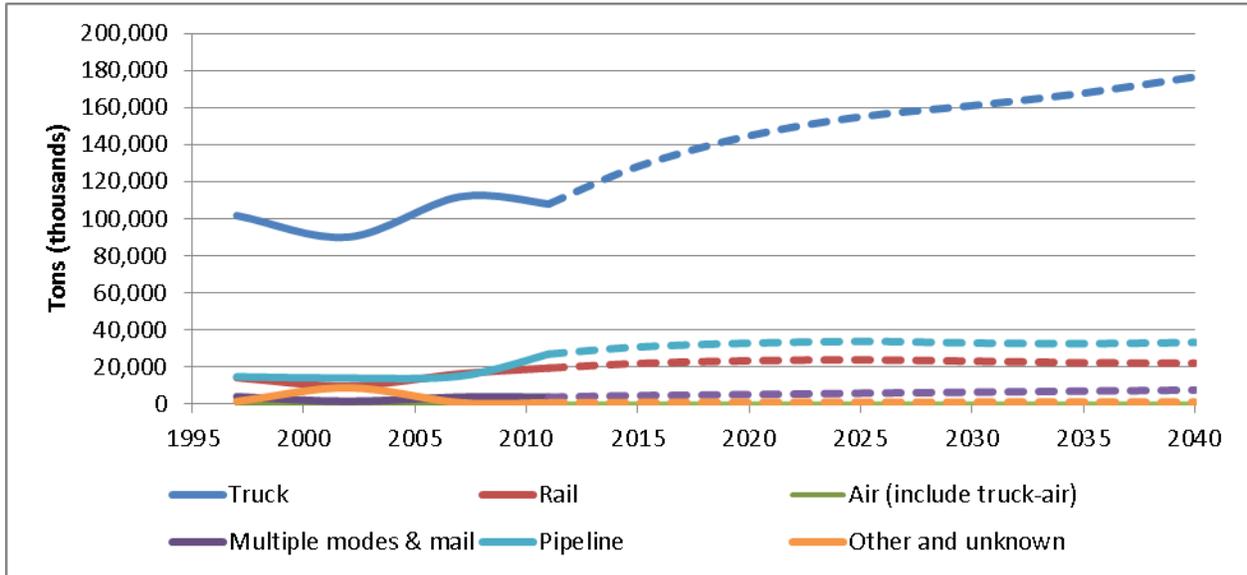
Figure 40: Tons of Freight Originating in Utah by Mode



Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

The historic and forecast growth of freight tonnage by mode terminating within Utah is illustrated in Figure 41. For freight terminating within Utah, rail carries the third most tonnage behind truck and pipeline, moving 19 million tons of freight in 2011. The tonnage of freight shipped by rail is forecast to increase by 2.6 million tons by 2040. However, the proportion of freight tonnage terminating within Utah by rail is also expected to decline from 12 percent to nine percent of all tonnage in 2040.

Figure 41: Tons of Freight Terminating in Utah by Mode



Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

Table 34: Top Commodities Originating in Utah by All Modes

Rank	Existing (2011)		Year 2040	
	Commodity	Tons (1,000)	Commodity	Tons (1,000)
1	Coal, Coke, LNG	46,523	Coal, Coke, LNG	51,676
2	Nonmetal min. prods.	13,486	Nonmetal min. prods.	27,250
3	Basic chemicals	13,100	Waste/scrap	24,337
4	Waste/scrap	11,281	Gravel	21,446
5	Gravel	10,955	Basic chemicals	16,868
6	Gasoline & Fuel Oils	17,736	Metallic ores	13,861
7	Base metals	6,693	Mixed freight	13,554
8	Mixed freight	4,996	Gasoline & Fuel Oils	21,881
9	Crude petroleum	4,801	Misc. mfg. prods.	9,283
10	Cereal grains	4,177	Cereal grains	6,745

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

Table 35: Top Commodities Originating in Utah by Rail

Rank	Existing (2011)		Year 2040	
	Commodity	Tons (1,000)	Commodity	Tons (1,000)
1	Coal, Coke, LNG	17,631	Coal, Coke, LNG	22,739
2	Basic chemicals	11,624	Basic chemicals	15,050
3	Base metals	2,823	Metallic ores	7,046
4	Metallic ores	1,410	Nonmetal min. prods.	2,009
5	Nonmetal min. prods.	981	Base metals	1,465
6	Waste/scrap	604	Nonmetallic minerals	1,306
7	Milled grain prods.	350	Waste/scrap	1,299
8	Fertilizers	333	Fertilizers	834
9	Nonmetallic minerals	310	Milled grain prods.	632
10	Cereal grains	166	Cereal grains	258

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

The FAF3 State Annual Provisional Data 2011 and the 2040 forecasts were used to summarize the projected growth in commodity shipments. Table 34 and Table 35 show the top commodities that originate in Utah. Coal is the top commodity comprising approximately 28 percent of freight tonnage and 48 percent of rail tonnage in 2011. As shown in Table 34, the amount of coal originating in Utah is expected to increase by over five million tons by 2040 with most of the increase carried by rail. However, other commodities increase at a faster rate, so coal is anticipated to account for only 19 percent of freight tonnage and 43 percent of rail tonnage by 2040. While coal will still account for the most tonnage shipped in 2040, the tonnage of metallic ores transported by rail is projected to have the largest increase of over 5.6 million tons. Basic chemicals and nonmetal mineral products are also expected to see a significant increase in the tonnage shipped by rail with shipments of each of these commodities forecast to increase by one million tons by 2040.

Table 36: Commodities with Largest Increase in Shipments Originating in Utah from 2011 to 2040

Rank	All Modes		Rail	
	Commodity	Tons (1,000)	Commodity	Tons (1,000)
1	Nonmetal min. prods.	13,764	Metallic ores	5,636
2	Waste/scrap	13,055	Coal, Coke, LNG	5,108
3	Metallic ores	10,814	Basic chemicals	3,427
4	Gravel	10,491	Nonmetal min. prods.	1,028
5	Mixed freight	8,558	Nonmetallic minerals	996
6	Misc. mfg. prods.	6,203	Waste/scrap	695
7	Coal, Coke, LNG	5,153	Fertilizers	501
8	Basic chemicals	3,768	Milled grain prods.	281
9	Nonmetallic minerals	2,760	Gravel	142
10	Gasoline	2,677	Newsprint/paper	96

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

Coal is also the top commodity to terminate in Utah, accounting for approximately 25 percent of freight tonnage and 77 percent of rail tonnage in 2011. Much of the coal that originates within Utah also terminates within Utah, with 11,259,000 tons of coal or about 76 percent that is shipped by rail staying within state. The FAF projections show that the largest increase of rail freight that will terminate in Utah will come from cereal grains, waste/scrap and plastic/rubber.

Table 37: Top Commodities Terminating in Utah by All Modes

Rank	Existing (2011)		Year 2040	
	Commodity	Tons (1,000)	Commodity	Tons (1,000)
1	Coal, Coke, LNG	39,956	Coal, Coke, LNG	40,749
2	Crude petroleum	18,448	Nonmetal min. prods.	30,287
3	Nonmetal min. prods.	14,550	Crude petroleum	23,692
4	Waste/scrap	11,842	Waste/scrap	21,285
5	Gravel	10,903	Gravel	20,760
6	Gasoline & Fuel Oils	16,251	Gasoline & Fuel Oils	19,302
7	Cereal grains	5,833	Mixed freight	9,511
8	Other foodstuffs	4,438	Cereal grains	9,271
9	Mixed freight	3,685	Other foodstuffs	6,822
10	Base metals	3,422	Misc. mfg. prods.	4,244

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

Table 38: Top Commodities Terminating in Utah by Rail

Rank	Existing (2011)		Year 2040	
	Commodity	Tons (1,000)	Commodity	Tons (1,000)
1	Coal, Coke, LNG	14,818	Coal, Coke, LNG	14,920
2	Cereal grains	895	Cereal grains	1,324
3	Base metals	695	Waste/scrap	896
4	Waste/scrap	477	Plastics/rubber	698
5	Plastics/rubber	403	Base metals	616
6	Fertilizers	373	Fertilizers	601
7	Basic chemicals	286	Wood prods.	527
8	Wood prods.	286	Basic chemicals	423
9	Other foodstuffs	164	Nonmetal min. prods.	305
10	Newsprint/paper	149	Chemical prods.	276

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

Table 39: Commodities with Largest Increase in Shipments Terminating in Utah from 2011 to 2040

Rank	All Modes		Rail	
	Commodity	Tons (1,000)	Commodity	Tons (1,000)
1	Nonmetal min. prods.	15,737	Cereal grains	429
2	Gravel	9,857	Waste/scrap	419
3	Waste/scrap	9,443	Plastics/rubber	295
4	Mixed freight	5,826	Wood prods.	242
5	Crude petroleum	5,243	Fertilizers	228
6	Cereal grains	3,438	Chemical prods.	202
7	Misc. mfg. prods.	2,943	Nonmetal min. prods.	202
8	Other foodstuffs	2,384	Coal-n.e.c.	161
9	Unknown	2,248	Basic chemicals	136
10	Machinery	2,163	Milled grain prods.	103

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

The FAF data also provides the origin and destination for existing and future rail freight shipments. Western states will continue to be significant trading partners, with Arizona projected to see the most growth in rail freight shipped from Utah because of raw materials being exported to Arizona. However, for rail imports, some of the largest increases will come from states outside the intermountain west. Louisiana, Washington, and Nebraska are among the top states for rail import growth over the next several decades because of Utah’s projected population growth and development.

Table 40: Top Destination for Rail Freight Originating in Utah

Rank	Existing (2011)		Year 2040		Growth 2011 – 2040	
	State	Tons (1,000)	State	Tons (1,000)	State	Tons (1,000)
1	Utah	12,234	Utah	12,171	Arizona	4,278
2	Idaho	7,092	Idaho	9,439	Nevada	3,791
3	California	4,058	California	6,863	California	2,806
4	Nevada	2,345	Nevada	6,136	Idaho	2,347
5	Wyoming	1,621	Arizona	5,338	Texas	1,493

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

Table 41: Top Origins for Rail Freight Terminating in Utah

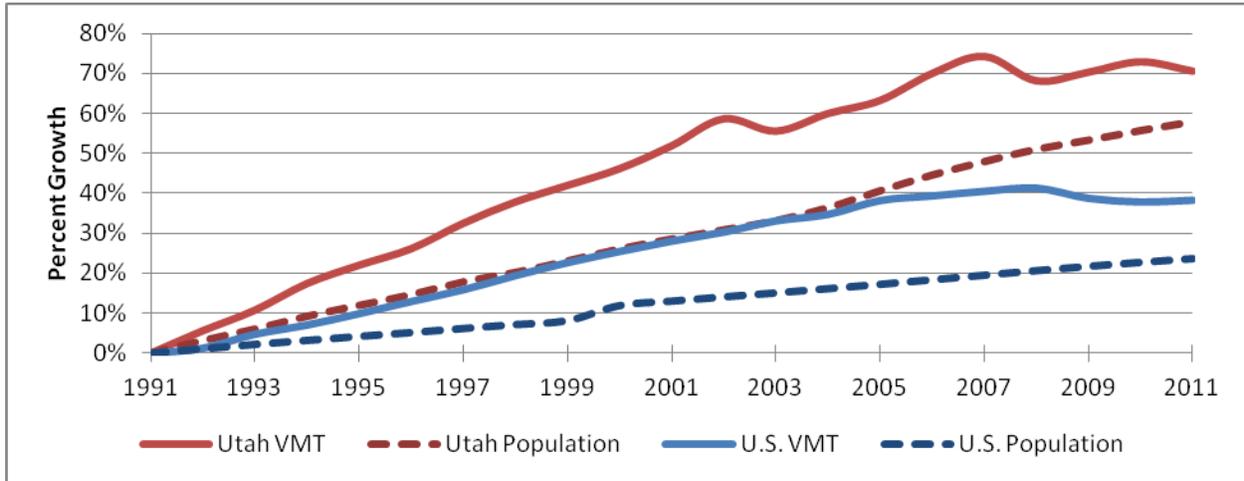
Rank	Existing (2011)		Year 2040		Growth 2011 – 2040	
	State	Tons (1,000)	State	Tons (1,000)	State	Tons (1,000)
1	Utah	12,234	Utah	12,171	Idaho	587
2	Colorado	3,514	Colorado	3,968	Colorado	453
3	Idaho	815	Idaho	1,401	Louisiana	338
4	Nebraska	508	Nebraska	686	Washington	274
5	Texas	414	Washington	533	Nebraska	179

Source: Freight Analysis Framework 3.4, Data Tabulation Tool, FHWA.

3.3 Passenger Travel Demand and Growth

In 2011, the total vehicle miles traveled (VMT) on Utah’s highways was 26.22 billion with a daily VMT of approximately 72 million. This is a 71 percent increase from 1991, when annual VMT was just over 15 billion. Over this twenty year period, daily passenger travel demand increased significantly more within Utah than the rest of nation. Daily VMT within the United States increased by a relatively modest 38 percent from 2.17 trillion in 1991 to 2.97 trillion in 2010. Both within Utah and the United States, daily VMT increased substantially more than population growth, which only increased by 58 percent within Utah and 23 percent nationwide. Figure 42 illustrates the historic VMT and population growth.

Figure 42: Historic Daily Vehicle Miles Traveled and Population Growth



Source: National Transportation Statistics 2012 Table 1-35, Bureau of Transportation Statistic. VMT Road Ownership by County, UDOT. Total Population by County: 1940 – 2009, Utah Population Estimates Committee. Annual Estimates of the Population for the United States, Regions, States, and Puerto Rico: April 1, 2010 to July 1, 2012 (NST-EST2012-01), U.S. Census Bureau, Population Division. Intercensal Estimates of the Resident Population by Sex and Age for the United States: April 1, 2000 to July 1, 2010 (US-EST00INT-01), U.S. Census Bureau, Population Division, Historical National Population Estimates: July 1, 1900 to July 1, 1999, U.S. Census Bureau, Population Division.

This trend is expected to continue based upon results from the Utah Statewide Travel Demand model. The travel demand model results indicate that VMT will double from 2008 to 2040 growing at an annual rate of 2.2 percent. These growth projections are greater than those for population, which is expected to increase by 65 percent at an annual rate of 1.7 percent as summarized in section 3.1.1.

Table 42: Forecast Vehicle Miles Traveled Growth in Utah

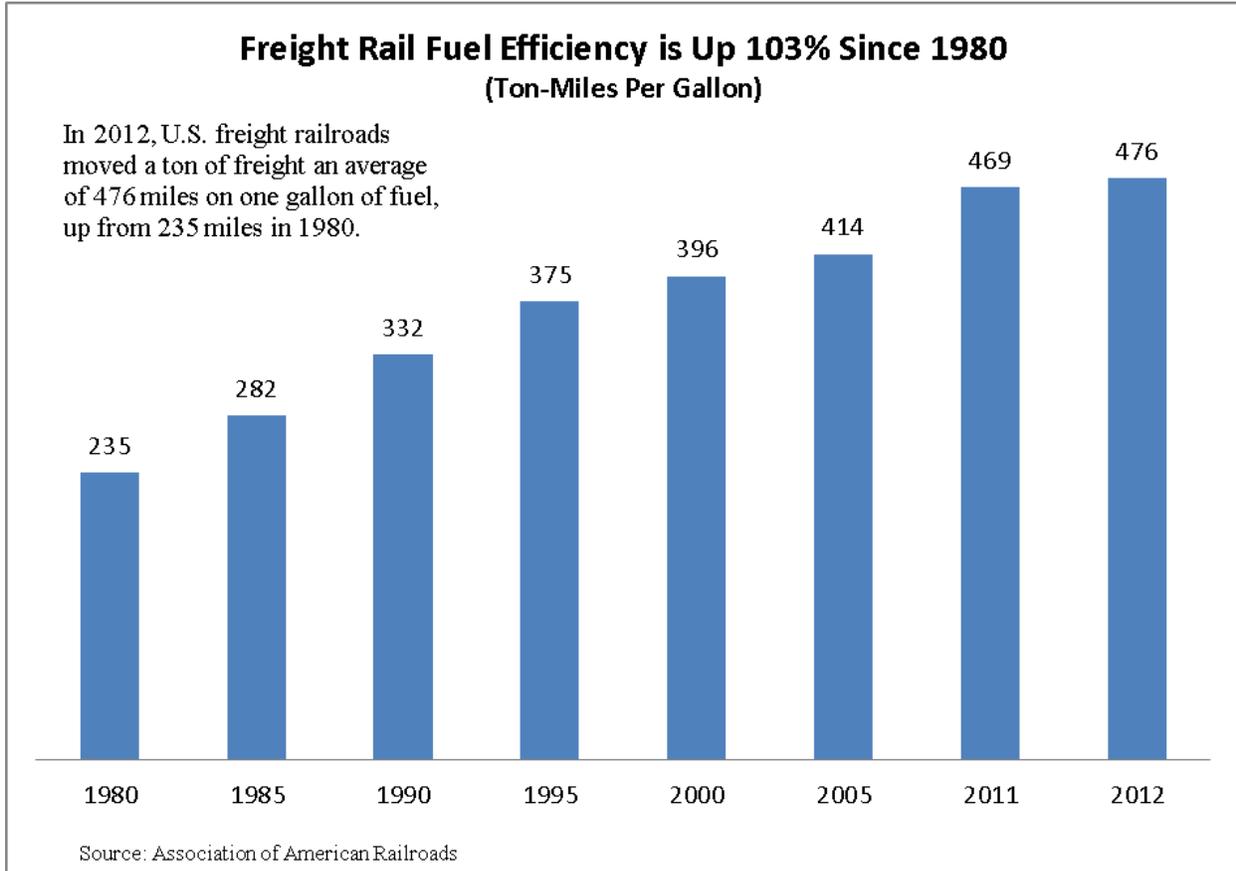
	Existing (2008)	Year 2040	Growth	Annual Growth Rate
Daily Vehicle Miles of Travel	71,539,855	143,043,101	100%	2.2%

Source: Utah Statewide Travel Demand Model Version 1.0 Beta.

3.4 Fuel Cost Trends

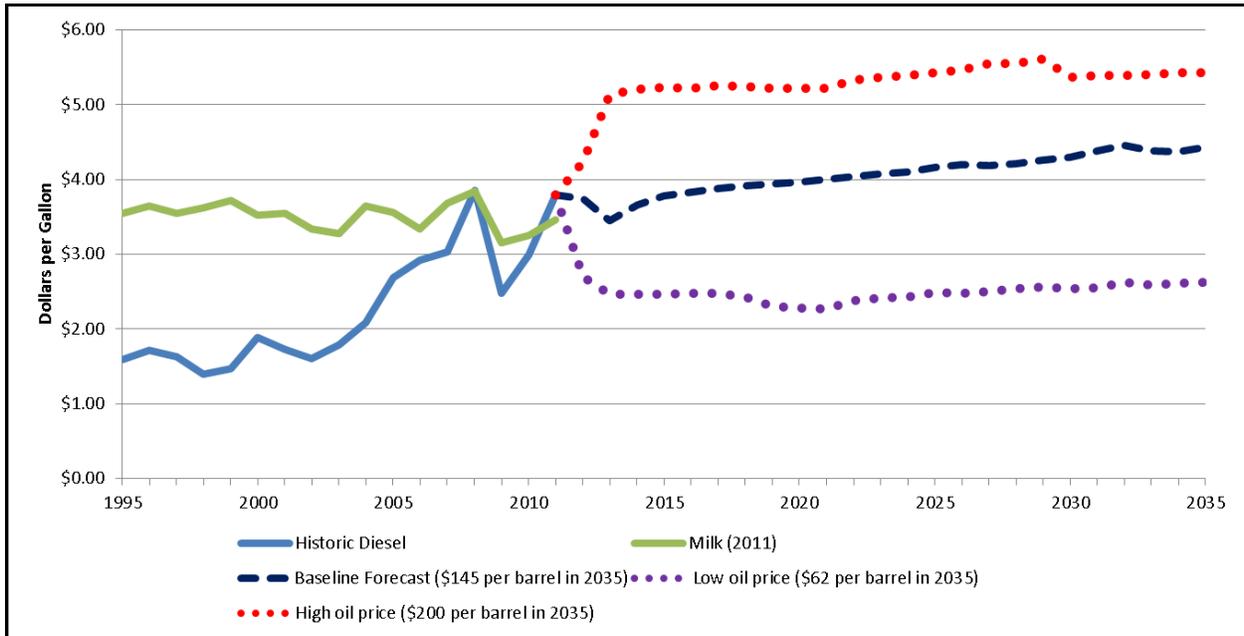
According to the Association of American Railroads (AAR), on average, rail is four times more fuel efficient than trucks. In 2012 railroads moved a ton of freight an average of 476 miles per gallon of fuel. That is an increase from 241 miles per gallon of fuel in 1980 or an efficiency gain of 103 percent. Since rail provides a cost-effective and ever more efficient mode of transportation, increases in the price of fuel will likely drive demand for freight and passenger rail services.

Figure 43: Freight Rail Fuel Efficiency



Based upon data from the Energy Information Administration (EIA), the price of diesel has increased from an annual average of \$1.32 per gallon in 2002 to almost four dollars per gallon (\$3.97) in 2012, an increase of more than 200 percent. The price of diesel is projected to keep increasing through 2035. Figure 44 provides the historic and forecast diesel prices in 2010 dollars from the EIA. Until recently, the price of a gallon of milk cost significantly more than diesel. However, as of 2009 the price of diesel has been close to that of milk and the real price of diesel is expected to continue increasing to \$4.44 per gallon in 2035 under baseline assumptions. If the price of crude oil increases to \$200 a barrel (2010 dollars), diesel is anticipated to cost \$5.43 a gallon in 2035.

Figure 44: Historic and Forecast Diesel Price (2010 dollars)



Source: Weekly Retail Gasoline and Diesel Prices, U.S. Energy Information Administration. Annual Energy Outlook 2012, U.S. Energy Information Administration. Consumer Price Index, Bureau of Labor Statistics.

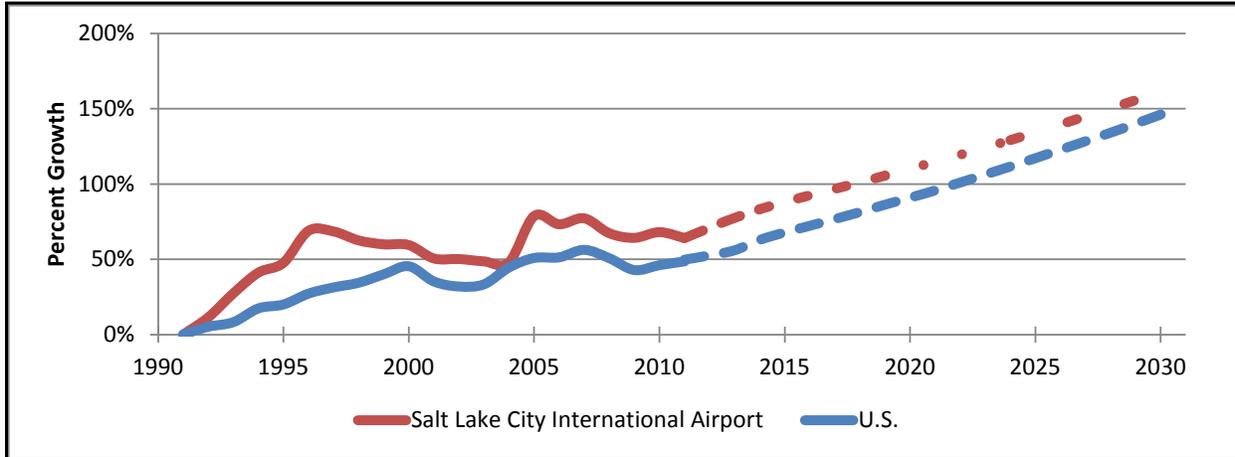
3.5 Airport and Highway Congestion Trends

3.5.1 Airport Congestion

The Ogden-Hinckley Airport, Provo Airport, Salt Lake City International Airport and St. George Municipal Airport are the four primary commercial airports within Utah. Of these airports, Salt Lake City International Airport is the major airport within the state accounting for over 99 percent of the boardings. In 2012, more than 20 million passengers passed through Salt Lake City International making it the 26th busiest airport in North America and 64th busiest in the world in terms of passengers. Although Salt Lake City International handles considerable traffic, in 2012 it ranked first for on-time arrivals and departures according to Bureau of Transportation Statistics (BTS) data.

While there are currently limited delays, the number of passengers is forecast to increase by almost 60 percent by 2030. Salt Lake City International will need to plan for expansion as passenger demand grows. Rail can provide an alternative for movement of both freight and passenger traffic, while reducing the pressure on available aviation infrastructure.

Figure 45: Historic and Forecast Growth in Commercial Airline Boardings

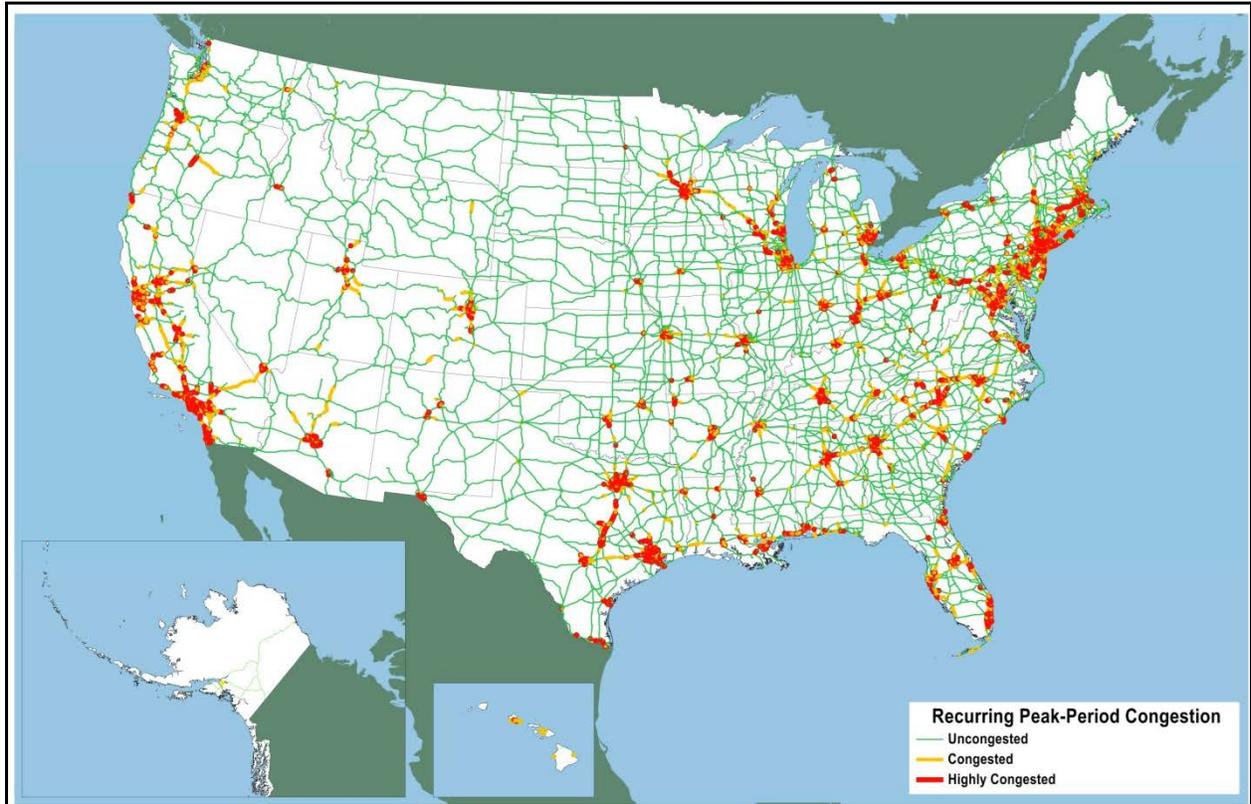


Source: Passenger Boarding (Enplanement) and All-Cargo Data for U.S. Airports, Federal Aviation Administration. Appendix A Aviation Demand Forecasts, Salt Lake City International Airport Environmental Assessment. FAA Aerospace Forecasts FY 2012-2032, Federal Aviation Administration.

3.5.2 Highway Congestion

With the forecast growth in population, freight and passenger demand, the transportation network will need to accommodate a significant increase in passenger and freight movements. This increased demand will stress the state highway system, which already has significant congestion within the urbanized area as illustrated in Figures 46 and 47, which show existing and forecast congestion. Rail offers an opportunity to divert freight and passenger traffic from highways to rail.

Figure 46: Peak-Period Congestion on the National Highway System - 2007



http://www.ops.fhwa.dot.gov/Freight/freight_analysis/nat_freight_stats/docs/12factsfigures/figure3_15.htm
December 30, 2014.

Figure 47: Peak-Period Congestion on the National Highway System - 2040



http://www.ops.fhwa.dot.gov/Freight/freight_analysis/nat_freight_stats/docs/12factsfigures/figure3_16.htm December 30, 2014.

3.6 Land Use Trends

In communities throughout Utah, greenfield development has resulted in increased traffic, increased transportation needs and reduction in the amount of open space. However, many communities have embraced a vision that will support the development of passenger rail service within the State. In 2010, the metropolitan planning organization for Davis, Salt Lake and Weber Counties adopted Wasatch Choice for 2040. Wasatch Choice for 2040 used residents, technical experts and elected officials to identify growth principals to guide development and make the transportation network more cost-effective and efficient. The vision focuses on in-fill development with mixed-use village and large economic centers linked by an efficient transportation network. Rail can be a vital component in developing this network by working as a catalyst for redevelopment and infill development that facilitates pedestrian mobility, while reducing automobile dependence.

Chapter 4 – The State’s Existing Rail System: Rail Service Needs and Opportunities

Objective: Identify the needs and opportunities for passenger and freight rail service in the State.

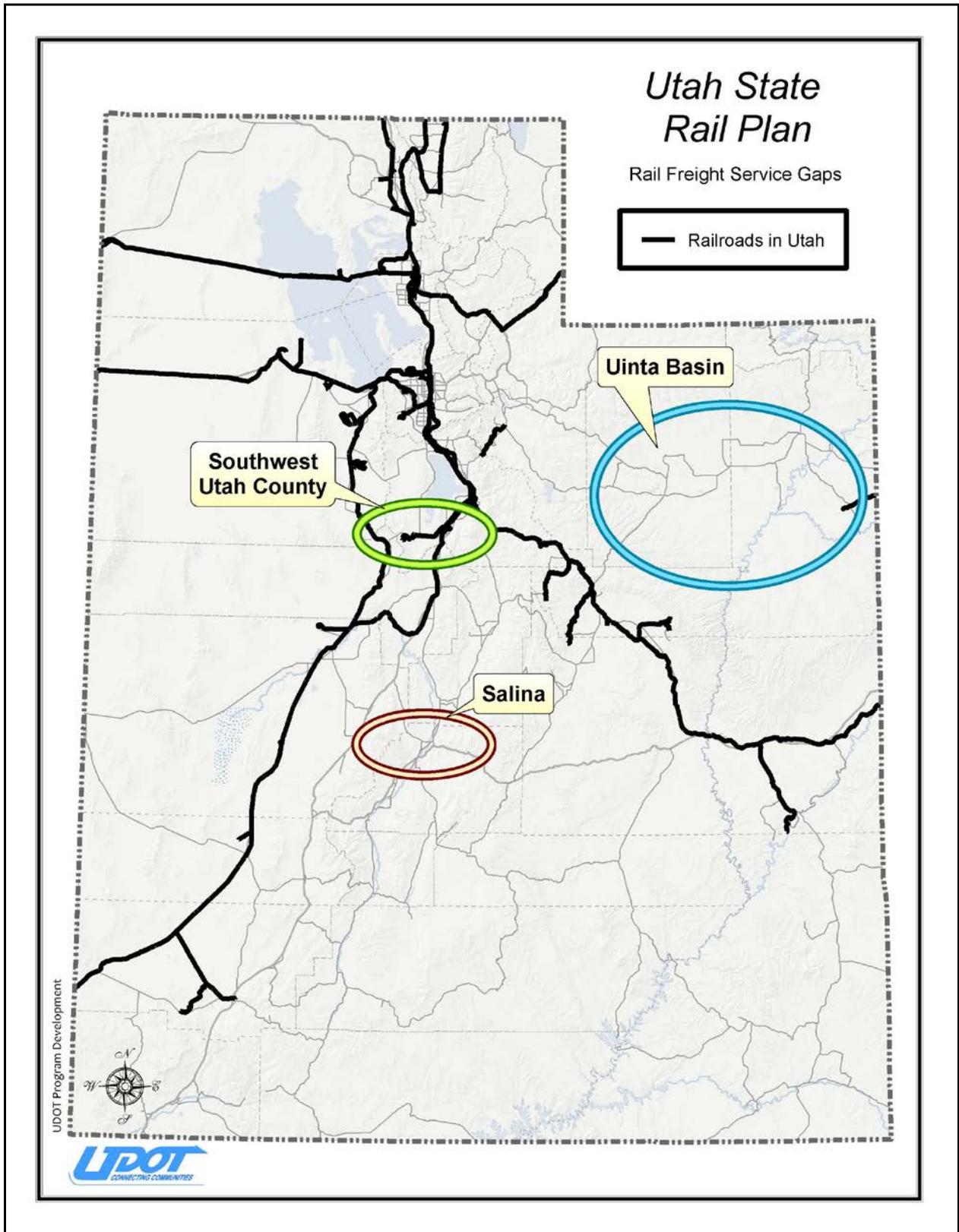
4.1 Based on the findings in Chapters 1 through 3, summarize the key issues, service gaps, improvement needs, including connectivity to other modes, and financial deficits facing the State’s rail system. Identify the opportunities to address those issues, gaps, needs, and deficits for freight, intercity, and commuter rail. The rationale and basis for the rail improvements proposed in Chapters 5 and 6 should be presented, included projected shifts in the nature and type of passenger and freight movement and emerging markets

4.1.1 Freight rail summary with gaps, needs, financial deficits and opportunities

4.1.1.1 Potential freight rail service gaps in Utah

1. Direct railroad freight service to the resource-rich Uinta Basin region in northeastern Utah. See Chapter 6 of the Utah State Rail Plan (USRP) for more information.
2. Closer rail freight service to Utah’s largest coal mine, the Sufco Mine, located east of Salina off I-70. (See Central Utah Rail Project in Chapter 6.)
3. Reintroduce rail freight service to southwest Utah County for agriculture, mining, and manufacturing. This is associated with the proposed reactivation of UP’s former Tintic Branch by a short line railroad, in order to attract development in that part of Utah County. State and county development agencies have been approached in recent years by business entities expressing interest in locating along this line if it is reactivated.

Figure 48: Potential Rail Freight Service Gaps



4.1.1.2 Potential rail freight service needs in Utah

The regional and short line railroads in Utah account for a relatively small amount of the total rail infrastructure in the state. As the state's primary rail freight carrier, UP is the dominant owner/operator of most of Utah's freight railroad lines. As a result of UP's on-going capital investment in their infrastructure and operations, there are currently no major rail freight service needs in Utah.

According to the latest UP data, in 2013 UP invested \$91.9 million in capital improvements in the state of Utah. From 2007 to 2013, UP invested more than \$21.6 billion in its network and operations across its 23-state system to support transportation infrastructure. This represents a substantial financial commitment by a private sector, non-government funded corporation in the future of rail freight service in Utah and America. UP's expanding freight business in Utah reflects an improving economy and the inherent efficiencies of rail freight transportation.

One of the primary goals of departments of transportation across the nation is the safe and efficient movement of highway traffic, while at the same time strengthening their economy. MPOs and local governments also share in these goals. Here in Utah, the following are frequently communicated to governmental jurisdictions regarding railroad operations by both the general public and business community.

1. The amount of time it takes for mainline and local trains to clear at-grade railroad crossings is too long.
2. The frequency of railroad switching operations that impede highway traffic as well as bicycle and pedestrian movements is too often.
3. Diversion of freight traffic from rail to highway as a result of railroad service gaps or inadequacies, such as rail line abandonments or rail service problems, cannot be sustained.

A top priority of state and local governments is their ability to maintain and grow their economies. Freight transportation, including railroads, is the vital link between those economies and both foreign and domestic markets. As a result, maintaining railroad freight service to a community or area is likewise a priority to state and local governments.

One of the most important and beneficial efficiencies in transporting freight by rail is the ability to operate fewer but longer trains. Long freight trains are frequently operated by the nation's railroads, reflecting the operational requirements of shippers and of the railroads themselves. Along with the efficiencies and cost savings associated with these longer freight trains come impacts associated with the handling of these trains at railroad yards, crew change terminals, and fueling facilities, as well as out on the mainlines that link such facilities across the nation. Longer trains often require

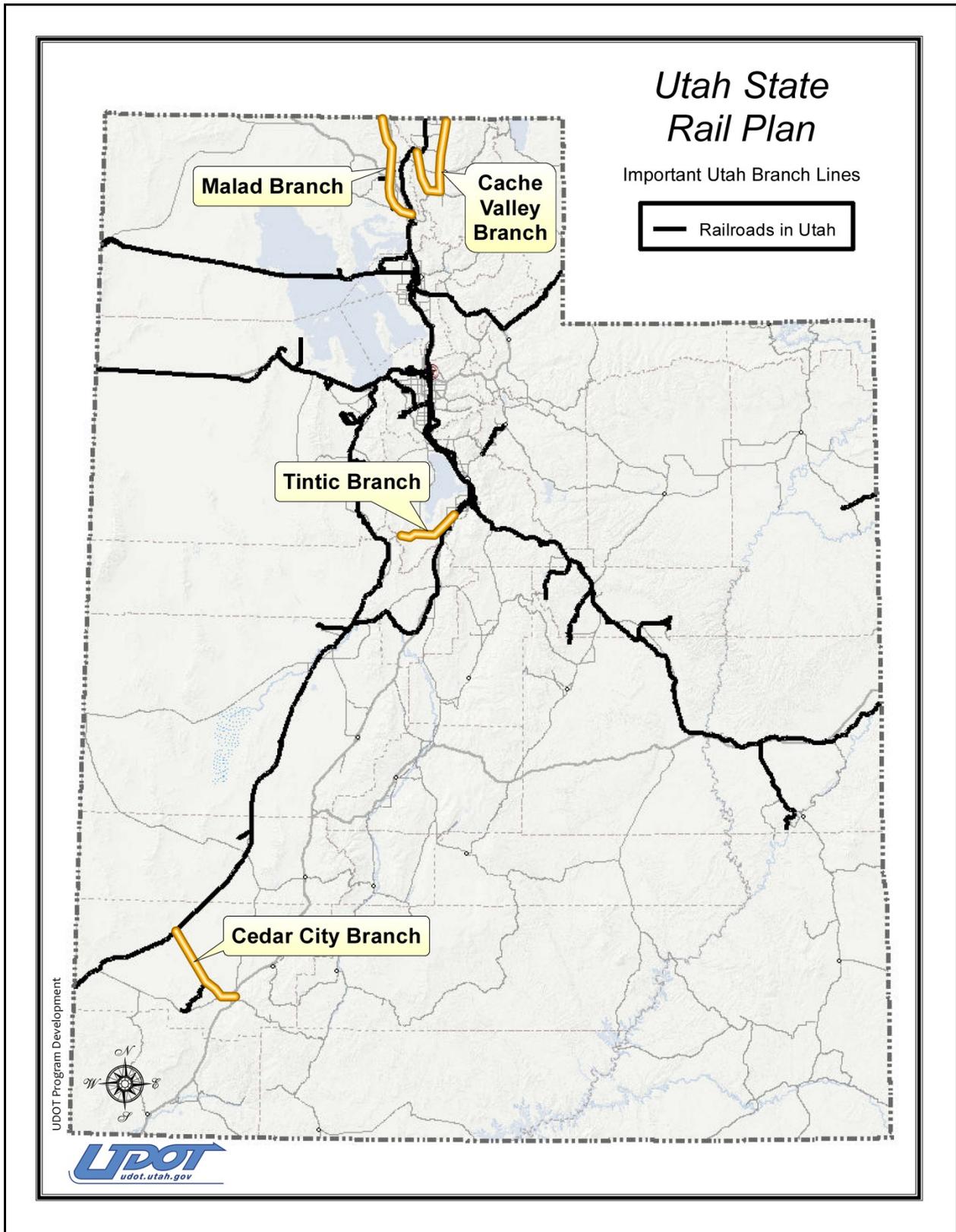
infrastructure investments to facilitate their operation such as expanded yard and terminal facilities as well as longer passing sidings on single-track mainlines.

Here in Utah, the most frequent incidents of long railroad crossing blockages due to longer freight trains, as well as terminal switching of long cuts of freight cars, are found at highway-rail at-grade crossings. These impacts are most frequently experienced at crossings located near UP's primary freight facilities at Salt Lake City's Roper Yard, North Yard, and at the Salt Lake City (Freight) Intermodal Terminal.

In contrast with the large freight trains that are the hallmark of long-haul mainline rail freight operations, lightly-used branch lines and industrial leads are important freight feeders to those big mainline trains. In Utah, as in other states, branch lines and industrial leads provide important freight links between mainline train service and smaller rural and urban shippers. Such lightly-used lines are vital to the current and future economic well-being of the areas and communities they serve, and to the state as a whole. In Utah there are several branch lines such as the Cache Valley Branch, Malad Branch, Cedar City Branch and the currently inactive Tintic Branch that figure prominently in the future growth and business development of the communities served by those lines.

Special Note: The UP continually evaluates factors such as, but not limited to, train size, length of sidings, etc. This analysis is considered proprietary information by UP that is not shared with UDOT. Outside economic influences, internal capital priorities in other regions served and in many cases the private marketplace, drive railroad capital investments on a case by case, and often a customer specific, basis. The history, depth and scope of private sector railroad capital investment since the industry was deregulated in 1980 illustrate this very well.

Figure 49: Important Utah Branch Lines



4.1.1.3 Financial deficits and opportunities.

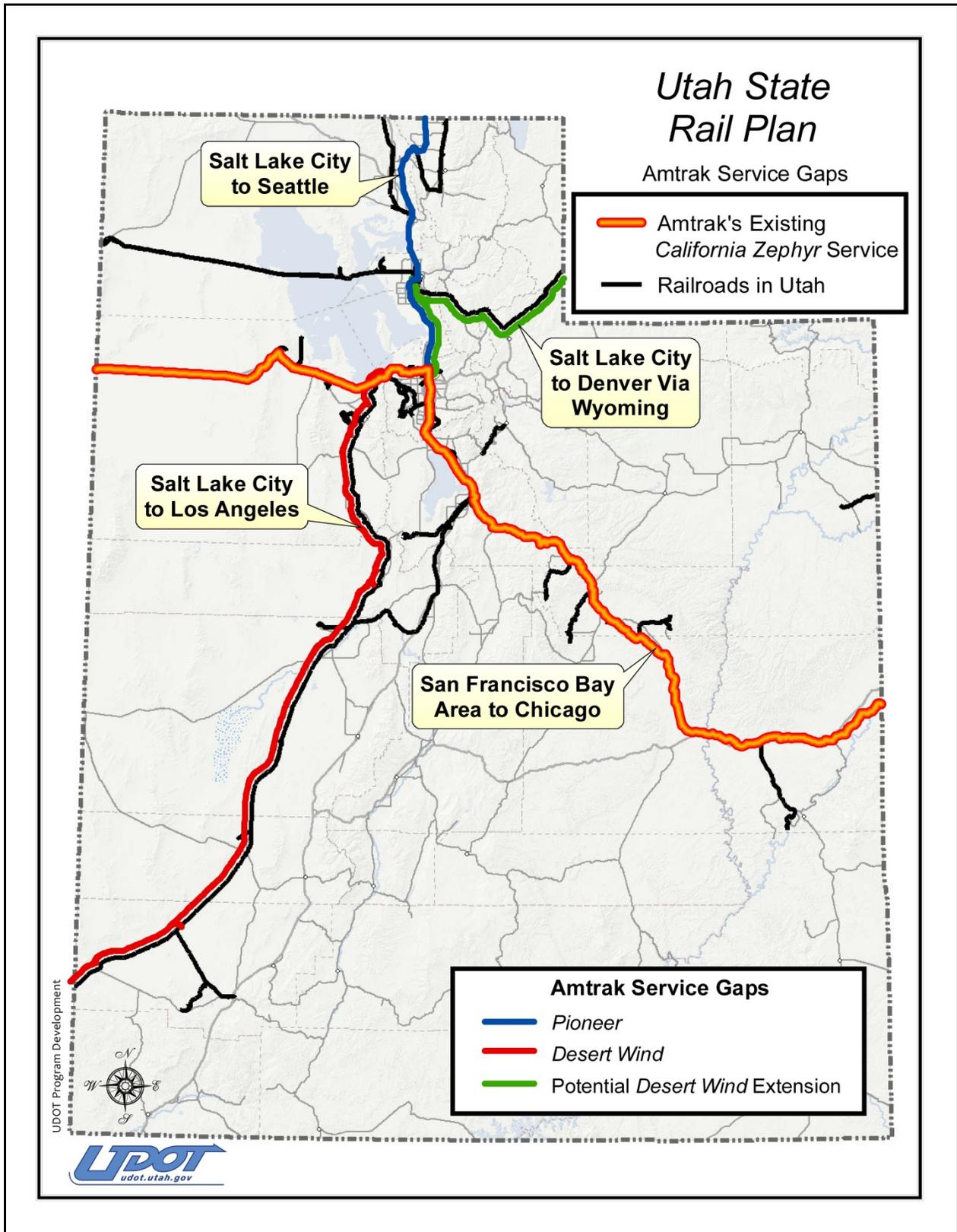
None.

4.2 Intercity passenger rail summary with gaps, needs, financial deficits and opportunities

4.2.1 Potential Amtrak intercity passenger rail service gaps in Utah

1. Intercity rail passenger service between Salt Lake City, Las Vegas, and Los Angeles as a national network passenger train with through-car connections to the existing *California Zephyr* in Salt Lake City. This train would be similar to the discontinued *Desert Wind*. See number 3 below.
2. Intercity rail passenger service between Salt Lake City, Boise, Portland, and Seattle as a national network passenger train. This train would be similar to the discontinued *Pioneer* as it existed prior to 1991.
3. Intercity rail passenger service from Salt Lake City to Denver via Ogden, Rock Springs and Laramie, Wyoming. This could be an extension of a reinstated Amtrak *Desert Wind*.
4. Investigate the feasibility of intrastate passenger rail service between Salt Lake City and Cedar City via Milford, with connecting motor coach bus service from Cedar City to St. George.
5. Both new and existing intercity passenger train service would benefit from a focus on full-service station facilities to cater to domestic and international tourism, rather than the temporary bus-shelter-type stations that were provided along the routes of the Amtrak *Pioneer* and *Desert Wind* passenger trains during their nearly twenty years of operation. Wherever possible existing and future intercity rail passenger stations would benefit from serving as passenger intermodal facilities for other passenger carriers serving the areas where those stations are located.
6. Expanded intercity rail passenger service options in Utah will enhance tourism opportunities by providing foreign and domestic visitors with non-auto options for accessing many of Utah's historic and natural attractions.

Figure 50: Potential Amtrak Intercity Passenger Rail Service Gaps

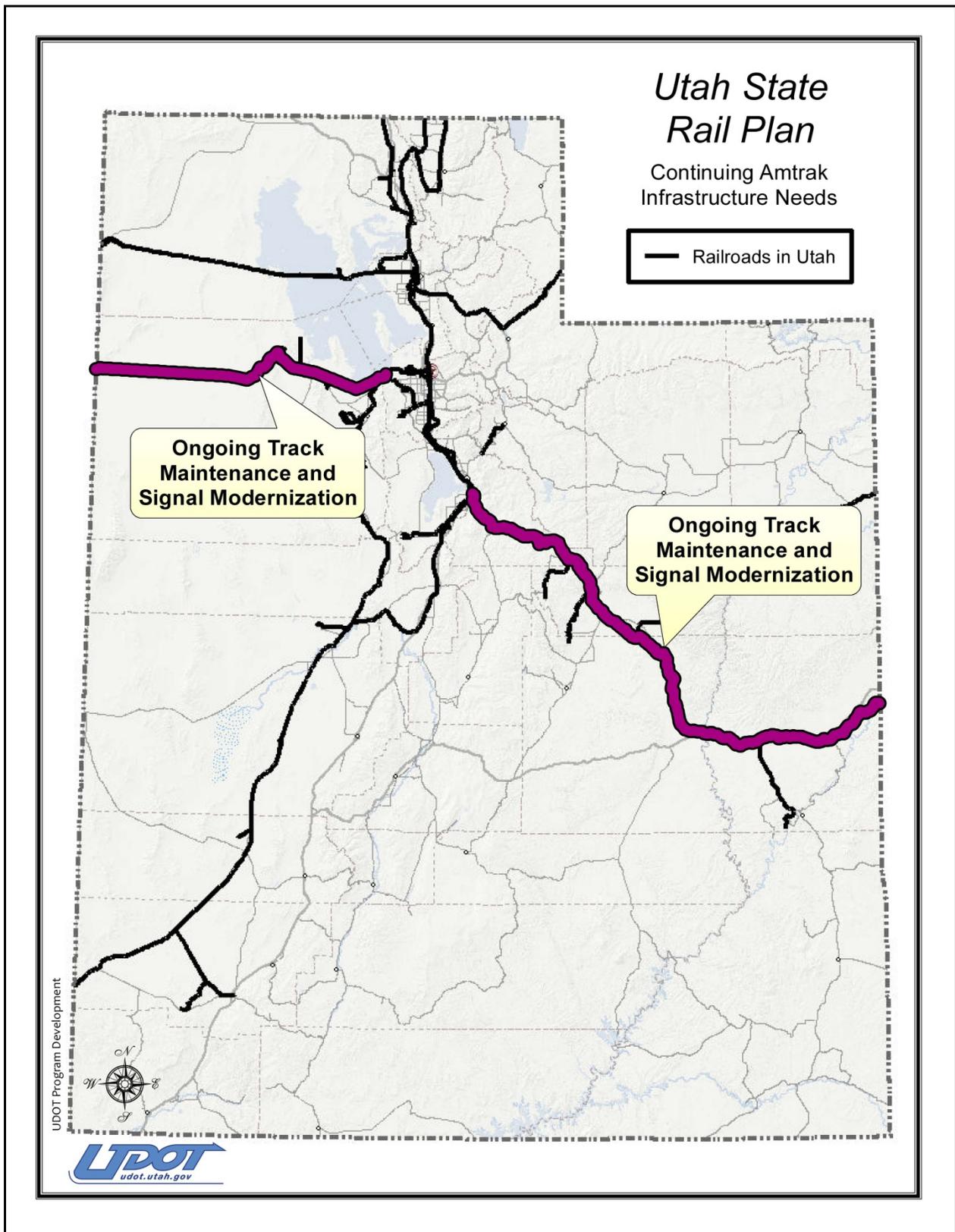


4.2.2 Potential intercity passenger rail service needs in Utah.

1. Continue on-going track maintenance and signal modernization on UP's Rio Grande mainline from Provo to Grand Junction.
2. Continue on-going track maintenance and signal modernization on UP's Feather River Route mainline from Smelter Junction west of Salt Lake City to Wendover. Both of these projects are improving safety and operational reliability on the two routes in question over which Amtrak's *California Zephyr* operates.
3. Establishment of a permanent, full-service Amtrak station in downtown Salt Lake City to replace the existing temporary modular facility that has served intercity rail passengers since 1999.
4. Investigate the feasibility of establishing a new suburban stop on the route of the *California Zephyr* between Salt Lake City and Provo at or near the Thanksgiving Point development in Lehi, Utah.
5. Investigate the feasibility of establishing a new station stop for the *California Zephyr* in Wendover, Utah or the adjacent community of West Wendover, Nevada.

Special Note: It is important to note that the public benefit of expanded rail passenger service appropriately follows public investment related to that service. At present, all existing and potential conventional intercity passenger train operations use private freight railroad lines. These existing and potential passenger train services are separate and apart from private freight rail planning and investment, and would rely on public interest and investment to move forward.

Figure 51: Continuing Amtrak Infrastructure Needs



4.2.3 Financial deficits and opportunities

None.

4.3 Commuter rail summary with gaps, needs, financial deficits and opportunities

UTA provides multi-modal service to a six-county Transit District that lies primarily along the area known as the Wasatch Front. UTA began commuter rail service between Salt Lake City and Pleasant View in 2008, serving Salt Lake, Davis, and Weber Counties. In 2012, commuter rail service was extended south into Utah County, providing continuous service between Provo and Pleasant View, directly serving the four most populous counties in the state of Utah.

UTAs primary source of funds is a transit sales tax collected in each county within the transit district. Sales tax receipts make up about 66 percent of UTAs operating revenue. Voters passed county-wide sales tax initiatives in Davis, Salt Lake, and Weber (2000) and Salt Lake and Utah (2006), in part, to fund the construction and operation of commuter rail service. Currently, as shown in the table below, the rate of sales tax varies by county. System-wide, these sales tax revenues cover both operating and capital costs.

Table 43: Utah Transit Authority 2014 Sales Tax by County

County	2014 Sales Tax
Box Elder	0.55
Davis	0.55
Salt Lake	0.6875
Tooele	0.3
Utah	0.55
Weber	0.55

4.3.1 Potential commuter rail service gaps in Utah

1. Commuter rail service on Sundays.
2. Commuter rail service from Pleasant View to Brigham City.
3. Commuter rail service from Provo to Santaquin.

4.3.1.1 Long range future commuter rail service.

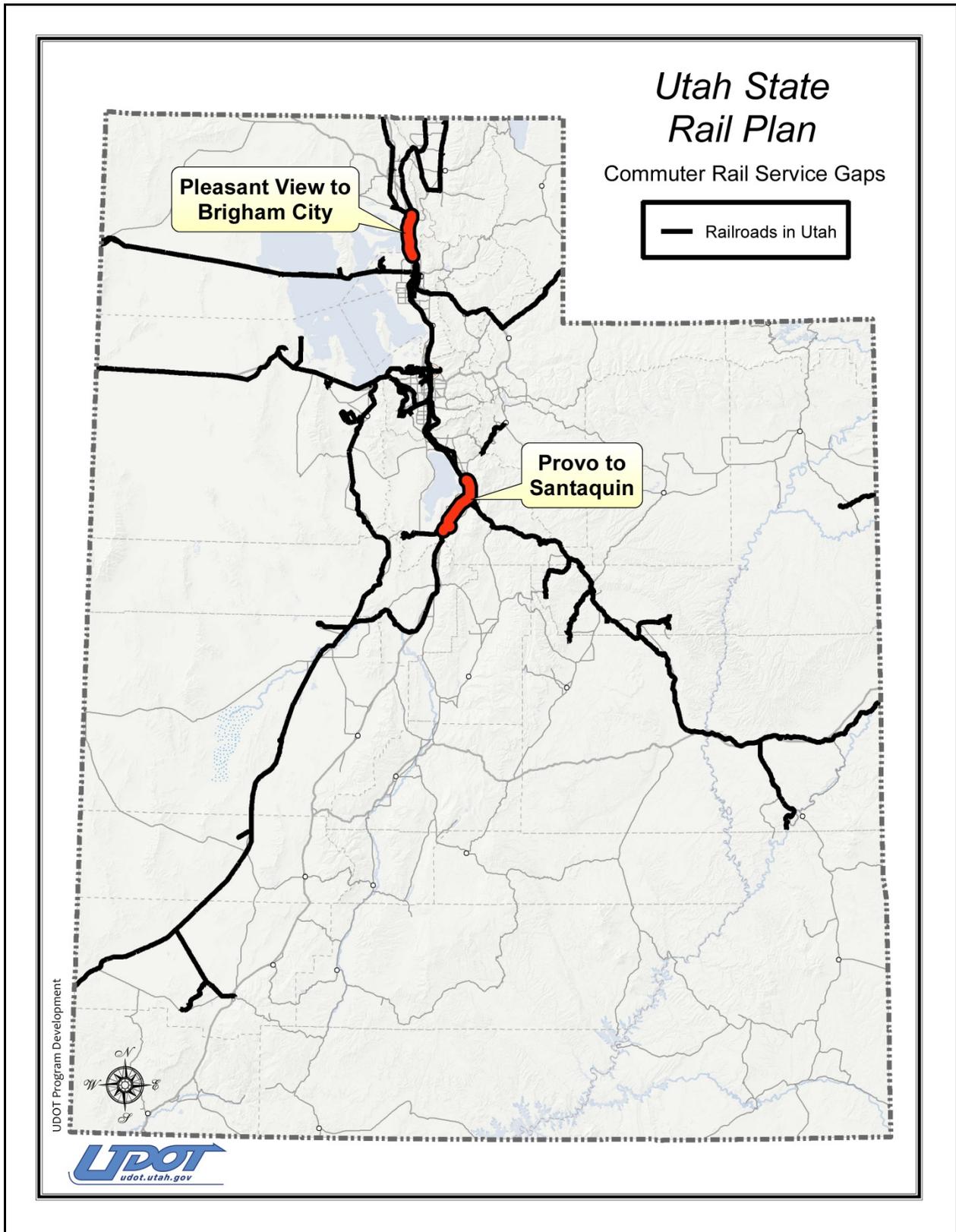
Looking beyond the current planning horizon, if future population growth continues as projected, the following additions of commuter rail service may be considered.

1. Brigham City to Tremonton.
2. Salt Lake City to Tooele.
3. Santaquin to Nephi.

Utah State Rail Plan 2015

It is important to note that at present these possible future commuter rail additions are outside UTA's existing rail service area. Therefore, a vote by the residents of those counties and UTA's Board of Directors would be required before expansion of services could occur.

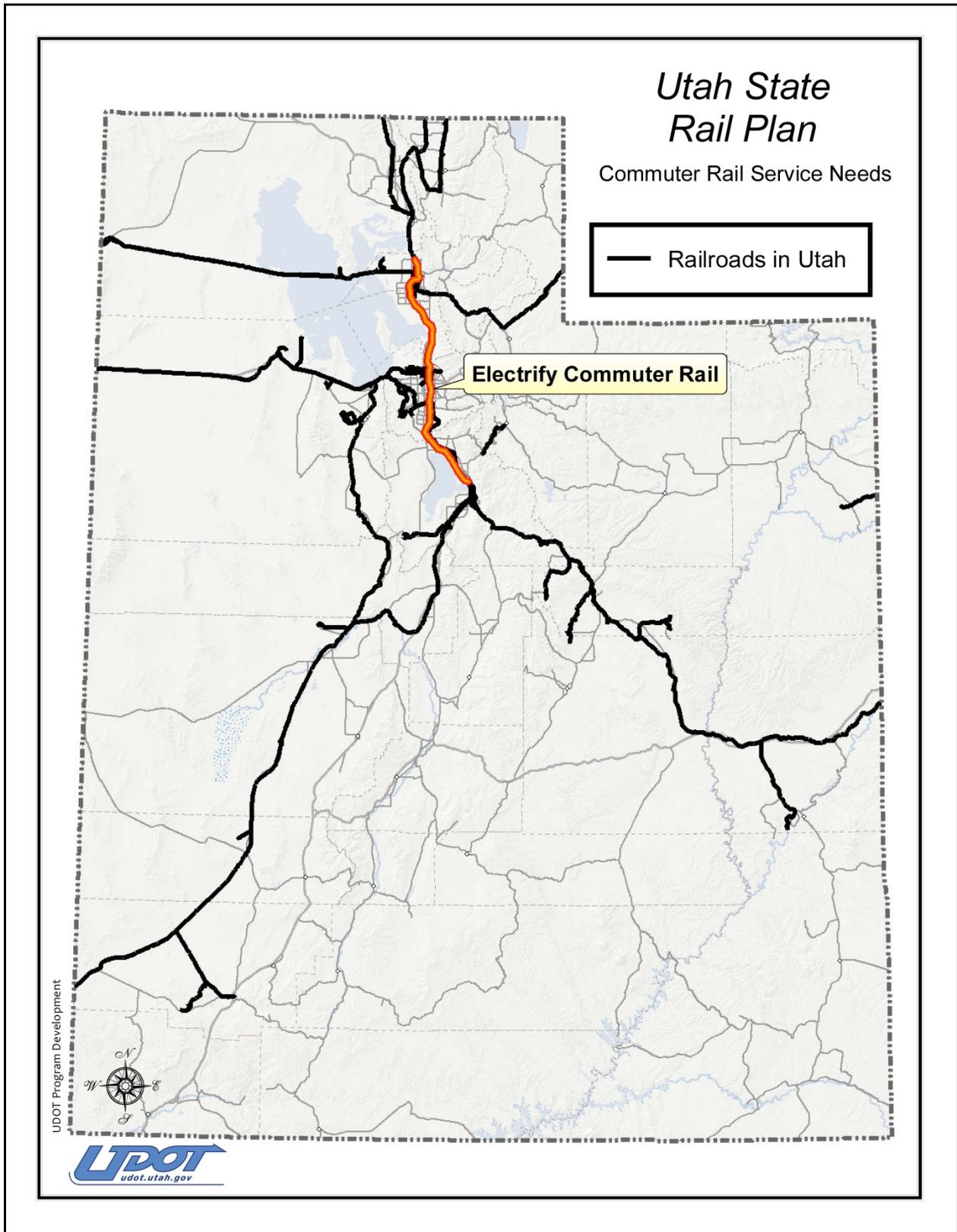
Figure 52: Potential Commuter Rail Passenger Service Gaps



4.3.2 Potential commuter rail service needs in Utah.

1. Conversion of *FrontRunner* commuter rail service from diesel to electric power.
2. Conversion of at-grade crossings to grade separated crossings to allow for higher speeds.

Figure 53: Potential Commuter Rail Passenger Service Needs



4.3.3 Financial deficits and opportunities

1. UTA's *FrontRunner* service has no capital financial deficits.

4.4 Opportunities Tourism Support

4.4.1 Amtrak

With five national parks, seven national monuments, two national recreation areas, and one national historic site, Utah is a prime national and international tourism destination. However, most out of the state or international tourists rely on auto and air travel to reach Utah and its scenic attractions. Unlike other areas in the western United States, Utah does not have rail passenger service that lends itself to being used by our domestic or international visitors. Amtrak's sole remaining train serving the mountain west region, the Chicago to San Francisco Bay Area *California Zephyr*, is not scheduled or equipped to cater to the majority of those wishing to visit Utah.

As was identified in the Amtrak Five Year Plan 1975 – 1980, for long distance trains to be fully viable, a minimum of three frequencies each day are required to provide travel time choice and daytime service over all segments of each long distance passenger train route. Amtrak's elimination of the Salt Lake City to Seattle *Pioneer* and Salt Lake City to Los Angeles *Desert Wind* passenger trains in 1997 eliminated Utah's passenger rail hub status, and also removed two important routes from further service and frequency enhancements. The remaining *California Zephyr* passes through most of Utah during night time hours. For example, Utah's only full service, manned Amtrak station is Salt Lake City, where the westbound *California Zephyr* is scheduled late in the evening while the eastbound *California Zephyr* serves Salt Lake City in the very early morning.

Various internal Amtrak studies in the early and mid-1980's identified the popularity of the system's long distance trains with foreign tourists. In many cases tourists were intimidated by the vast distances one must drive when visiting western America. Although there are no intrastate routes in Utah that lend themselves to state-funded intrastate passenger trains, a renewed focus by Amtrak on improving and expanding its long distance passenger train network would improve Utah's accessibility to rail-based tourism.

4.4.2 Heber Valley Railroad

As Utah's only tourist railroad, the Heber Valley Railroad has long been a popular tourist attraction located adjacent to the Wasatch Front population corridor. After playing an important role in the 2002 Salt Lake Winter Olympic Games, the Heber Valley Railroad's primary challenge today is in securing adequate and sustained funding to

maintain its operation. The Heber Valley Railroad runs several types of tourist trains, including special “theme” trains at different times of the year, and is a very popular attraction for both Utahns and tourists visiting this region. The Heber Valley Railroad is also important to the Utah Film Commission since a number of films have used the railroad’s historic trains and locomotives.

Chapter 5 – Proposed Passenger Rail Improvements and Investments

Objective: Describe the improvements and investments that could address the passenger rail needs of the State.

5.1 For the intercity and commuter passenger opportunities described in Chapter 4, describe in summary terms all passenger rail proposals under consideration, including new services, station improvements, improved intermodal connections to other passenger modes, state of good repair projects, rolling stock improvements, and unfunded concepts. Identify projects as service changes or physical improvements and whether they are improvements or new additions to the existing rail network in the State. Organized by corridor and type of service (i.e. intercity, commuter or both), describe how each proposal would address gaps in service and financial deficits identified in Chapter 4, identify potential operating subsidies and sources, identify efforts to mitigate external costs (e.g. noise and grade crossing closures), and reference relevant studies and reports.

As has already been explained in this plan, the state of Utah, aside from the projects outlined by UTA, has not traditionally and does not plan at this time to become a financial or operating entity in terms of rail passenger service in the state.

In Chapter 4 rail service gaps, needs and opportunities were identified involving both freight and passenger rail service in Utah. The state of Utah leaves such matters to the private sector in terms of rail freight improvements, and to those responsible agencies such as UTA and Amtrak for passenger rail projects. Inasmuch as this chapter deals specifically with intercity/commuter rail improvements, this chapter will focus on those beyond what has already been identified in previous chapters.

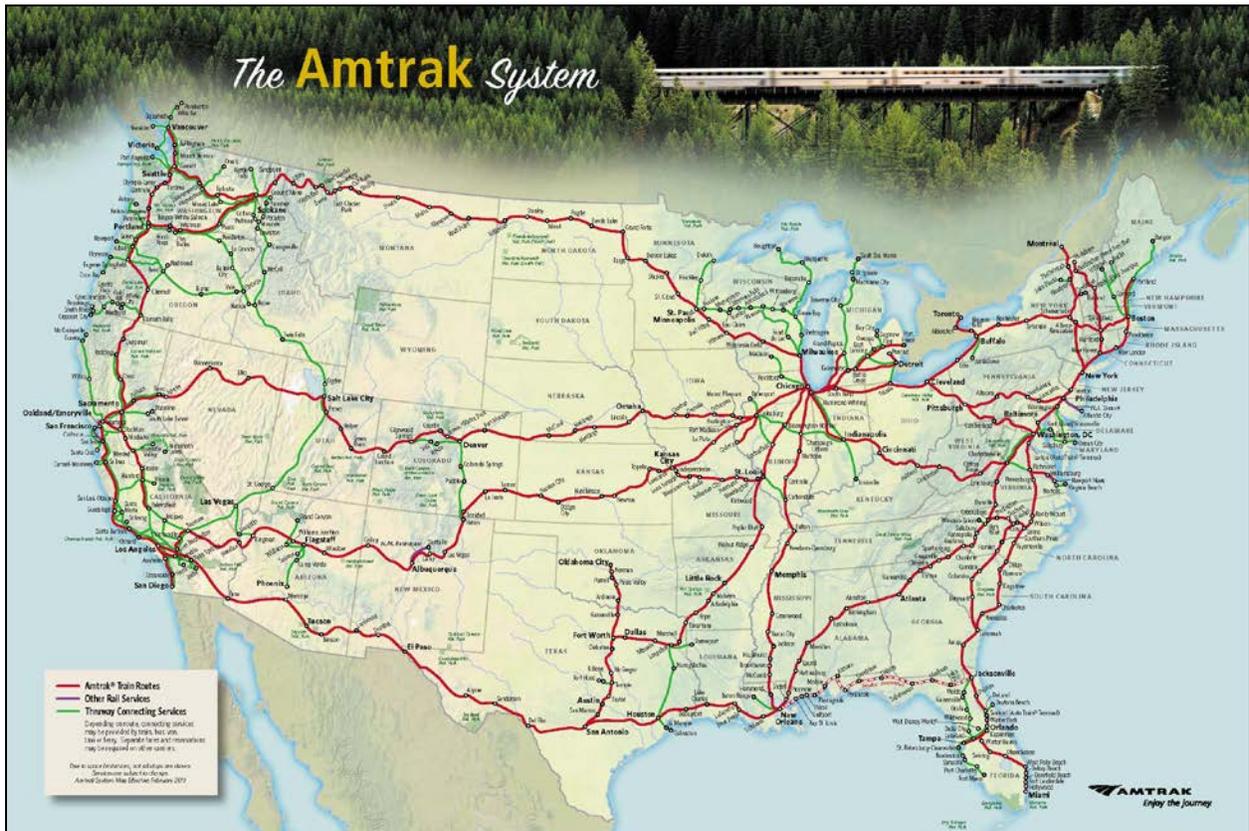
5.2 Amtrak Intercity Passenger Rail Improvements and Investments

Since the 1970's many states have become financially involved in the operation of intercity passenger trains within their own state or in multi-state short and medium distance corridors. California's extensive network of state-funded passenger trains is perhaps the best example of this, while Oregon and Washington's Pacific Northwest Corridor operation between Eugene, Oregon in the south and Vancouver, British Columbia Canada in the north is another prime example of multi-state-supported corridor service.

Utah has never involved itself in state-supported intercity rail passenger service for several reasons. First, as a fiscally conservative state, Utah has traditionally not invested state tax dollars in what could be considered private sector activities and services.

Second, owing to the geographical issues already covered earlier in this plan, as well as how Utah's communities and ground transportation links evolved, viable city pairs with existing rail infrastructure linking them do not exist outside the Wasatch Front population corridor. As such, Utah is currently not a candidate for state funded conventional intercity passenger train service such as that found in California and many other states. The Wasatch Front population corridor is served by UTA's current and future *FrontRunner* commuter rail operation. Potential future developments in high speed rail transportation may alter Utah's current intercity rail passenger service.

Figure 54: Amtrak System Map



Source: http://www.amtrak.com/ccurl/948/674/System0211_101web,0.pdf

5.2.1 Pioneer Route

It is important to note that the green lines linking Salt Lake City with the Pacific Northwest as well as Southern California, as shown in Figure 54, are buses and not trains.

In 2009, Amtrak studied the feasibility of restoring service of the *Pioneer*, which ran between Chicago and Seattle via Denver and Salt Lake City, from 1977 to 1997. This study, titled "Pioneer Route Passenger Rail Study" was required by Section 224 of PRIIA. The agency looked at four potential routes that included different combinations of

Denver, Salt Lake City, Portland and Seattle. Passenger miles per train mile ranged from 77 (Denver to Portland) to 131 (Salt Lake to Seattle). Fare box recovery ranged from 20.6 percent (Denver to Seattle) to 31.7 percent (Salt Lake City to Seattle). The report noted that the projected fare box recoveries for the various *Pioneer* options are significantly lower than the average fare box recovery for Amtrak long distance trains in Fiscal Year 2008 (51.8 percent).

Amtrak concluded:

Restoration of the *Pioneer* would enhance Amtrak's route network and produce public benefits, but would require significant expenditures for initial capital costs and ongoing operating costs not covered by fare box revenues... Amtrak supports strengthening and improving the national network of long distance trains but will need significant additional funding to expand operations beyond today's current services. Thus, Amtrak recommends that federal and state policymakers determine if intercity passenger rail service along the former *Pioneer* route should be reintroduced and, if so, that they identify the preferred option for service restoration and provide the required levels of capital and operating funding to Amtrak.

5.3 Commuter Rail Plans

5.3.1 Existing Network

UTA opened the *FrontRunner* commuter rail service in 2008. The initial 44-mile line ran from Ogden in the north to Salt Lake City in the south, with stations in between at Woods Cross, Farmington, Layton, Clearfield, and Roy. A 45-mile extension from Salt Lake City south to Provo opened in 2012, with stations in Murray, South Jordan, Draper, Lehi, American Fork, Orem, and Provo. A Pleasant View station was also added to the north end of the line. The *FrontRunner* diesel locomotive powered push/pull trains are often bi-level and can achieve speeds of up to 79 miles per hour, based on Federal rail speed limits. The *FrontRunner* replaced some peak-hour express buses.

FrontRunner has begun to meet and exceed ridership projections. The annual ridership for 2014 was 4,416,371. The Provo extension line has carried as many as 16,000 boardings per weekday.¹

Currently UTA runs commuter rail every 30 minutes during peak, 60 minutes during off peak, Monday through Saturday, approximately 5:00 a.m. to 12:30 am. The majority of

¹ UTA Press Release, "Ridership on UTA is healthy, but changing as new rail lines open," June 17, 2013.

crossings are at-grade, so the current service is restricted to 79 mph or less. The current service is also restricted to no more than 30 minute frequency due to long sections of single track along the alignment. Trains must wait for trains in the opposing direction of travel to clear the track prior to proceeding. There is a limited number of passing or siding tracks available for this maneuver.

Table 43: Utah Transit Authority *FrontRunner* Metrics

Metric	2013	2014
Ridership	3,816,324	4,416,371
Reliability	89.16%	92.00%
Customer Complaints	43.00/per 100,000 riders	21.76/per 100,000 riders

Future plans for commuter rail include double tracking where possible to increase travel frequency, grade separating all crossings in order to increase speeds above 79 mph, and electrification of locomotives for decreased fuel costs, improved air quality, and improved reliability.

Additionally, UTA is working on transit connectivity at all commuter rail stations as well as first/last mile strategies to increase ridership by making transit more accessible and convenient to the traveling public.

The following sections discuss planned commuter rail projects.

5.3.1.1 Wasatch Front Regional Council 2040 Regional Transportation Plan

The WFRC is preparing its 2015 – 2040 Regional Transportation Plan. The WFRC has developed a preferred scenario based on different land use scenarios. The preferred scenario identifies two commuter rail projects, both at the far north end of the Wasatch Front:

- Improvements to the segment of *FrontRunner* between the Ogden and Pleasant View stations (Phase 2 - 2021 to 2030); and
- A new segment of *FrontRunner* from the Pleasant View station north to the Box Elder County line, as part of an extension to Brigham City (Unfunded Phase).

Presently between Ogden and Pleasant View, UTA runs limited commuter rail service during morning and afternoon peak hours and shuttle buses during non-peak hours. The WFRC Unified Planning Work Plan calls for a right of way study from Ogden to Brigham City. It is difficult to provide enough service operating *FrontRunner* trains on the same track as freight trains. Constructing a UTA owned track in the UP corridor would allow UTA to extend its commuter rail operation north to Brigham City as funding becomes available. In order to do this in the future requires determining right of way needs in the corridor.

UTA will conduct preliminary mapping, survey and engineering work to determine right of way needs to construct its own track in the UP corridor between Ogden and Brigham City. This effort will define the exact rail alignment within the corridor and identify the properties needed for future rail operations.

5.3.1.2 Mountainland Association of Governments 2040 Transportation Plan

The MAG 2040 Metropolitan Transportation Plan was adopted in 2011 and identifies three additional segments of commuter rail that will add to the existing line that extends into Utah County:

- A new segment of *FrontRunner* from Provo to Payson (Phase 2, 2021 to 2030).
- A new segment of *FrontRunner* from Payson to Santaquin (Phase 3, 2031 to 2040).
- A new segment of *FrontRunner* from American Fork to Santaquin via Cedar Valley (Unfunded Phase).

The MAG Unified Planning Work Plan shows a project planned in the future that will extend *FrontRunner* commuter rail service from Provo 16 miles south to Payson City, with potential stations in Springville, Spanish Fork, and Payson. Current study and planning work includes station area planning in Springville, Spanish Fork, and Payson.

- Property Reserve Incorporated, Springville, UTA, Suburban Land Reserves, and Nebo School District are partnering for station area planning at a village center near the future Springville Commuter Rail Station near 400 South and 1750 West in Springville.
- UTA is partnering with Payson to do a freight/shippers sidings analysis and pedestrian and crossings analysis before conducting station area planning.
- UTA is working with Spanish Fork city to develop an area for the Spanish Fork Commuter Rail Station area located near Center Street and I-15 for a new station.

5.3.1.3 Station Area Planning

While many station areas have developed or are starting to develop into higher density centers, some communities struggle with effectively planning and implementing their plans in these areas. To address this issue and to meet UTA Board goals, the UTA planning department is seeking to provide funding and technical assistance to at least two communities every year.

First-last mile strategies, as defined by UTA and used for this project:

The term “last mile” can be used to describe the difficulty in getting people from a transport hub, such as a railway station or bus depot, to their final destination and back again. When users have difficulty

getting from their starting location to a transport network, this can be described as the "first mile problem."

Traditional solutions to the first mile problem in public transit have included the use of feeder buses, bicycling infrastructure, pedestrian amenities and urban planning reform, such as street and trail connectivity and mixing uses. Other methods of alleviating the last mile problem such as bicycle sharing systems, car sharing programs, van pools, folding bike, taxi cab services, wayfinding, and other strategies have been proposed with varying degrees of adoption.

UTA, working with project partners that include WFRC and MAG, among others, will manage a consultant to develop recommendations for a comprehensive first and last mile strategy around major transit stations and fixed route stops including existing bus rapid transit, light rail and commuter rail stations within the UTA system in an effort to reduce auto usage and increase ridership as a means of improving air quality, improving job access, and reducing congestion.

5.4 High Speed Rail and Maps

High-speed rail encompasses rail services that operate at 155 miles per hour on new tracks or 125 miles per hour on existing tracks.² High speed rail lines are generally electrically driven via overhead catenary and use continuous welded rail, which reduces track vibrations allowing high speeds.³ Individual trains have the capacity to carry over 1,600 seated passengers.⁴ Advocates make the point that high-speed rail is often viewed as an isolated transportation mode, but it can be combined with many other modes to make for efficient inter- and intra-city trips. For many long-distance trips, especially when taking into account travel times to an airport from a center city, high-speed rail can be faster than flying.

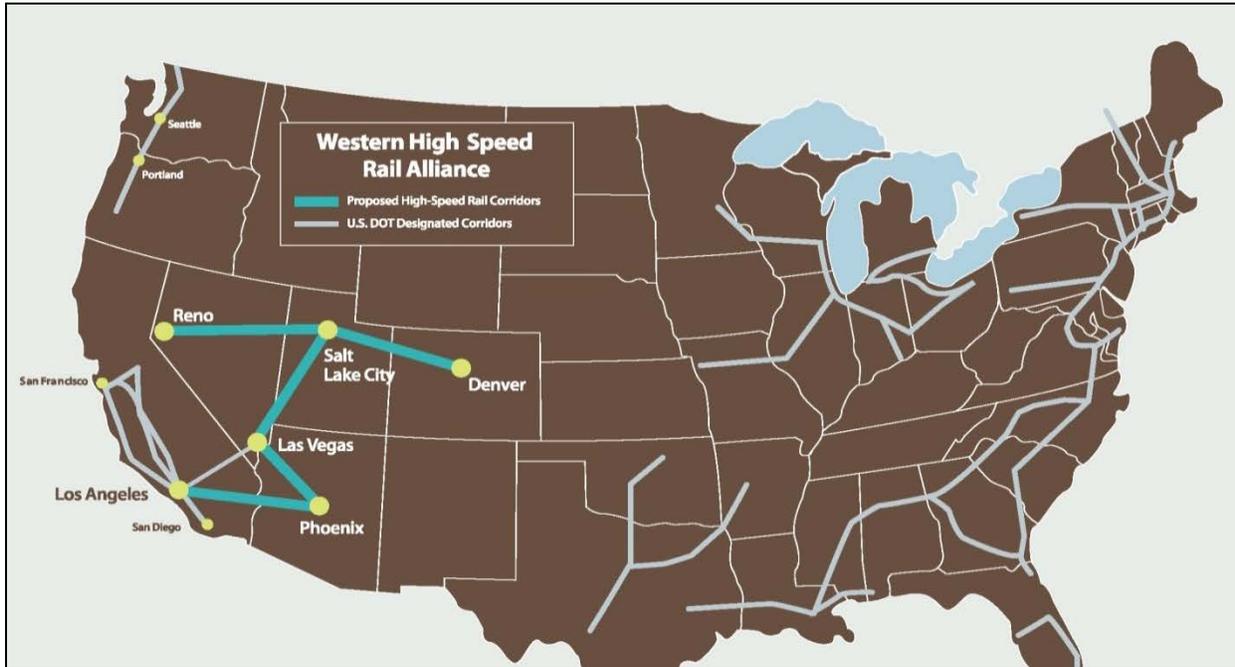
Utah was not included in the high-speed rail network proposed by the U.S. Department of Transportation (DOT). The U.S. DOT-designated corridors largely exclude the Intermountain West: a connection from Southern California to Las Vegas is the only corridor to reach into an Intermountain West state.

² As defined by the International Union of Railways (UIC), <http://www.uic.org/spip.php?article971>

³ WHSRA fact sheet

⁴ Modeled on an E4 Series Shinkansen train, in the Japanese high-speed rail network.

Figure 55: Western High Speed Rail Alliance Map



Source: http://www.whsra.com/sites/all/themes/whsra/downloads/WHSRA_Brochure.pdf

The Western High Speed Rail Alliance (WHSRA), which is now the Western Regional Alliance (WRA), has developed a vision for high-speed rail connections throughout the Intermountain West. The WRA consists of MPOs from Las Vegas, Phoenix, Reno and Denver as well as UTA. The organization was created to determine the viability of a high-speed rail network in the Intermountain West as well as to promote the concept.

The WRA argues that high-speed rail will fuel economic expansion, create new travel choices, reduce national dependence on oil, and foster sustainable growth patterns that can improve air quality and water use. The Alliance argues that the Intermountain West is ideal for high-speed rail because of the region's forecasted rapid population and economic growth as well as the wide-open spaces in between its large population centers.⁵

The organization's vision includes high-speed rail connections among the regions represented by its members, and would be tied to the U.S. DOT network by the Southern California-Las Vegas connection as well as a proposed route between Phoenix and Southern California.

Under the WRA vision, Utah would have connections to Reno, Denver and Las Vegas. The exact alignments of those connections have yet to be determined.

⁵ The HSR points to US Census figures that predict that 88 percent of the nation's growth will occur in the western and southern states.

If the proposal gains traction, the WRA proposes to work jointly to fund studies, create plans and build high-speed rail facilities.

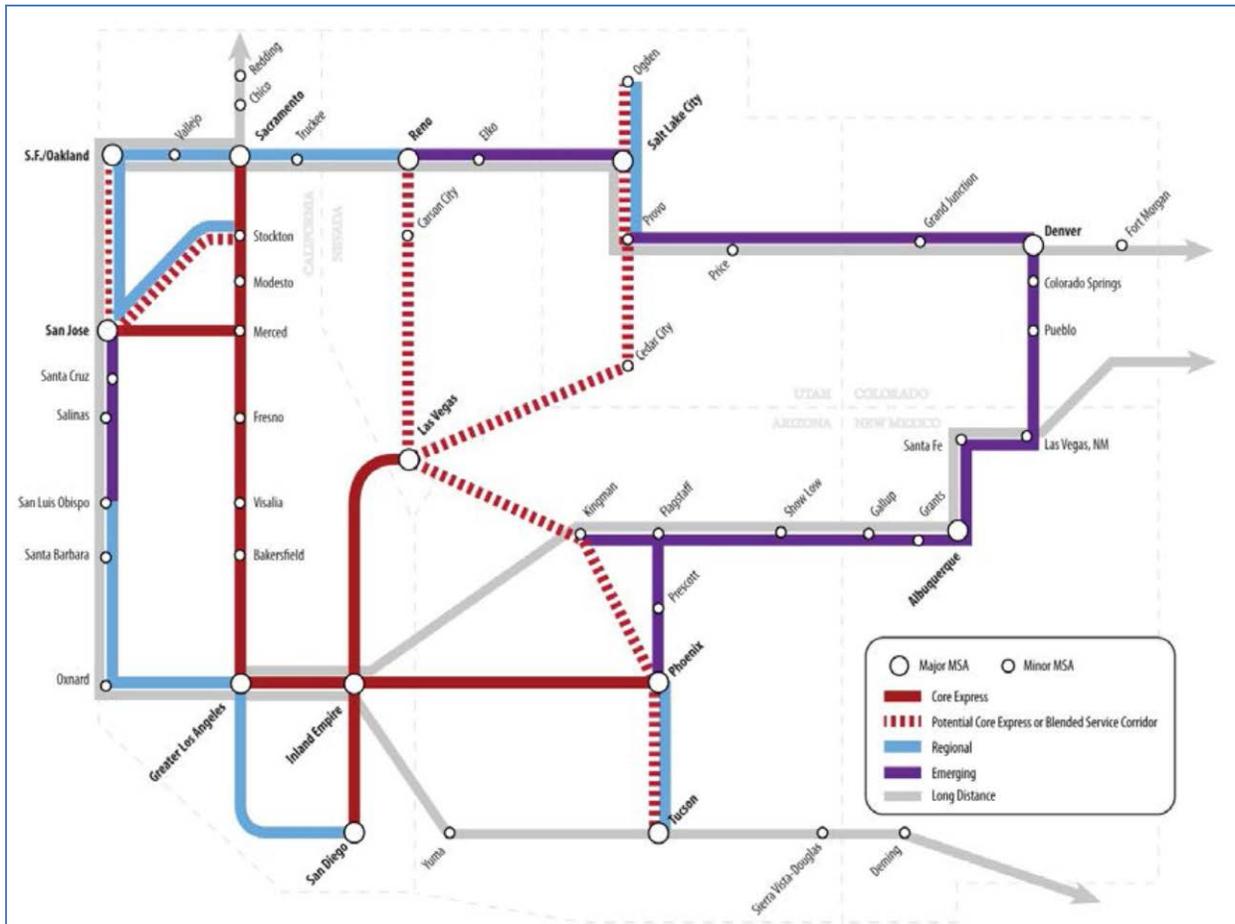
High-speed rail could address current gaps in passenger service between the Wasatch Front region and other major western metropolitan regions such as Reno, Las Vegas, Phoenix, and Denver.

5.4.1 Southwest Multi-state Rail Planning Study – Technical Background Report

The *Southwest Multi-State Rail Planning Study* (SW Study) is the first high-performance rail (HPR) network planning study led by the Federal Railroad Administration (FRA). The FRA initiated the SW Study concurrent with its National Rail Planning Study – an effort to develop a national toolkit for the conceptual planning of HPR networks at the multi-state and mega-regional level.

The SW Study discussed two city-pair corridors that include Utah. The first is Las Vegas to Salt Lake City and the second is Reno to Salt Lake City. The one city pair corridor that is not mentioned in the SW Study is Denver to Salt Lake City. The figure below shows a map of the entire candidate corridors. The solid red lines represent the core express service while the dashed red lines are potential core express service or blended service corridor. The solid blue line represents regional service while the solid purple line represents emerging service. Finally, the gray line represents existing Amtrak conventional long-distance passenger trains.

Figure 56: Candidate Corridors for Potential SW High-Performance Rail



Source: CONNECT Beta Version, 2012

*Figure identifies desired connections between metropolitan areas. It does not identify alignment or station locations and does not preclude multiple alignments within a corridor segment.

Chapter 6 – Proposed Freight Rail Improvements and Investments

Objective: Describe the improvements and investments that could address the freight rail needs of the State.

6.1 For the freight opportunities described in Chapter 4, describe in summary terms all freight rail proposals under consideration, including new intermodal interfaces. Identify projects as service changes or physical improvements and whether they are improvements or new additions to the existing rail network in the state. Organized by railroad company and corridor, describe how each proposal would address gaps in service and financial needs, and options for improvements in Chapter 4 and reference relevant studies and reports.

6.1.1 Freight Rail Proposals

Since the last USRP was compiled in 1996, three studies addressing potential expansion of rail service have been undertaken in the state. A fourth proposed project that has been discussed, but not studied is also included here.

6.1.1.1 Central Utah Rail Project

The Central Utah Rail Project is sponsored by the Six County Association of Governments consisting of Sevier, Sanpete, Juab, Millard, Piute, and Wayne Counties. As the project moves forward, the sponsoring entity will likely move to a three-county association of some kind involving those counties directly involved with rail operations. The state did not sponsor the project and contributed zero funds to the study. The funding structure for the project included six different funding sources as shown in the table below.

Table 44: Central Utah Rail Project Funding Sources

Source	Amount
Federal Earmark	\$1,008,948
Federal Railroad Administration	\$1,000,000
Sevier County	\$526,594
Sufco Mine	\$170,000
Utah Community Impact Board Fund	\$100,000
PacifiCorp	\$5,000
Total	\$2,810,542

This proposed railroad would bring railroad freight service closer to Utah’s largest coal mine. The Sufco Mine is located east of Salina a few miles north of I-70. This mine has produced over 800 coal truck shipments in a single day, with that coal having to travel west on I-70 to Salina, then north via U.S. Highway 89 and State Route 28 to the

nearest railroad loadout facility, near Levan on UP's Provo Line. The proposed new railroad would extend from Levan south to Salina, and would have also served the underground salt mines of Redmond Minerals north of Salina.

The Surface Transportation Board's SEA released the first Draft EIS for the Six County Association of Governments proposed 43-mile rail line in Sanpete, Sevier, and Juab Counties, Utah on June 29, 2007. A Supplemental Draft EIS was released for public comment on May 2, 2014 and it is anticipated that a final EIS will be completed on April 20, 2015. Known as the Central Utah Rail Project, this new line would begin at the connection with the UP's Provo mainline located near Levan, about 16 miles south of Nephi, and would terminate about half a mile southwest of Salina.

The length of the new railroad is approximately 43 miles and would cost an estimated \$110 million. This railroad would allow industries to access rail transportation for bulk commodities to and from the area.

Economic Impacts

This line would enhance and strengthen the area's current transportation system with the two major Interstates intersecting 40 miles away. The line could also help preserve and retain 600 mining related jobs.

Infrastructure Impacts

Rail would allow for the reduction of heavy truck traffic on state highways and city streets not designed for heavy loads. The state will have to resurface several miles of highway due to damage caused by the trucks carrying 42-ton payloads of coal.

Opportunities and Benefits Provided by the Proposed Rail Line

The proposed rail project could open additional industrial development in Salina. The City of Salina is currently working on infrastructure developments for its 1,800-acre industrial park. Economic stability could be preserved and strengthened for all regional industries including; clay and minerals, lumber production, gypsum manufacturing, sand and gravel operations, trucking, etc. The primary commodities that would ship by rail include coal, salt, clay, lumber, agricultural products, and petroleum minerals. Some of the benefits identified for the proposed rail line included the following:

1. Preservation and expansion of Utah's largest coal mine (Sufco Mine).
2. Greatly increasing marketability of Utah coal to western U.S. and Pacific Rim customers.
3. Preservation of state highway system in region.
4. Improved safety and quality of life along coal-haul truck routes.
5. Reintroduction of rail freight service lost to region in 1983.
6. Ability to attract businesses requiring efficient transportation through rail access.
7. Improving transportation to existing businesses resulting in business expansion.

As of this writing, the project is still in the Draft EIS stage and has not received a Final Environmental Impact Statement. More information regarding the Central Utah Rail Project Draft EIS can be found at the STB website.

6.1.1.2 Isolated Empire Rail Project (IERP)

The Isolated Empire Rail Project (IERP) study from 1999 to 2001 resulted from interest by the counties and communities in northeastern Utah's resource-rich Uinta Basin in bringing railroad freight service into that area. The counties and communities involved in the Uinta Basin enlisted the help of the former Utah Department of Community and Economic Development to spearhead this hoped-for rail project.

Economic Impacts

Economic development, primarily in the form of a proposed Phosphate Mine in the Uinta Mountains north of Vernal, and processing plant to be located near the Bonanza Steam Power Plant southeast of Vernal, were the driving forces behind the IERP. This new phosphate development would have been in direct competition with the existing S & F Phosphate Mine located directly east of the proposed new phosphate facility on the south slope of the Uinta Mountains. It was not projected that this line would be involved more than indirectly in the energy industry, which was in a slump at that time in the Uinta Basin.

Aside from a funding earmark for studying the feasibility of the project, there was no government funding available for the line's construction and operation should it be built. As a result of this lack of major funding support, the railroad was projected to travel into the Uinta Basin via the adjacent state of Colorado, which provided the least expensive route alternative into the Basin. Several route alternatives were studied in the initial feasibility study, with the route from Rifle north over Rio Blanco Divide to Meeker, Colorado and then west to the Rangely area where the line would enter Utah just east of the Bonanza plant location, being the preferred route.

Rifle was selected since it provided access to UP's former Rio Grande mainline linking Salt Lake City with Denver over which the BNSF Railway has STB directed trackage rights following the UP/SP merger in 1996. As such, the new railroad would have access to both major Class I railroads serving the west.

Once the initial feasibility study and operations study were completed, no further work was done on the IERP. This was the result of the lack of government support and funding for the project, as well as the failure of the proposed new phosphate development to obtain funding to proceed. When the current Uinta Basin Rail Project commenced, the original IERP studies and plans were included as a part of the new project's research. However, owing to the change in project focus, and the desire to keep the new rail line totally within the state of Utah, the IERP and its proposed

Colorado alignment did not play more than a minor supporting role in the new study effort.

6.1.1.3 Uinta Basin Rail Project

The state of Utah has identified transportation constraints in the Uinta Basin that limit energy production and community building activities over the next three decades. Transportation constraints in the Uinta Basin were documented in an analysis conducted by UDOT in the Uinta Basin Energy and Transportation Study that was completed in April, 2013.

In this study, the unconstrained estimates of likely-to-be economically feasible energy production were identified with input from government, academic and industry sources of information. The Study concluded that there is the potential that existing and planned transportation capacity is constraining the potential for resource development.

To address the findings in the study, the USRP recognizes the potential need to provide new rail service from existing Class I rail lines to the Uinta Basin. Further study is needed to develop, evaluate and screen alternatives and then initiate the NEPA process to better understand the potential of providing new rail service into the Uinta Basin.

6.1.1.4 Blawn Mountain Rail Project

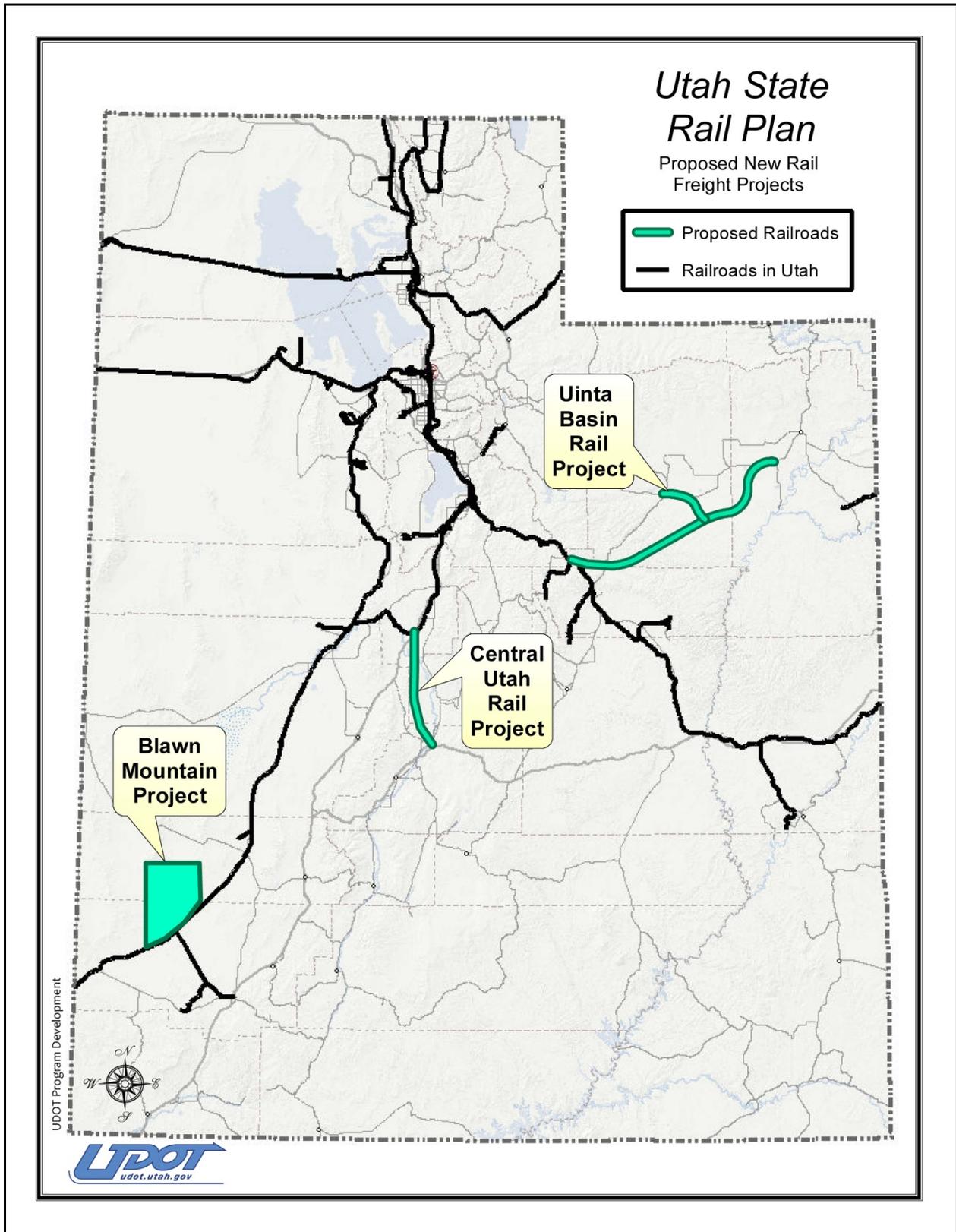
The Blawn Mountain Rail project is a very recent development, which has not yet progressed to a feasibility study, as of this writing. The proposed Potash Ridge Project at Blawn Mountain is located in southwestern Utah about 56 miles northeast of Cedar City and about 20 miles west of UP's Salt Lake Route mainline linking Utah with Southern California. This project would involve 18.5 sections (11,550 acres) of state land owned by the state of Utah School and Institutional Trust Lands Administration (SITLA) for the establishment of a surface potash mine. There is currently interest in establishing a rail connection between the proposed mine and the UP Salt Lake Route at a point southwest of Milford.

Although any rail development is in the very early stages as of this writing, the following data is provided to establish the need for rail access to the Potash Ridge Project. According to information provided by the project, the new mine will include conventional crushing, roasting, leaching and crystallization processes with a projected initial annual output after ramp-up of 770,000 tons of sulphate of potash (SOP) for the first ten years. Projected annual output for the remaining 30 years of the mine is 645,000 tons of SOP. Proven and probable mineral reserves of 426 million tons exist in the area of the mine which could extend the mine life beyond the 40 year mark.

Utah State Rail Plan 2015

UDOT will monitor the freight transportation needs, both rail and highway, of the Potash Ridge Project as it moves forward, with details to be included in future editions of the USRP.

Figure 57: Proposed New Rail Freight Projects



6.2 Crude Oil Transportation and Transload Facilities

Crude oil in the Uinta Basin is emerging as an opportunity for rail improvements. Demand is rising for shipping Utah crude oil out of state to processing in Oklahoma, Texas and Louisiana and to some degree California. Currently, via the Wasatch Front and Carbon County, there are six transload facilities handling crude oil from the Uinta Basin. Currently, there are between 25,000 and 30,000 barrels per day (bpd) being transported by truck to rail transload facilities in Carbon County and the Wasatch Front. Through industry outreach, UDOT estimates the current crude oil truck to rail numbers as follows:

- 102 crude oil trucks daily to rail transload facilities resulting in approximately 27,000 bpd filling 49 rail tank cars daily.

Within three to five years, it is estimated that there will be the following:

- 325-plus crude oil trucks daily to rail transload facilities resulting in more than 86,000 bpd filling 148-plus rail tank cars daily.

Note: Crude oil truck capacity is between 250 to 280 barrels of oil. To calculate the number of barrels per truck, an average of 265 barrels was used. Railroad tank car capacity, depending on the tank cars, ranges between 530 to 650 barrels of oil. To calculate the number of railroad tank cars, an average of 590 barrels was used.

6.2.1 Highway Impacts

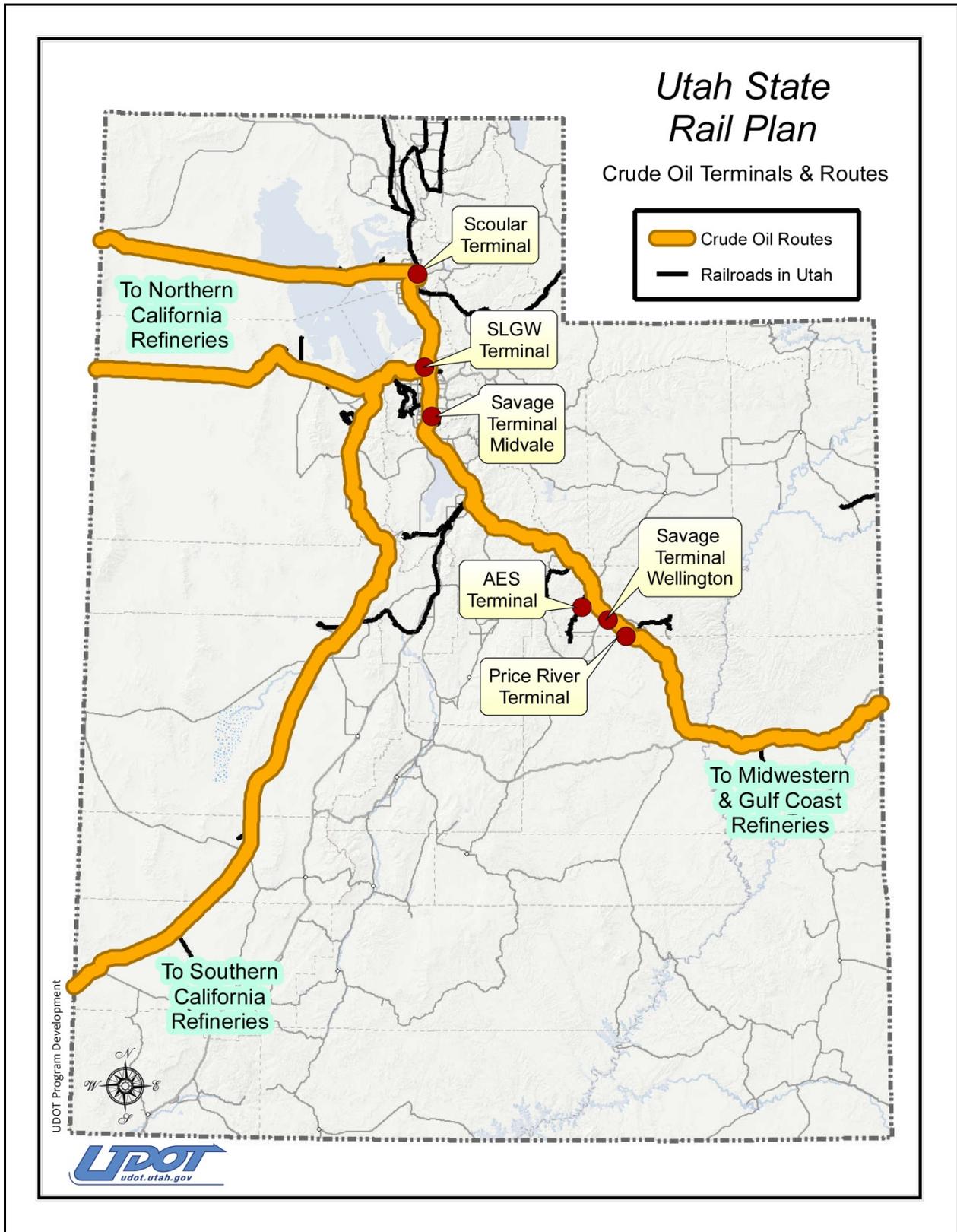
Transporting crude oil by truck out of the Uinta Basin to the transload facilities has an impact on roadway infrastructure. Currently, the crude oil is transported by truck from the Uinta Basin to three transload facilities on the Wasatch Front (Salt Lake, Ogden, Midvale) and three in Carbon County (near Helper and Wellington), where it can be transferred from trucks to rail cars. As the Carbon County transfer facilities are completed, more oil transfer will be shifted there from the more temporary Wasatch Front facilities because of its closer proximity to the Uinta Basin. Each of these Carbon County crude oil terminals currently relies on truck transportation via U.S. 191 through Indian Canyon.

6.2.2 Rail versus Pipeline

In most oil field developments in the past, a crude oil pipeline would be built to link the extraction area with refineries, water or rail terminals. With the growing environmental concern over pipelines, and given the thick, waxy nature of Utah's Uinta Basin crude, pipelines do not provide the bulk transportation solution they have in past energy developments in other regions.

A crude oil pipeline operated by Chevron already links the Uinta Basin with Utah's Wasatch Front refineries, however, very little of the Basin's unique waxy crude can be shipped in this pipeline. Trucks are the primary mover of Uinta Basin crude to refineries and rail terminals outside the Basin. Additionally, even if a proposed heated crude oil pipeline is built to transport waxy crude from the Basin to rail terminals in the Helper/Wellington area to the south, or Wasatch Front refineries to the west, such a pipeline will not be capable of handling inbound shipments of oil extraction-related materials such as frac sand, well heads, drill steel, refined petroleum products, etc. The Uinta Basin's energy development activities potentially need the multi-commodity freight handling capabilities of direct railroad service.

Figure 58: Crude Oil Rail Terminals and Routes



6.3 U.S. Department of Energy's Moab Uranium Mill Tailings Remedial Action (UMTRA) Project

In the Post World War II nuclear era, Utah was one of the primary centers for uranium mining and processing. One of the best-known sites of this nuclear activity was located on the banks of the Colorado River across from the resort town of Moab in eastern Utah. The Uranium Reduction Company built the Moab mill in 1956 and operated it until it was sold to Atlas Minerals Corporation in 1962.

When processing operations ceased in 1984, an estimated 16 million tons (12 million cubic yards) of radioactive mill tailings and contaminated soil was left in piles on site. Atlas proposed to cap the tailings in place when the facility closed. However, following the bankruptcy of Atlas, the tailings pile was left uncovered in close proximity to the Colorado River, which is a primary water supply to agriculture and more than 30 million people in the southwest.

Between 2005 and 2008 the United States Department of Energy (DOE) began implementation of the NEPA process, which facilitated federal involvement in the removal of the Moab tailings to a more environmentally secure location 30 miles to the north at Crescent Junction, Utah. The UP's Potash Branch, which passes adjacent to the Moab tailings site and connects with UP's Rio Grande line at Crescent Junction was selected to be the primary mode of transportation for the tailings. Truck transportation is used at both ends of the tailings shipment process.

In April of 2009 the DOE began relocating the tailings to the secure Crescent Junction disposal cell. The Moab UMTRA Project is currently shipping one train per day, four days a week, and carrying 136 containers of tailings material for a total of about 4,850 tons per trainload. By May of 2014 the project reached the milestone of having shipped over six million tons of tailings, or 42 percent of the total amount. The project is currently estimated to be completed in 2025.

Chapter 7 – The State’s Long-Range Rail Service and Investment Program (LRSIP)

Objective: Describe the state’s long-term vision for rail service and its role in the statewide multimodal transportation system. Prioritize the specific projects, programs, policies, laws, and funding necessary to achieve that vision and describe their financial and physical impacts.

The Long-Range Rail Service and Investment Program (LRSIP) is a critical component of the state rail plan. Essentially, it is the “action plan” component of the State rail plan that lays out the state’s 20-year vision for the passenger and freight rail system and how that vision will be implemented and integrated with other statewide and regional transportation plans. The LRSIP will recommend improvements to achieve the vision, including an estimate of investment needs and benefits resulting from those investments.

Improvements identified in the LRSIP are strongly encouraged to be incorporated into statewide long-range transportation plans and transportation improvement programs, in keeping with the applicable regulations and interpretations of the Federal Highway Administration and the Federal Transit Administration. The LRSIP will also detail potential approaches to funding and financing the improvements and suggest policy and programmatic changes such as refining existing rail programs and institutional responsibilities for rail service and infrastructure development.

7.1 Vision: Describe the state’s vision for rail transportation for the 5 and 20-year time horizons, as well as a longer-term vision. Describe how the vision would meet the state’s goals for a multimodal transportation system and achieve the intended role for rail in the state’s transportation system.

7.1.1 Utah’s Rail Vision

UDOT will continue working with railroad freight and passenger stakeholders, including rail shippers, local governments, MPOs, etc. (see Chapter 8), to promote rail safety for everyone, maintain a state of good repair for rail transportation infrastructure, develop services for economic competitiveness, enhance quality of life through livable communities, and support environmental sustainability. In summary, drawing upon the National Rail Plan, UDOT’s rail vision includes the following five strategic goals.

1. Promote Safety
2. State of Good Repair
3. Economic Competitiveness
4. Livable Communities
5. Environmental Sustainability

7.1.1.1 Promote Safety

Safety is very important to UDOT and is one of three strategic goals defined as “Zero Fatalities.” Railroad safety has improved steadily over time and railroad crossing fatalities in Utah have decreased by 82 percent since 1975. In fact, rail has a safety advantage compared to other modes for both rail freight and passenger transportation. With this safety advantage, increasing the market share of both passenger and freight rail provides a measureable public benefit in reduced fatalities and injuries.

7.1.1.2 State of Good Repair

The United States has invested countless dollars of public and private funds to create the world's most extensive and productive transportation system. America's rail freight system is no different, serving the nation as the largest and most efficient railroad freight network in the world. To remain economically competitive, rail infrastructure must be actively maintained in a state of good repair. This responsibility is on the shoulders of the private railroad companies. Utah's railroads invest millions of dollars each year in their rail infrastructure located in Utah.

7.1.1.3 Economic Competitiveness

The ability to move freight in a quick and efficient manner increases Utah's economic competitiveness, which can be an attractive option for businesses considering relocating or expanding in Utah. Commuter rail service also plays a major role by providing options in moving Utah's workforce, along with providing another mode of passenger transportation.

7.1.1.4 Livable Communities

Having direct connections between intercity passenger and commuter rail with local transit options enhances the quality of life of Utah residents by providing intermodal connectivity and mode choice. Many communities in Utah have seen an economic revitalization and redevelopment around commuter rail and other local transit stations.

7.1.1.5 Environmental Sustainability

UDOT is committed to advancing environmentally sustainable policies and investments. With its comparative energy advantage, rail plays a vital role in helping America to

become energy independent through both fuel efficiency and a decrease in carbon and harmful emissions for better air quality.

7.1.1.6 Railroad Freight Vision

Utah's goal is to maintain and expand, where necessary, efficient and economically-competitive railroad freight service that meets current and future needs of Utah's business community and which is fully integrated with other freight modes serving Utah.

7.1.1.7 Railroad Passenger Vision

Utah's goal is to develop a passenger network that is sustainable, fully integrated with other modes of passenger transportation, and which will adequately meet the evolving needs resulting from Utah's future growth.

7.1.2 Utah Transit Authority Mission Statement and Vision

UTA does not have a specific vision statement for commuter rail in Utah, but does have a mission statement and vision for the agency. They include the following:

- Mission Statement - Utah Transit Authority strengthens and connects communities enabling individuals to pursue a fuller life with greater ease and convenience by leading through partnering, planning, and wise investment of physical, economic, and human resources.
- Vision - Provide an integrated system of innovative, accessible and efficient public transportation services that contribute to increased access to opportunities and a healthy environment for all people of the Wasatch region.

7.2 Program Coordination: Describe how the state's long-term vision integrates with other transportation planning efforts, including the state's long-range transportation plan, the National Rail Plan, the state rail plans of neighboring states, and national and regional multi-state rail plans, as appropriate. Address how the vision meets National defense and emergency transportation requirements.

Utah's long-term vision is very similar to the vision outlined in the National Rail Plan. Many neighboring states also share common elements of a rail vision such as safety, economic competitiveness, and environmental sustainability.

Utah's vision promotes safety and encourages rail owners to maintain a state of good repair for rail infrastructure so that the National defense can be maintained through an efficient, extensive, and productive transportation system.

7.3 Rail Agencies: Describe any planned state rail agency organizational changes and proposed policy or legislative changes and new programs within the 5 and 20-year time horizons.

At the present time, the state of Utah does not have an established rail agency beyond UDOT. However, a special working group was established by UDOT to assist in the development of the USRP. A list of those that participated on a Working Group is listed on the acknowledgements page and in Table 48.

The state of Utah has historically avoided involvement in what are traditionally private sector transportation operations such as railroading. Utah lacks rail-served city pairs that would lend themselves to state-funded passenger train service such as that found in California, Washington, Illinois and 12 other states, and is also lacking in railroad freight branch lines and short line railroads in need of government-funded salvation. Hence, UDOT has not previously become financially involved in the railroad industry. UDOT allows the private sector and UTA to operate such services.

As of 2014, barring a significant change in the previously-mentioned conditions, it is not anticipated that Utah or UDOT would become financially-involved in either railroad freight or passenger service. As such, the "Vision" for such services is largely determined by the private sector freight railroads and quasi-governmental entities such as Amtrak and UTA which operate such services within Utah.

However, current or future research into the expanding transportation needs of Utah, as related to urban growth, as well as energy resource development, could result in a shift in Utah's current position with regards to financial investment in railroad operations, either passenger or freight. Examples of this are the ongoing Uinta Basin Rail Project, the Central Utah Rail Project, and UDOT's efforts to make UTA transit services more competitive.

7.4 Program Effects: Describe as specifically as possible the effects of the passenger and freight rail elements in the 5 and 20-year plans on:

Future rail elements are the responsibility of individual rail carriers and not the state of Utah. This was observed in the creation of this plan when the private railroads stated that their plans are proprietary information and not subject to public disclosure.

7.4.1 The state's transportation system.

Rail will continue to play a major role in freight and passenger service, both now and in the future. As congestion grows on Utah's highways, goods movement shifting to rail will be needed and passenger rail will not only be desirable, but also necessary to transport people from housing to job centers.

7.4.2 Public and private benefits that exist and are anticipated with the 5 and 20-year plans and the correlation between public funding contributions and the expected public benefits.

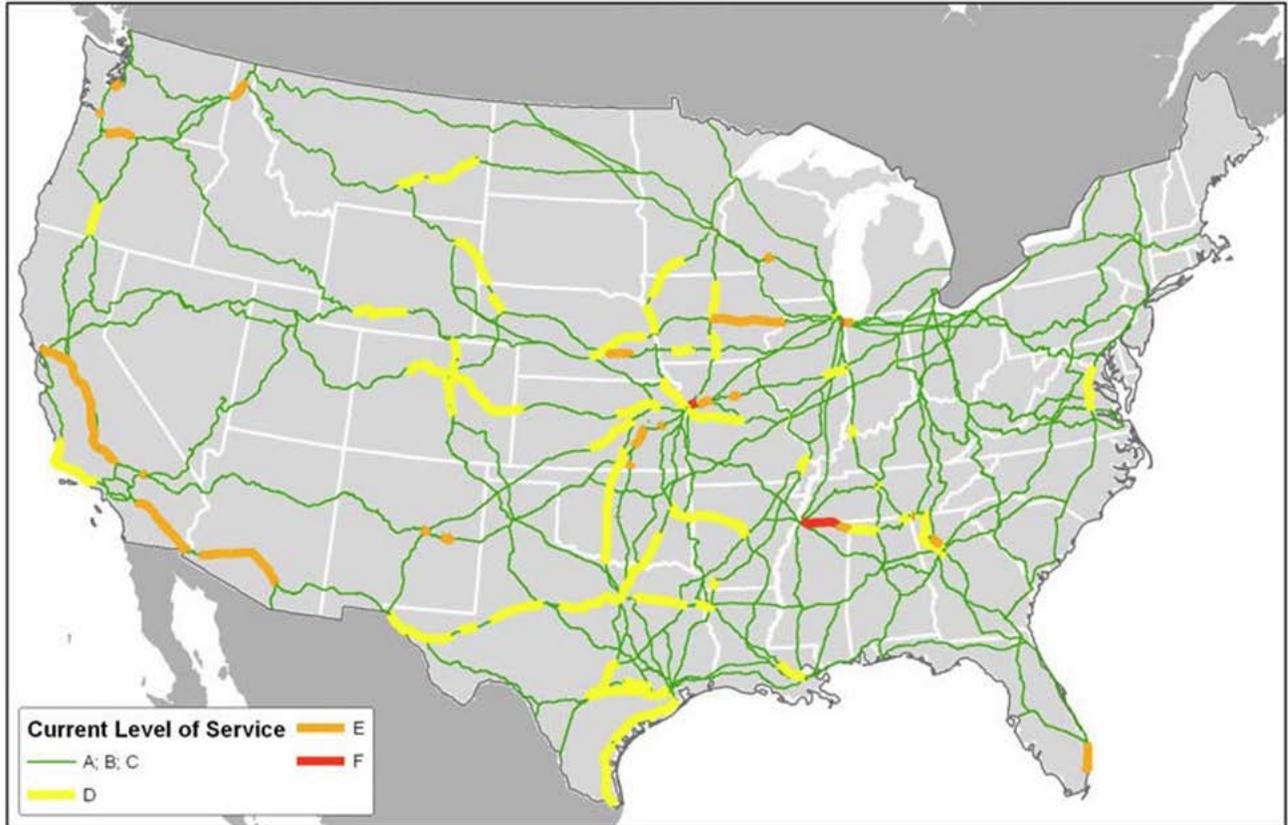
Private railroads in Utah do not disclose what they consider as proprietary information regarding funding or plans. Utah does not fund intercity passenger rail and the only Amtrak train serving Utah is the *California Zephyr*, which is a long-distance passenger train funded by the Federal government. Commuter rail in Utah is funded through sales tax within its service area and is expected to serve additional communities in the future as proposed in the long-range transportation plan of the WFRC and MAG.

7.4.3 Rail capacity and congestion by corridor.

Rail capacity and congestion is always being evaluated by individual railroads. The private railroad companies are not willing to provide information about capacity and congestion on their rail corridors. However, the National Rail Freight Infrastructure Capacity and Investment Study prepared for the AAR by Cambridge Systematics in 2007 showed level of service (LOS) for train volumes compared to train capacity for the year 2005. The study also showed projected 2035 train volumes with 2005 corridor capacity. In other words, the projected LOS was shown with projected future train volumes, but without any capacity improvements. The railroads in Utah stated they would never allow their railroad infrastructure LOS to deteriorate. They continually perform track maintenance and capacity improvements. Finally, the study further showed the projected 2035 train volumes with 2035 improvements. It should also be noted that this study was based upon pre-2008 recession train operations, which the economic downturn significantly impacted on certain mainlines in the west.

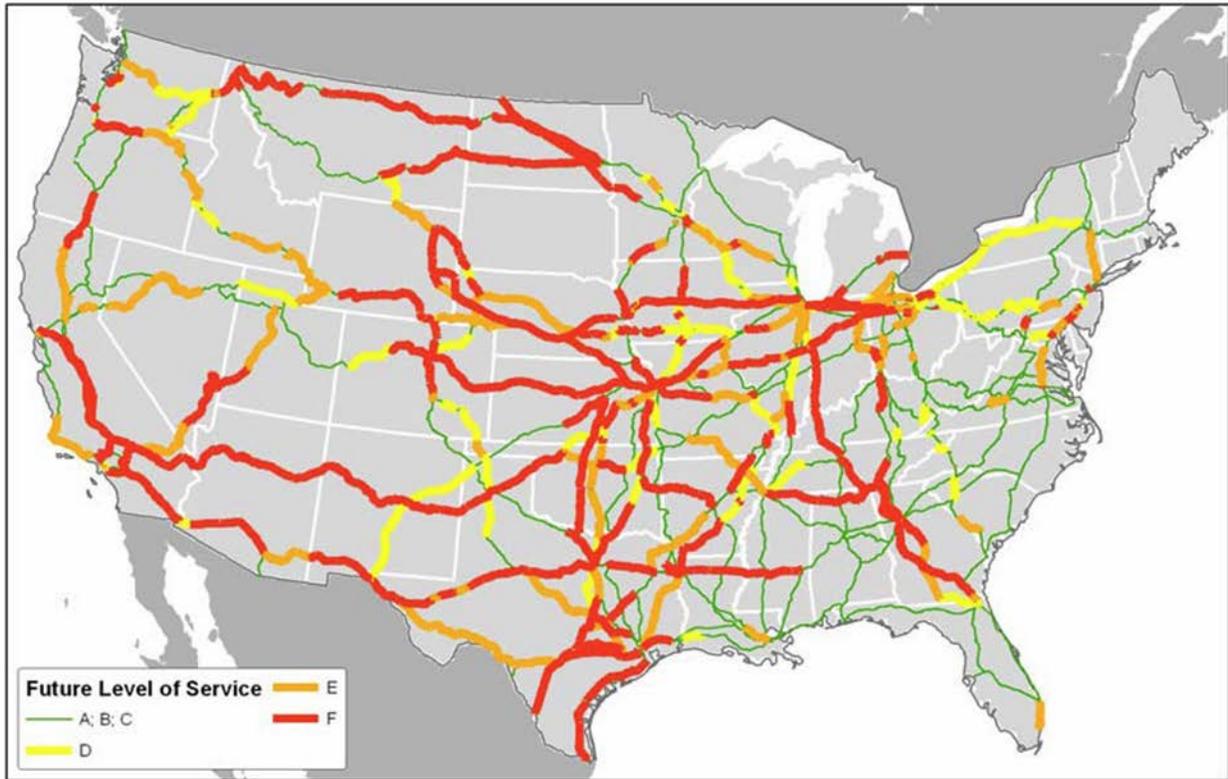
Special Note: It is important to point out that the Cambridge study focuses on future train traffic congestion if no railroad capacity improvements are made between 2005 and 2035. It is important to note that it is highly unlikely that America's profitable private freight railroads would cease investing the hundreds of millions of dollars they are currently spending each year on capital improvements to the detriment of America's railroad system, and its ability to handle future rail traffic.

Figure 59: 2005 Train Volumes Compared to 2007 Train Capacity



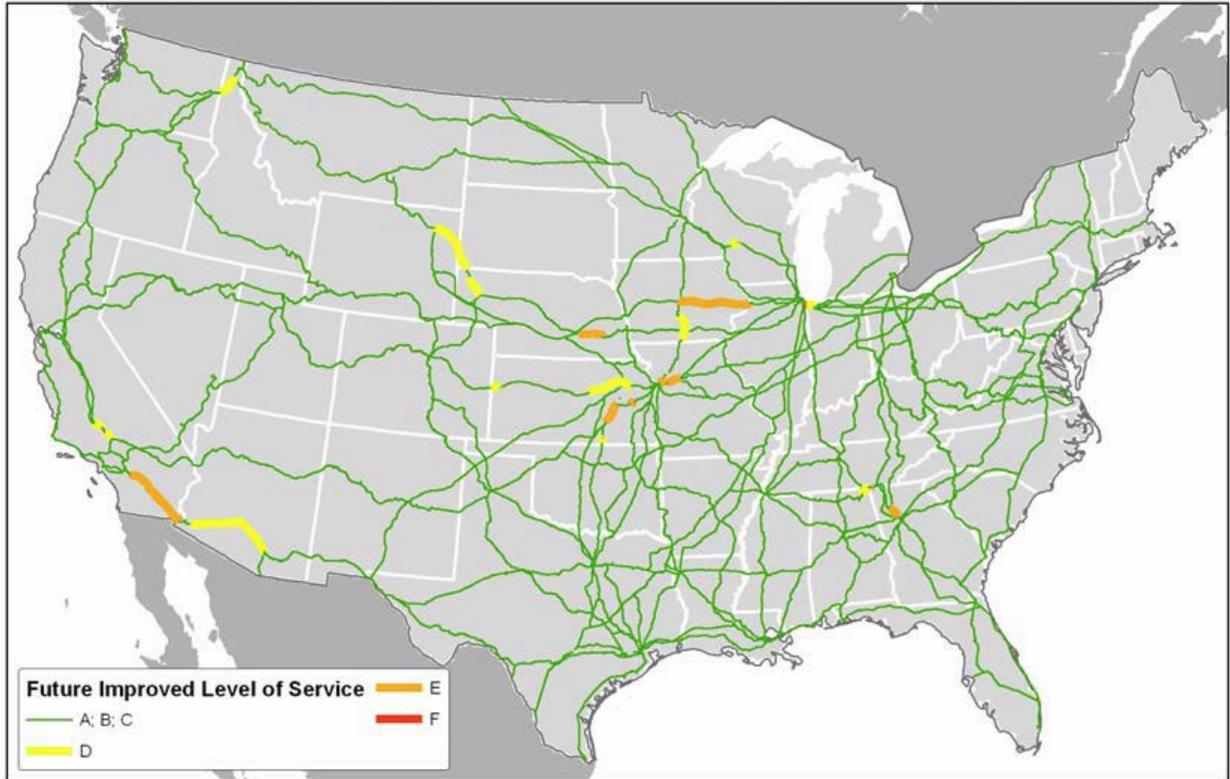
http://www.camsys.com/pubs/AAR_Nat_%20Rail_Cap_Study.pdf December 30, 2014.

Figure 60: 2035 Corridor Volumes Compared to 2005 Corridor Capacity without Improvements



http://www.camsys.com/pubs/AAR_Nat_%20Rail_Cap_Study.pdf December 30, 2014.

Figure 61: 2035 Train Volumes Compared to 2035 Train Capacity with Improvements



http://www.camsys.com/pubs/AAR_Nat_%20Rail_Cap_Study.pdf December 30, 2014.

7.4.4 Transportation system capacity, congestion, and safety, including the effects on highway, aviation, and maritime modes.

Not applicable due to the proprietary nature of internal railroad plans and data.

7.4.5 Environmental, economic, and employment conditions including energy consumption and greenhouse gas emissions.

Not applicable due to the proprietary nature of internal railroad plans and data.

7.4.6 Distribution of benefits to regions (regional balance).

Not applicable due to the proprietary nature of internal railroad plans and data.

7.5 Passenger Element

7.5.1 Describe how passenger rail capital projects were analyzed for their effects on:

See special note in Section 7.5.4.

7.5.1.1 Projected ridership, passenger miles traveled, modal diversion from highway and air travel, revenue, and operating expenses associated with existing, 5 and 20-year passenger rail services in aggregate and broken down by commuter, intercity and high-speed rail projects.

See special note in Section 7.5.4.

7.5.1.2 Livability, including land use changes and improvements to walkability.

See special note in Section 7.5.4.

7.5.2 Capital Financing Plan: describe the 5 and 20-year financing plans for capital expenditures associated with the project lists including potential funding sources, capital costs required both initially and in subsequent years to maintain a state-of- good-repair and to recapitalize as necessary to sustain the initially proposed level of service or higher levels of service. Present the estimates for capital expenditures annually in year of expenditure cost. Specify the strategy for using grants, loans, private activity bonds (PABs), public-private partnerships (P3s), or other finance mechanisms for each project.

See special note in Section 7.5.4.

7.5.3 Operating Financing Plan: Describe the 5 and 20-year financing plans for operating deficits associated with the State's publicly-financed passenger rail services, including funding sources.

See special note in Section 7.5.4.

7.5.4 Describe the public and private economic benefits that exist and are anticipated with the 5 and 20-year plans and the correlation between public funding contributions and the expected public benefits.

See special note in Section 7.5.4.

Special Note: As has already been explained in this plan, the state of Utah, aside from the projects outlined by UTA, has not traditionally and does not plan at this time to become a financial or operating entity in terms of rail passenger service in the state.

7.6 Freight Element

7.6.1 Financing Plan: describe 5 and 20-year capital financing plans for public and private investments in freight rail (Class I, II and III) capital expenses associated with the project lists in section 7.8 exclusive of operating and maintenance costs. If there are publicly-financed freight rail services in the State, an operating financing plan for any operating deficits (with funding sources) will need to be included and public capital contributions estimated annually in year of expenditure cost. Specify the strategy for using grants, loans, PABs, P3s, or other finance mechanisms for each project.

As per the state of Utah Constitution and Code, currently UDOT is extremely limited in its ability to participate with grants or loans to railroads in Utah. Therefore, there have not been any past grants, loans, or public/private partnership financing for railroads in Utah. While the Utah Constitution and Code limits specific funding sources from being used for non-highway purposes, other funding sources could be explored in the future by the Utah Legislature.

As of this writing, the existing private freight rail network of Utah is functioning well and does not have any major problems that need to be addressed. There are areas of the state without any rail infrastructure and those areas would benefit from the introduction of rail freight service, if economically feasible. Those areas without current rail service are outlined as freight rail service gaps in Chapter 4.

The on-going Uinta Basin Rail Project and Central Utah Rail Project (see Chapter 6) as of this writing have not progressed to the point of determining the financing of each new railroad freight operation. If these projects continue to progress, financing arrangements will be included in the next USRP.

7.6.2 Describe the public and private economic effects that exist and are anticipated with the 5 and 20-year plans and the correlation between public funding contributions and the expected public benefits.

See section 7.6.1 above.

7.7 Rail Studies and Reports: Describe existing and needed planning studies to: develop corridor service plans for passenger rail (including high speed rail) [§ 22705(a) (11)]; develop coordinated regional rail policies and plans; evaluate freight operations and policies; address economic, environmental, or safety topics; or address other rail system topics. List all planned studies organized by rail corridor for the next 5 years and provide the following information for each study:

7.7.1 Central Utah Rail Project

This proposed railroad would bring railroad freight service closer to Utah's largest coal mine. The Sufco Mine is located east of Salina a few miles north of I-70. This mine has produced over 800 coal truck shipments in a single day, with that coal having to travel west on I-70 to Salina, then north via U.S. Highway 89 and State Route 28 to the nearest railroad loadout facility, near Levan on Union Pacific's (UP) Provo Line. The proposed new railroad would extend from Levan south to Salina, and would have also served the underground salt mines of Redmond Minerals north of Salina.

The Surface Transportation Board's SEA released the first Draft EIS for the Six County Association of Governments (SCAOG) proposed 43-mile rail line in Sanpete, Sevier, and Juab Counties on June 29, 2007. A Supplemental Draft EIS was released for public comment on May 2, 2014. Known as the Central Utah Rail Project, this new line would begin at the connection with the UP's Provo mainline located near Levan, about 16 miles south of Nephi and would terminate about half a mile southwest of Salina. The length of the new railroad is approximately 43 miles and would cost an estimated \$110 million. This railroad would allow industries to access rail transportation for bulk commodities to and from the area. (See Section 6.1.1.1.)

7.7.2 Isolated Empire Rail Project (IERP)

The Isolated Empire Rail Project (IERP) study from 1999 to 2001 resulted from interest by the counties and communities in northeastern Utah's resource-rich Uinta Basin in bringing railroad freight service into that area. The counties and communities involved in the Uinta Basin enlisted the help of the former Utah Department of Community and Economic Development to spearhead this hoped-for rail project.

Economic development, primarily in the form of a proposed Phosphate Mine in the Uinta Mountains north of Vernal, and processing plant to be located near the Bonanza Steam Power Plant southeast of Vernal, were the driving forces behind the IERP. This new phosphate development would have been in direct competition with the existing S & F Phosphate Mine located directly east of the proposed new phosphate facility on the south slope of the Uinta Mountains. It was not projected that this line would be involved more than indirectly in the energy industry, which was in a slump at that time in the Uinta Basin.

Aside from a funding earmark for studying the feasibility of the project, there was no government funding available for the line's construction and operation should it be built. As a result of this lack of major funding support, the railroad was projected to travel into the Uinta Basin via the adjacent state of Colorado, which provided the least expense route alternative into the Basin. Several route alternatives were studied in the initial feasibility study, with the route from Rifle north over Rio Blanco Divide to Meeker and

then west to the Rangely area. The preferred route of this line would enter Utah just east of the Bonanza plant location.

Rifle was selected since it provided access to UP's former Rio Grande mainline linking Salt Lake City with Denver over which the BNSF Railway has Surface Transportation Board (STB) directed trackage rights following the UP/SP merger in 1996. As such the new railroad would have access to both major Class I railroads serving the west.

Once the initial feasibility study and operations study were completed, no further work was done on the IERP. This was the result of the lack of government support and funding for the project, as well as the failure of the proposed new phosphate development to obtain funding to proceed. When the current Uinta Basin rail project commenced, the original IERP studies and plans were included as a part of the new project's research. However, owing to the change in project focus, and the desire to keep the new rail line totally within the state of Utah, the IERP and its proposed Colorado alignment did not play more than a minor supporting role in the new project.

7.7.3 Uinta Basin Rail Project

The state of Utah has identified transportation constraints in the Uinta Basin that limit energy production and community building activities over the next three decades. Transportation constraints in the Uinta Basin were documented in an analysis conducted by UDOT in the Uinta Basin Energy and Transportation Study that was completed in April, 2013.

In this study, the unconstrained estimates of likely-to-be economically feasible energy production were identified with input from government, academic and industry sources of information. The study concluded that there is the potential that existing and planned transportation capacity is constraining the potential for resource development.

To address the findings in the study, the USRP recognizes the potential need to provide new rail service from existing Class I rail lines to the Uinta Basin. Further study is needed to develop, evaluate and screen alternatives and then initiate the NEPA process to better understand the potential of providing new rail service into the Uinta Basin.

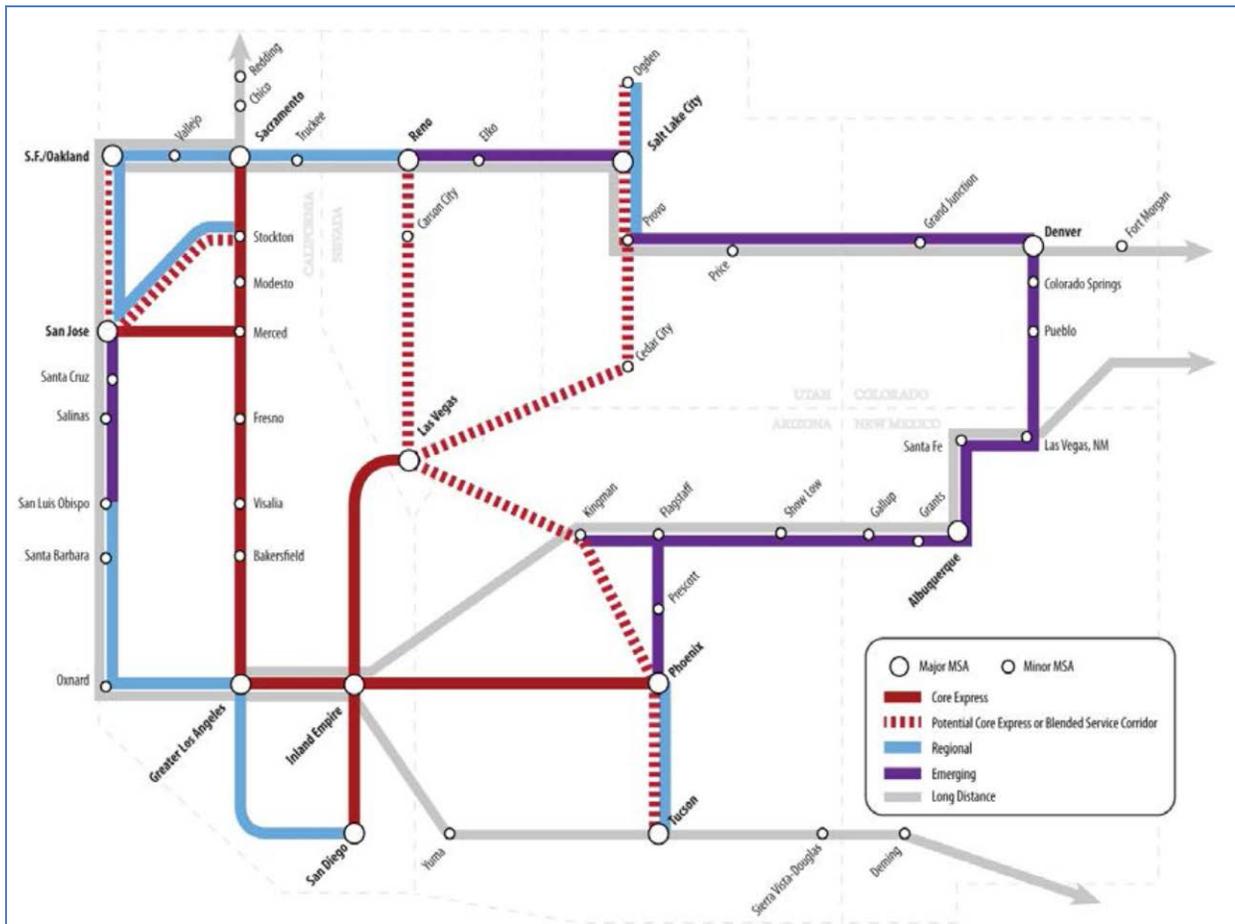
7.7.4 Southwest Multi-state Rail Planning Study – Technical Background Report

The *Southwest Multi-State Rail Planning Study* (SW Study) is the first high-performance rail (HPR) network planning study led by the FRA. FRA initiated the SW Study concurrent with its National Rail Planning Study – an effort to develop a national toolkit for the conceptual planning of HPR networks at the multi-state and mega-regional level.

The SW Study discussed two city pair corridors that include Utah. The first is Las Vegas to Salt Lake City and the second is Reno to Salt Lake City. The one city pair corridor that is not mentioned in the SW Study is Denver to Salt Lake City.

The figure below shows a map of the entire candidate corridors. The solid red lines represent the core express service while the dashed red lines potential core express service or blended service corridor. The solid blue line represents regional service while the solid purple line represents emerging service. Finally, the gray line represents existing Amtrak conventional long-distance passenger trains.

Figure 62: Candidate Corridors for Potential SW High-Performance Rail



Source: CONNECT Beta Version, 2012

*Figure identifies desired connections between metropolitan areas. It does not identify alignment or station locations and does not preclude multiple alignments within a corridor segment.

7.8 Passenger and Freight Rail Capital Projects: List all selected projects organized by rail corridor for the next 5 years and another list for years 6-20 that present the following information by project:

The state of Utah does not have any rail passenger projects on-going or planned for the five year period. The two freight rail projects currently on-going in Utah are outlined in Section 7.7 above.

Chapter 8 – Coordination and Review

Objective: Indicate how stakeholders were involved in the development and coordination of the Long-Range Rail Service and Investment Program (LRSIP) component of the State rail plan.

The scope of the Utah State Rail Plan (USRP) is far reaching, and inviting input from a wide range of stakeholders is essential to the success of the plan. Consistent with Passenger Rail Investment and Improvement Act (PRIIA) requirements, stakeholder engagement and public outreach was a cornerstone of the USRP process, providing opportunities for rail stakeholders as well as the general public to offer meaningful and thoughtful input.

8.1 Describe the approach to public and agency participation in the development of the state rail plan including public noticing, opportunities for public and agency participation, and how comments were accepted.

Agency involvement in the USRP process took two main forms. First, federal, state, and regional agencies were included on the USRP Working Group established to oversee this process. Their participation and active engagement in the process ensured that issues and concerns specific to each agency and across public entities were thoroughly and thoughtfully addressed in the process.

Second, local governments and other agencies were engaged through a comprehensive outreach effort utilizing efforts of MPOs around the state. The WFRC hosted a series of small area meetings that included each of the local governments within their jurisdiction. While these meetings were primarily aimed at preliminary work in anticipation of their upcoming long range plan process, it was also an opportunity to engage local government officials regarding concerns, issues, and plans related to the USRP and rail infrastructure and service within their areas. The USRP staff attended each of these meetings to inform local government officials about the process and to invite comments and rail-related concerns. In total, over 200 local officials, staff, and elected personnel were given the opportunity to provide input on rail conditions and future rail needs in the Wasatch Front region.

Table 45: Local Government Meetings

Cities	Date	Location
Farr West, Harrisville, North Ogden, Plain City, and Pleasant View	January 27, 2014	Pleasant View City
Hooper, Marriott-Slaterville, Roy, and West Haven	January 28, 2014	Roy City
Magna, Salt Lake City, South Salt Lake City, and West Valley City	January 30, 2014	West Valley City
Bountiful, Centerville, North Salt Lake City, and Woods Cross	February 3, 2014	Bountiful City
Draper and Sandy	February 5, 2014	Draper City
Ogden, Riverdale, South Ogden, South Weber, Uintah, and Washington Terrace	February 6, 2014	Ogden City
Farmington, Fruit Heights, Kaysville, and Layton	February 10, 2014	Farmington City
Bluffdale, Herriman, and Riverton	February 12, 2014	Riverton City
Cottonwood Heights, Holladay, Midvale, Millcreek, and Murray	February 13, 2014	Murray City
Brigham City, Perry, and Willard	February 19, 2014	Brigham City
Clearfield, Clinton, Sunset, Syracuse, and West Point	February 24, 2014	Clearfield City
Kearns, South Jordan, Taylorsville, and West Jordan	February 25, 2014	West Jordan City

In addition, USRP staff attended the technical committee meetings of all the other MPOs in the state, including WFRC, MAG, the Cache MPO, and the Dixie MPO. These technical committees are comprised of representatives from each local entity within their jurisdiction. A presentation was made about the USRP process and comments and discussion were invited from participants. The table below shows the meeting dates and locations.

Table 46: Metropolitan Planning Organization Outreach

MPO	Date	Location
Cache Metropolitan Planning Organization	June 11, 2014	Logan
Dixie Metropolitan Planning Organization	March 5, 2014	St. George
Mountainland Association of Governments	February 24, 2014	Orem
Wasatch Front Regional Council	May 7, 2014	Clearfield and Midvale

Finally, the USRP was placed on UDOT's website for public comment from July 11, 2014 to August 18, 2014. A comment area was provided for anyone that wanted to provide input by submitting their comments online.

The USRP draft was also sent to the FRA for the agency's 90-day review period. The USRP was submitted to the FRA as a draft document on July 3, 2014. On December 11, 2014, the FRA finally submitted comments to UDOT about the plan. UDOT addressed those comments and resent the USRP to the FRA on January 30, 2015 for final review. The USRP will then feed directly into the Utah Freight Plan and the UDOT Long-Range Transportation Plan. Since the USRP officially started May 2012, UDOT

used the FRA State Rail Plan Guidance dated August 2012 as the standardized format for the state rail plan.

8.2 Describe how the state rail plan was coordinated with neighboring states with respect to facilities and services that cross state boundaries.

In an effort to gather input from states where rail conditions and services impact those in Utah, the USRP process coordinated not only with neighboring states but also California, Nebraska, and Oregon, which is the origin or destination of the majority of rail freight in Utah. In February 2014, USRP staff sent a letter indicating that Utah had begun the process of developing their state rail plan and invited comments from these organizations.

Table 47: State Coordination Outreach

State	Input Received
Arizona Department of Transportation	No
California Department of Transportation	No
Colorado Department of Transportation	Yes
Idaho Transportation Department	No
Nebraska Department of Roads	No
New Mexico Department of Transportation	Yes
Oregon Department of Transportation	Yes
Wyoming Department of Transportation	Yes

The letter included a list of specific questions in order to elicit comments that would be most beneficial in developing the USRP. Those questions included:

1. Are you aware of rail operations or service in your state that affect rail movement in Utah?
2. Are you aware of rail operations or service in Utah that affect rail movement in your state?
3. Are you aware of rail plans, projects or studies that would impact rail movement in Utah?
4. Are you aware of any mode shift to or from rail that would impact rail in Utah?
5. Are you aware of rail plans, projects or studies that you need input from Utah?

Recipients were asked to respond by March 5, 2014. At the time of this writing, comments had been received from Colorado, New Mexico, Oregon, and Wyoming (a summary of their comments along with rail operation as it affects Utah is offered under section 8.4 below).

8.3 Address how the public, rail carriers, commuter and transit authorities operating in, or affected by rail operations within the state, units of local government, and other interested parties were involved in the preparation and review of the state rail plan.

UDOT understands the importance of input from a broad range of individuals and agencies across the transportation industry, local governments, and other affected groups. In order to offer the most comprehensive and continuous coordination with a wide range of interests, UDOT established the USRP Working Group that included representatives from public and private rail carriers, the local transit authority, MPOs, UDOT, FHWA, and other interested groups such as the Utah Trucking Association.

Table 48: Utah State Rail Plan Working Group

Organization	Representative(s)
Amtrak	Alex Khalfin, Bill Magazin, and Mark Sadler
BNSF Railway	Chris Bigoness, Susan Odom, Travis Thowe, and Connie Wilson
Cache Metropolitan Planning Organization	Jeff Gilbert
Comstock Mountain Lion Railroad	Alex Engelke
Dixie Metropolitan Planning Organization	Curt Hutchings and Myron Lee
Federal Highway Administration	Steve Call and Kelly Lund
Heber Valley Railroad	Mark Nelson
Kennecott Utah Copper LLC	Bryan Hendrickson
Mountainland Association of Governments	Chad Eccles
Salt Lake, Garfield & Western Railway	Chris Weesner
UDOT Planning	Jeff Harris, Daniel Kuhn, and Walt Steinvorth
UDOT Program Development	Cory Pope
UDOT Traffic and Safety	Eric Cheng
Union Pacific Railroad	Dan Harbeke
Utah Central Railway	Maurice Bowens and Paul Quintana
Utah Railway/Salt Lake City Southern Railroad	Clint Ashmead
Utah Transit Authority	Brett Coulam, Hal Johnson, and Jaime White
Utah Trucking Association	Terry Smith
Wasatch Front Regional Council	Ned Hacker and Val Halford

The working group met eight times over the course of the USRP process and was integral in providing input on key elements of the plan. The working group provided overall direction to plan development as well as comments on draft plan chapters and other documents.

Table 49: Working Group Meetings

Date	Location
May 30, 2012	UDOT in Salt Lake City
August 29, 2012	UDOT in Salt Lake City
November 28, 2012	UDOT in Salt Lake City
January 29, 2013	UDOT in Salt Lake City
March 27, 2013	UDOT in Salt Lake City
May 29, 2013	UDOT in Salt Lake City
October 30, 2013	UDOT in Salt Lake City
May 1, 2014	UDOT in Salt Lake City

Extra effort was made to reach out to companies where the movement of freight is a major factor in their day-to-day operations. For these companies, rail infrastructure and service as it pertains to the movement of freight is critical to their success. Individual meetings were held with each company shown in this table. Their freight and rail-related concerns and issues were discussed and incorporated into this plan.

Table 50: Rail Freight Shippers and Receivers Outreach

Company	Location	Inbound Freight		Outbound Freight	
		Rail	Truck	Rail	Truck
1. Ash Grove Cement	Leamington	✓	✓	✓	✓
2. Burton Lumber	Salt Lake City	✓	✓		✓
3. Cereal Food Processors	Ogden	✓	✓	✓	✓
4. Chevron Products Company	Salt Lake City	✓	✓	✓	✓
5. Circle Four Farms	Milford	✓	✓		✓
6. Comstock Mining, Inc.	Cedar City	✓		✓	
7. C.R. England Global Transportation	Salt Lake City	✓	✓	✓	✓
8. HollyFrontier Oil Refinery	West Bountiful	✓	✓	✓	✓
9. INTSEL Steel West	Salt Lake City	✓	✓	✓	✓
10. Intermountain Power Service Corporation	Delta	✓	✓	✓	✓
11. Nucor Steel	Plymouth	✓	✓	✓	✓
12. Pacific States Cast Iron Pipe Company	Provo	✓	✓	✓	✓
13. Presto Products Company	Lewiston	✓	✓		✓
14. Savage Coal Terminal	Wellington		✓	✓	
15. Scoular Company	Ogden	✓	✓	✓	✓

8.4 In general, describe issues raised during the preparation of the state rail plan and how they were addressed.

The vast majority of Utah’s mainline railroad infrastructure is owned and operated by the Union Pacific (UP). Utah has direct rail links via UP lines to Nevada, Idaho, Wyoming, and Colorado. Beyond these neighboring railroad-served states, Utah’s rail service is also impacted by the states of California, Nebraska, and Oregon owing to the major

markets, ports or railroad yards located in those states that affect train service to and through Utah. There are no railroad lines linking Utah directly with either Arizona or New Mexico. Table 45 above lists those states which were approached to provide input for this plan, and the states which responded to Utah's request.

8.4.1 Colorado

Colorado and Utah are linked via the UP's former Rio Grande Railroad line which links Salt Lake City with Denver via Provo and Grand Junction. This line sees mostly unit coal trains serving mines in eastern Utah and western Colorado, as well as limited manifest freight service to on-line shippers. Most of UP's freight, including all intermodal traffic, uses the UP Overland Route across southern Wyoming between Salt Lake City/Ogden and Denver via Cheyenne. UP's Rio Grande Line is also served by the BNSF Railway operating manifest freight service via trackage rights from Denver to Salt Lake City and on to Stockton.

From Dotsero, Colorado located east of Glenwood Springs, Colorado to Green River, the Rio Grande Line parallels I-70, and thus figures into Colorado Department of Transportation (CDOT) planning for the I-70 corridor across Colorado. Potential future high-speed rail development across the Rocky Mountains in Colorado is likely to follow the I-70 corridor in order to serve the state's western population centers as well as the famous Vail ski resort and Glenwood Springs, which is the gateway to the Aspen ski complex. Amtrak's *California Zephyr* passenger train uses the Rio Grande Line en route from Chicago to the San Francisco Bay Area.

CDOT expressed concerns about the frequent rock falls and other geology and weather-related problems and delays found along the Rio Grande Line through the several canyons of the Colorado River which the railroad uses to traverse the western slope of the Rocky Mountains. The single-tracked 6.21-mile long Moffat Tunnel, through the Continental Divide, which at 9,239 feet above sea level is the highest mainline railroad location in the United States, was also mentioned as a rail traffic chokepoint on the Rio Grande Line. CDOT also made mention of the recent return of Amtrak service to the historic Denver Union Station following extensive modifications to that facility.

There is another railroad linking Colorado with Utah, which is located in the northwestern portion of Colorado. The Deseret Power Railroad, built in the early 1980's as the Deseret Western Railway, is an isolated energy railroad that delivers coal from the Deserado Mine near Rangely to the Bonanza Steam Power Plant near Bonanza in northeastern Utah. The mine, railroad and the power plant are owned and operated by Deseret Generation and Transmission. The Deseret Power Railroad is about 35 miles long, is electrically powered and is totally isolated from the rail network of America. All

locomotives and rolling stock for this railroad must be trucked in over the region's two lane highways from the nearest railroad served points which are Rifle and Craig.

8.4.2 New Mexico

As already mentioned, there are no direct rail links between Utah and New Mexico. The primary railroad lines serving New Mexico are the BNSF Railway's Chicago to Texas to California Transcon mainline across the north-central part of the state, and the UP's Sunset Route linking Southern California with the Midwest and south via El Paso, located across the southern portion of the state. Both of these lines are east/west in nature with no north/south railroad in existence in that region of the west.

The only potential railroad development in New Mexico which could potentially impact Utah would be the proposed building of a line linking Farmington in northwestern New Mexico to the BNSF Transcon near Thoreau, New Mexico on the Continental Divide east of Gallup, New Mexico. This line would link the U.S. rail system with the coal, oil and gas deposits found in the Farmington area, and could potentially benefit similar deposits just over the border in southeastern Utah. Such a line would also introduce manifest railroad freight service into a region currently without such service.

8.4.3 Oregon

Utah is connected to Oregon via UP's Utah Northern Line which links Ogden and the Wasatch Front with the UP's northwest mainline at McCammon, a few miles southeast of the railroad's division point at Pocatello. From Pocatello, trains travel northwest via Nampa, Idaho and LaGrande, Oregon to the big hump-equipped Hinkle Yard located near the town of Hermiston, Oregon. Hinkle Yard is the hub of the UP in the northwest, with mainlines radiating out to Portland; Seattle and Spokane, Washington, the Canadian Pacific Railway on the Canadian border in northern Idaho, and to southern Idaho, Utah and the Midwest.

Most of UP's east/west freight traffic to and from Oregon bypasses Utah via Soda Springs and Montpelier, Idaho, and Kemmerer, Wyoming, with only a daily manifest train operating between Hinkle, Oregon and Salt Lake City's Roper Yard via Pocatello and McCammon, Idaho. This same routing was served by Amtrak's Seattle to Salt Lake City *Pioneer* passenger train prior to its June, 1991 rerouting across southern Wyoming and its subsequent discontinuance on May 10, 1997.

8.4.4 Wyoming

There is more railroad freight traffic on UP's Overland Route mainline linking Ogden with southern Wyoming than is found on any other railroad line in the state. As the original UP end of America's first transcontinental railroad, the Overland Route east of Ogden handles the combined total of east/west freight traveling to and from not only the former SP Overland Route west of Ogden, but the former Western Pacific Feather River Route west of Salt Lake City, and the Salt Lake Route mainline that links Utah with Southern California. The only sizeable railroad freight traffic crossing southern Wyoming on UP's Overland Route that does not pass through Utah are the trains traveling to and from the Pacific Northwest (see the Oregon section above), as well as coal and soda ash trains which originate at mines along the UP in southern Wyoming.

Wyoming and Utah share in the slow decline of coal shipments by rail, owing to changing environmental regulations and the switch to natural gas-fired steam power plants. However, Wyoming originates far more coal shipments by rail from its huge mines in the Powder River Basin of northeastern Wyoming than what is produced from Utah's small-by-comparison underground coal mines. The two states also share in the rapid growth of crude oil shipments by rail from their respective oil reserves, which represent much different crude oil from that currently being extracted from the Bakken formation in North Dakota and eastern Montana.

8.5 Describe how recommendations made by participants such as railroads, agencies, authorities, and municipalities within the state, or in the region in which the state is located, were appropriately considered and presented in this rail plan.

As with all comments received, a comment register has been developed to show the comment received, the person or organization that commented, the date of the comment, and what action, if any, was taken to address the comment. The comment register can be found in the Appendix of this document.

8.6 Describe how the state coordinates state rail planning with other state transportation planning programs and activities including those conducted under Section 135 of Title 23.

Statewide rail planning in Utah is provided by staff within the Planning Division of UDOT. The Planning Division staff works together to develop the state's long-range transportation plan, along with input from UDOT Regions. Rail planning and freight planning are both done by the same staff person at UDOT Planning, who is responsible for outreach and issue coordination with agencies and stakeholders throughout the state. Because Planning Division staff works collaboratively on statewide long-range transportation plans and with MPO's transportation plans, rail and freight projects get included in those plans as well as in Utah's Unified Transportation Plan.

Glossary of Terms

Amtrak: Trade name of the National Railroad Passenger Corporation, established in 1971 to take over intercity rail passenger service from private railroads that no longer had a financial incentive to provide such service.

Branch Line: A rail track which connects into a railroad main line.

Class I Railroads: As defined by the Association of American Railroads, have annual revenue exceeding \$453 million and account for 69 percent of the industry's mileage, 90 percent of its employees, and 94 percent of its freight revenue. They operate in 44 states and the District of Columbia and concentrate largely on long-haul, high-density intercity traffic. There are seven Class I railroads: BNSF Railway Company, Canadian Pacific Railway, CN, CSX Transportation, Kansas City Southern Railway Company, Norfolk Southern Railway Company, and Union Pacific Railroad. The BNSF and Union Pacific operate in Utah.

Classification Yard: A railroad freight yard used to separate railroad cars on to one of several tracks, building new trains in the process. Cars are first taken to a track, called a lead or a drill track, and then sent through a series of switches, called a ladder, to the classification tracks. Larger yards tend to put the lead on an artificial hill, called a hump, so that gravity may propel the cars through the ladder. There are three types of classification yards: flat - shunted yards, hump yards, and gravity yards.

Commuter Rail: Passenger rail service that operates within a metropolitan area (also called metropolitan rail, regional rail or suburban rail) or between two nearby metropolitan areas (e.g., Ogden and Provo). Commuter Rail most often connects a central city with its suburbs.

Division: A geographical unit used by railroads to divide their operations for administrative purposes.

Environmental Impact Statement (EIS): Section 102 of the National Environmental Policy Act requires federal agencies to incorporate environmental considerations in their planning and decision - making through a systematic interdisciplinary approach. All federal agencies are to prepare detailed statements assessing the environmental impact of, and alternatives to, major federal actions significantly affecting the environment. Such a statement is called an EIS.

Federal Railroad Administration (FRA): The FRA was created by the Department of Transportation Act of 1966 (49 U.S.C. 103, Section 3(e)(1)). The purpose of FRA is to: promulgate and enforce rail safety regulations; administer railroad assistance programs; conduct research and development in support of improved railroad safety and national

rail transportation policy; provide for the rehabilitation of Northeast Corridor rail passenger service; and consolidate government support of rail transportation activities. The FRA operates through seven divisions.

Flyover: A grade - separated crossing of two transportation facilities, where one line is physically elevated over the other. Also called an overpass or underpass.

High - speed Rail: A mode that provides frequent passenger service between major population centers typically 100 to 600 miles apart, routinely achieves operating speeds of 110 mph or more, and may use shared tracks if equipped with positive train control (PTC) technology. According to the FRA, "service...is time - competitive with air and/or automobile travel in a given intercity corridor." Top speeds of 125 mph or more generally require completely grade - separated tracks and dedicated right - of - way. The FRA defines three levels of high - speed rail: express (with top speeds of at least 150 mph), regional (with top speeds of 110 to 150), and emerging (with typical speeds of 90 to 110).

Industrial Lead: A relatively short length of privately operated and maintained rail track, originating from a rail line and serving industrial uses. Can also be referred to as a spur.

Intercity Passenger Rail: Refers to conventional rail passenger service connecting cities approximately 100 miles or more apart. In the U.S., outside the Northeast Corridor, top speeds may range from 79 mph to approximately 90 mph. (Amtrak) Intercity rail passenger service generally operates on tracks owned by private freight railroads which is shared with freight trains, commuter rail or both.

Intermodal: Refers to the movement of freight by more than one mode of transportation. The railroad industry applies the term to container and trailer on flat car transportation only.

Light Rail Transit: An urban transit system evolved from the streetcars and trolleys of an earlier era. The term "light rail" was coined in the 1970s when such systems developed with more modern technology.

Mainline: The principal track that connects two points; it usually has sidings, spurs, and yards at a number of locations to serve customers, and to hold freight cars.

Metropolitan Planning Organization (MPO): A federally mandated and federally funded transportation policy-making organization in the United States that is made up of representatives from local government and governmental transportation authorities. The United States Congress passed the Federal-Aid Highway Act of 1962, which required the formation of an MPO for any urbanized area with a population greater than 50,000.

Federal funding for transportation projects and programs are channeled through this planning process.

Passenger Rail Investment and Improvement Act (PRIIA) (Public Law 110-432): Reauthorized the National Railroad Passenger Corporation (Amtrak) and strengthened the U.S. intercity passenger rail network by tasking Amtrak, the U.S. Department of Transportation (USDOT) , Federal Railroad Administration (FRA), States, and other stakeholders with improving service, operations, facilities, and authorizing funding for these activities.

Positive Train Control (PTC): Refers to technology that can prevent train - to - train collisions, overspeed derailments, and casualties or injuries to railway workers operating within their limits of authority as a result of unauthorized incursion by a train. PTC can also prevent train movements through a switch left in the wrong position. PTC systems vary widely in complexity and sophistication, based on their level of automation, the system architecture, the wayside system on which they are based (e.g., non - signaled, block signal, cab signal), and the degree of train control they can assume. The federal Rail Safety Improvement Act of 2008 mandates the widespread installation of PTC systems by December 2015.

Quiet Zone: A segment of track, typically in an urbanized area, in which an agreement between local government and the railroad removes the requirement of sounding train whistles or horns, at least during specified hours. In return, the local jurisdiction may pay for and install additional safety measures, such as grade - separated road crossings or four - quadrant gates to enhance safety.

Section 130: An FHWA - administered program that provides funding to states for use in highway - rail grade crossing safety improvement projects.

Section 403(b): As part of the National Railroad Passenger Service Act of 1970, federal Amtrak legislation allows under Section 403(b) for a state or states to apply to Amtrak to establish rail service within their state(s) if they agree to pay at least 45 percent of the first year operating costs and 65 percent in the years thereafter.

Short Line and Regional Railroads: As defined by the Association of American Railroads, account for 31 percent of U.S. freight rail mileage and 10 percent of employees. They range in size from small operators handling a few carloads a month to multi-state operators close to Class I size. More than 560 short line and regional railroads operate in every U.S. state except Hawaii and often feed traffic to Class I railroads and receive traffic from Class I railroads for final delivery.

Siding: A section of track adjacent to a mainline used for passing trains on single track routes or switching moves. Sidings are sometimes used for storing rolling stock or

freight. A siding is also used as a form of rail access for warehouses and other businesses.

Spur: A stretch of rail that branches off the main line. Different from a siding or stub, spurs can be miles in length, and usually have only one destination at the end.

Switching and Terminal Railroads: As defined by the Association of American Railroads, usually perform pick-up and delivery services within a port or industrial area, or move traffic between other railroads. Many switching and terminal railroads were once branch lines of larger railroads that were sold off, or portions of mainlines that had been abandoned.

Subdivision: A railroad division may be divided into a number of subdivisions for ease of operations.

Surface Transportation Board (STB): The STB is an economic regulatory agency charged with resolving freight railroad rate and service disputes, reviewing proposed rail mergers, rail line purchases, constructions and abandonments. The Board also oversees Amtrak's on-time performance and has jurisdiction over other matters.

Switch: As a noun, refers to track equipment that allows cars to move, or cross over, from one track to another. The verb refers to shuffling or moving rail cars, usually within a yard (also called marshaling).

Trackage Rights: An agreement between two railroads whereby one buys the right to run its trains on the tracks of the other.

Transloading: The transfer of a shipment from one mode of transportation to another. According to one source, "transloading" has become specialized to mean non - containerized freight transportation using more than one mode. This source uses "intermodal" to refer to "multimodal one - container transportation," and "transloading" to refer to "multimodal non - containerized movement."

Wye: A triangular shaped arrangement of railway tracks with a switch at each corner. In mainline railroads, this is used at a railway junction, where two railways join, or cross over. It can also be used as a stub for turning railway equipment. By performing the railway equivalent of a three - point turn, the direction of a locomotive or railway vehicle can be reversed.

Yard: A system of tracks, other than main tracks and sidings, used for making up trains, storing cars or other purposes.

Appendix

USRP Working Group Agenda and Meeting Notes for May 30, 2012
USRP Working Group Agenda and Meeting Notes for August 29, 2012
USRP Working Group Agenda and Meeting Notes for November 28, 2012
USRP Working Group Agenda and Meeting Notes for March 27, 2013
USRP Working Group Agenda and Meeting Notes for May 29, 2013
USRP Working Group Agenda and Meeting Notes for October 30, 2013
USRP Working Group Agenda and Meeting Notes for January 29, 2014
USRP Working Group Agenda and Meeting Notes for May 1, 2014
Additional Utah Railroad Resources

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, May 30, 2012

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room.

Invited Working Group

Camille Alexander, InterPlan (consultant)
Clint Ashmead, Utah Railway/SLCSRR
Maurice Bowens, Utah Central Railway
Eric Cheng, UDOT Traffic & Safety
Dave Creer, Utah Trucking Association
Jeff Gilbert, Cache MPO
Andrew Gruber, WFRC
Dan Harbeke, Union Pacific Railroad
Andrew Jackson, MAG
Vern Keeslar, InterPlan (consultant)

Daniel Kuhn, UDOT Planning
Myron Lee, Dixie MPO
Aaron Moody, BNSF Railway
Matt Riffkin, InterPlan (consultant)
Cory Pope, UDOT Program Development
Mark Sadler, Amtrak
Matt Sibul, Utah Transit Authority
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Chris Weesner, SLG&W Railway

Agenda

1. Introductions
2. Current Rail Providers in Utah
 - a. Freight
 - b. Passenger
3. Passenger Rail Investment and Improvement Act (PRIIA) of 2008
 - a. State Rail Plans
 - b. Purpose of State Rail Plans
 - c. State Rail Plan Requirements
4. Proposed Process
5. Individual and Roundtable Discussion
 - a. What are your expectations for the Utah State Rail Plan?
 - b. What information and data can you provide?
 - c. Who else is needed on the Working Group?
 - d. Other issues?
6. Proposed Next Meeting
 - a. Date: Wednesday, August 29, 2012
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, May 30, 2012

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Aaron Moody, BNSF Railway
Matt Riffkin, InterPlan (consultant)
Cory Pope, UDOT Program Development
Mark Sadler, Amtrak
Matt Sibul, Utah Transit Authority
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Chris Weesner, SLG&W Railway

Agenda

1. Daniel Kuhn welcomed everyone to the meeting and everyone introduced themselves. Those in attendance included the following: Daniel Kuhn, UDOT, Vern Keeslar, InterPlan, Jennifer Rose, InterPlan, Dan Harbeke, Union Pacific, Jeff Gilbert, Cache MPO, Paul Quintana, Utah Central Railway, Matt Riffkin, InterPlan, Walt Steinvorth, UDOT, Mark Sadler, Amtrak, Bill Magazin, Amtrak, Eric Cheng, UDOT, Bruce Barrett, BNSF Railway, Aaron Moody, BNSF Railway, Brett Coulam, UTA, Hal Johnson, UTA, Ned Hacker, WFRC, Cory Pope, UDOT, Myron Lee, Dixie MPO (by phone).
2. A presentation was given by Daniel Kuhn and Vern Keeslar listing the current rail providers for both freight and passengers in Utah.
3. Vern Keeslar presented information about Passenger Rail Investment and Improvement Act (PRIIA) of 2008 in regards to state rail plans, their purpose, how they are voluntary, and if a state does a rail plan what is required.
4. Vern Keeslar presented the proposed process of doing a state rail plan for Utah. He explained the proposed time would be about 18-24 month with working group meetings every three months and UDOT would be the authorized body to submit the state rail plan to the Federal Railroad Administration (FRA) for approval.
5. Everyone had the opportunity to provide comments, questions and suggestions about the state rail plan. They included the following:

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- a. Rail Plan Terms – How long out can they be? (20 yrs, 50 yrs, etc.)
- b. What is the definition of Intermodal?
- c. FRA has been doing a study of the rail plan. They have applied for a grant thru Nevada DOT. What is the demand and future need for a rail plan? FRA is interested in updating the rail plan.
- d. BSNF (Aaron) – What does a Rail Plan usually involve?
- e. UTA – How does it impact the local transit plans? How will ridership be affected?
- f. UDOT – Where will the funding come from?
- g. AMTRAK – Wants to review the rail plan from 1996 (might be helpful in creating the new rail plan). Are there any expansion plans?
- h. UTA (Hal) – What is the expansion plans? Will there be additional rail plans with other MPO's? What kind of public involvement will there be? How will it differ from Nevada?
- i. UDOT (Walt) – Can it be coordinated with the uPlan or with the Long Range Plan?
- j. UDOT (Cory) – Concerned with funding issues. Should take advantage of the knowledge of others. We're asking a lot from carriers! What can we do to help? What can we provide? LRP, economic development in UT. We need to make it valuable to all partners.
- k. InterPlan (Matt) – Need to balance the PRIIA and bureaucrat's needs. Where are we going with the rail plan?
- l. WFRC (Ned) – 20 yr plan? Who are the partners? (UDOT & UTA). It's critical to have a rail plan. Is there a regional travel model that focuses on rail plan? We should look at an improved freight model. What are the freight needs and desires? Economic development around stations?
- m. UT Central (Paul) – How the Ogden area will be involved or affected? What is the economic value? Worried that they will have to continue turning business away because of the lack of model transportation.
- n. UP (Dan) – Balancing and understanding the things that can and cannot be shared. Rail expansion? Making sure that the funding is available.
- o. Cache MPO (Jeff) – Don't want to lose their spur. Help understanding how they can keep it going and functioning. Passenger rail, maps, etc. Maybe worth looking at a 50 yr plan.
- p. DMPO (Myron) – The railroad doesn't reach there. Wants to see plans in the Milford area. Are there any plans of expanding? Would it be coming from Vegas?
- q. UP (Dan) – Agrees that we do have a good process in place. May need one on one interviews. Different types of material provided (i.e. canned material). Daily train counts. UP has already given data to Idaho and would be willing to

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- provide that same info to us. Idaho has a 12 month process in place (4 meetings a year).
- r. InterPlan (Matt) – Should we meet with airports, truckers, etc.
 - s. UTA (Hal) – Should Envision Utah be involved? They could potentially help.
 - t. AMTRAK (Mark) – Ridership and origin numbers. To what extent did we participate in the other state plans? Would like to review the 1996 rail plan.
 - u. BNSF (Aaron) – There are things they can and cannot share, but are more than happy to help the best that they can.
 - v. Cache MPO (Jeff) – To what extent will we use public involvement?
 - w. UDOT (Walt) – Public involvement? Could get public involvement thru the LRP to help cut back on the funding issues for the rail plan?
 - x. UDOT (Cory) – Are there urgencies or applications for grants?
6. The next meeting was scheduled for Wednesday, August 29, 2012 at 10:00 a.m. to 11:30 a.m. at UDOT in the first floor conference room.

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, August 29, 2012

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room.

Invited Working Group

Camille Alexander, InterPlan (consultant)

Clint Ashmead, Utah Railway/SLCSRR

Bruce Barrett, BNSF Railway

Maurice Bowens, Utah Central Railway

Eric Cheng, UDOT Traffic & Safety

Brett Coulam, Utah Transit Authority

Dave Creer, Utah Trucking Association

Jeff Gilbert, Cache MPO

Andrew Gruber, WFRC

Ned Hacker, WFRC

Dan Harbeke, Union Pacific Railroad

Andrew Jackson, MAG

Hal Johnson, Utah Transit Authority

Vern Keeslar, InterPlan (consultant)

Daniel Kuhn, UDOT Planning

Myron Lee, Dixie MPO

Bill Magazin, Amtrak

Scott Martin, SB&G Railroad

Aaron Moody, BNSF Railway

Matt Riffkin, InterPlan (consultant)

Cory Pope, UDOT Program Development

Paul Quintana, Utah Central Railway

Mark Sadler, Amtrak

Matt Sibil, Utah Transit Authority

Walt Steinvorth, UDOT Planning

John Thomas, UDOT Planning

Chris Weesner, SG&W Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. Definition of Terms, Acronyms, and Scope – Vern Keeslar
3. Maps and uPlan– Daniel Kuhn and Nick Kenczka
4. Individual Railroad Coordination Meetings – Daniel Kuhn
5. Utah Trends – Matt Riffkin
6. State Rail Plan Guidance and Schedule – Vern Keeslar
7. Proposed Next Meeting – Daniel Kuhn
 - a. Date: Wednesday, November 28, 2012
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, August 29, 2012

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room.

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Paul Quintana, Utah Central Railway
Mark Sadler, Amtrak
Matt Sibul, Utah Transit Authority
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Chris Weesner, SG&W Railway

Agenda

1. Daniel Kuhn welcomed everyone to the meeting and everyone introduced themselves. Those in attendance included the following: Matt Riffkin, InterPlan, Camille Alexander, InterPlan, Walt Steinvorth, UDOT, Chris Weesner, SLGW, Maurice Bowens, Utah Central Railway, Eric Cheng, UDOT, Clint Ashmead, Utah Railway/SLCSRR, Brett Coulam, UTA, Ned Hacker, WFRC, Chad Eccles, MAG, Travis Thowe, BNSF, Connie Wilson, BNSF, Chris Bigoness, BNSF, Dan Harbeke, Union Pacific Railroad, Daniel Kuhn, UDOT Planning, Nick Kenczka, UDOT, Vern Keeslar, InterPlan, Jeff Gilbert, CMPO
2. Vern Keeslar handed out "Utah State Rail Plan Definitions."
3. Vern Keeslar and Daniel Kuhn handed out maps to each individual Railroad with their specific rail lines highlighted. Vern and Dan are intending to meet individually with each railroad to discuss what tracks are operating in the state. Ned Hacker asked if the maps included: spurs, rails to trails, abandoned, inactive? InterPlan mapped existing rail lines and some spurs if they are longer. This map is intended to be a high level map.

4. Nick Kenczka spoke about UPLAN and how to use it, how to sign up for a username and password. He went over how to post a comment using the pushpins. Vern mentioned we will send out an email to get a username and password today or tomorrow. If you do have GIS shapefiles of the rail lines we would love to have that data. Travis Thowe asked if this a map of ownership, trackage rights? Vern Keeslar stated that InerPlan was showing both trackage rights and operations on this map. InterPlan wants to know where the railroad is operating and if they own the rail. In the individual meetings we will bring a questionnaire and go over both the UPLAN map and/or the hard copy map.
5. Matt Riffkin, InterPlan gave a presentation on Utah Trends.
 - a. We can look at safety needs, capacity, trends, growth areas we need to serve in the future.
 - b. The presentation is an overview of what we're looking at in the future.
 - c. There are 2.5 million people in Utah today, and in 2050 expected population is 5 million people.
 - d. Three out of four people live within five miles of I-15 and four out of five jobs are within five miles of I-15.
 - e. A lot of growth is happening in small areas such as St. George and Logan.
 - f. Trade has moved from the Atlantic Ocean to the Pacific Ocean, which means more freight and trucks coming from ports on western side of the country.
 - g. Due to the geographical area, much of the freight comes through highways or railroads into Utah.
 - h. We have seen an increase in truck traffic but not rail. It is not uncommon to have 30 to 50 percent truck traffic on highways in Utah. We want to look at how rail can help.
 - i. UDOT is beginning an energy development study in the Uintah Basin due to high energy production in the state. Fuel prices are projected to grow slowly.
 - j. Warehouse industry has a lot of potential for warehouse growth on the west side of the Salt Lake Valley, near the S.R. 201 corridor.
 - k. The State Rail Plan will influence the employment and industry.
 - l. Dan Kuhn added, even in a downturn economy there are still warehouses being built, meaning the economy is still good in Utah.
6. Vern Keeslar handed out the "Standardized State Rail Plan Guidance."
 - a. Vern went over the outline of Standardized State Rail Plan Format and added that this is open for comments for the next 60 days.
 - b. There was a discussion about if there was a state highway plan being developed as well?
 - c. Walt Steinworth mentioned that it was finished last year and they updated that plan every four years.

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- d. Vern stated that project lists can be developed for the State Rail Plan in order to know what the needs are in Utah.
 - e. Matt Riffkin said that we can overlay the other maps on UPLAN such as highways, safety, population growth, freight growth.
 - f. Walt Steinvorth creates the long range plan but also puts together another plan, the Unified Transportation Plan for the State Legislature. We are getting good at coordination of the Unified Transportation Plan, but it is harder to produce for larger states.
 - g. Dan Kuhn said that he wants to make sure that you are comfortable with these maps and the needs of your rail line.
 - h. Vern Keeslar stated that this plan will look at the 20 year vision and in this working group we would like your help in the developing the vision for the plan.
 - i. Dan Kuhn stated that he will also look at Donner Pass and other areas that are outside of the state, but still affect the rail lines within the state.
 - j. Vern Keeslar stated that we would like to have the first four chapters written by July 1, 2013.
 - k. Vern Keeslar handed out the working group schedule and said by the next meeting we should have the inventory of rail lines finalized.
7. Proposed Next Meeting – Daniel Kuhn
- a. Date: Wednesday, November 28, 2012
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, November 28, 2012

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Camille Alexander, InterPlan (consultant)
Clint Ashmead, Utah Railway/SLCSRR
Bruce Barrett, BNSF Railway
Chris Bigoness, BNSR Railway
Maurice Bowens, Utah Central Railway
Eric Cheng, UDOT Traffic & Safety
Rick Clasby, Utah Trucking Association
Brett Coulam, Utah Transit Authority
Jeff Gilbert, Cache MPO
Andrew Gruber, WFRC
Ned Hacker, WFRC
Dan Harbeke, Union Pacific Railroad
Andrew Jackson, MAG
Hal Johnson, Utah Transit Authority
Vern Keeslar, InterPlan (consultant)

Daniel Kuhn, UDOT Planning
Myron Lee, Dixie MPO
Kelly Lund, FHWA
Bill Magazin, Amtrak
Scott Martin, SB&G Railroad
Aaron Moody, BNSF Railway
Matt Riffkin, InterPlan (consultant)
Cory Pope, UDOT Program Development
Paul Quintana, Utah Central Railway
Mark Sadler, Amtrak
Matt Sibul, Utah Transit Authority
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Chris Weesner, SG&W Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. Map Meetings Update (handout) – Daniel Kuhn
3. Individual Railroad Information Update (handout) - Daniel Kuhn
4. Trends and Vision – Matt Riffkin
 - a. Key Pad Polling
5. Revised Definitions (handout) – Vern Keeslar
6. Plan Status Update – Daniel Kuhn
7. Proposed Next Meeting – Daniel Kuhn
 - a. Date: Wednesday, February 27, 2013
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, November 28, 2012

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Camille Alexander, InterPlan (consultant)

Clint Ashmead, Utah Railway/SLCSRR

Bruce Barrett, BNSF Railway

Chris Bigoness, BNSR Railway

Maurice Bowens, Utah Central Railway

Eric Cheng, UDOT Traffic & Safety

Rick Clasby, Utah Trucking Association

Brett Coulam, Utah Transit Authority

Jeff Gilbert, Cache MPO

Andrew Gruber, WFRC

Ned Hacker, WFRC

Dan Harbeke, Union Pacific Railroad

Andrew Jackson, MAG

Hal Johnson, Utah Transit Authority

Vern Keeslar, InterPlan (consultant)

Daniel Kuhn, UDOT Planning

Myron Lee, Dixie MPO

Kelly Lund, FHWA

Bill Magazin, Amtrak

Scott Martin, SB&G Railroad

Aaron Moody, BNSF Railway

Matt Riffkin, InterPlan (consultant)

Cory Pope, UDOT Program Development

Paul Quintana, Utah Central Railway

Mark Sadler, Amtrak

Matt Sibul, Utah Transit Authority

Walt Steinvorth, UDOT Planning

John Thomas, UDOT Planning

Chris Weesner, SG&W Railway

Agenda

1. Daniel Kuhn welcomed everyone to the meeting and everyone introduced themselves. Those in attendance included the following: Clint Ashmead, Utah Railway/SLCSRR, Chris Bigoness, BNSF Railway, Brett Coulam, Utah Transit Authority, Chad Eccles, MAG, Jeff Gilbert, Cache MPO, Ned Hacker, WFRC, Vern Keeslar, InterPlan, Nick Kenczka, UDOT Planning, Daniel Kuhn, UDOT Planning, Matt Riffkin, InterPlan, Walt Steinvorth, UDOT Planning, Chris Weesner, Salt Lake, Garfield and Western Railway.
2. Daniel Kuhn updated everyone about the progress of meeting with the railroad partners concerning the maps showing railroad operating, ownership, and trackage rights. He distributed a handout that he gives out at the railroad meetings.
3. Daniel Kuhn also discussed the another handout that he has distributed to the railroads concerning a brief history, rail miles in Utah, and positive economic impacts to Utah like number of employees, payroll, and taxes paid.

Utah State Rail Plan 2015

4. Matt Riffkin gave a presentation concerning rail trends in the United States and Utah. He used a special presentation where instant feedback was obtained through anonymous voting within the Working Group through key pad polling. The presentation and voting results will be emailed to the Working Group. There was discussion about the data trends, answers to the questions, and results of the voting. The Working Group was engaged in discussion during the presentation.
5. Vern Keeslar distributed a “Definitions” handout and asked for public comment.
6. Daniel Kuhn gave a brief update to the Utah State Rail Plan process and schedule.
7. Daniel Kuhn stated that the next Utah State Rail Plan meeting will be the following:
 - a. Date: Wednesday, February 27, 2013
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, March 27, 2013

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Library Conference Room.

Invited Working Group

Camille Alexander, InterPlan (consultant)

Clint Ashmead, Utah Railway/SLCSRR

Bruce Barrett, BNSF Railway

Chris Bigoness, BNSR Railway

Maurice Bowens, Utah Central Railway

Eric Cheng, UDOT Traffic & Safety

Rick Clasby, Utah Trucking Association

Brett Coulam, Utah Transit Authority

Jeff Gilbert, Cache MPO

Andrew Gruber, WFRC

Ned Hacker, WFRC

Val Halford, WFRC

Dan Harbeke, Union Pacific Railroad

Andrew Jackson, MAG

Hal Johnson, Utah Transit Authority

Alex Khalfin, Amtrak

Vern Keeslar, InterPlan (consultant)

Daniel Kuhn, UDOT Planning

Myron Lee, Dixie MPO

Kelly Lund, FHWA

Bill Magazin, Amtrak

Scott Martin, SB&G Railroad

Aaron Moody, BNSF Railway

Matt Riffkin, InterPlan (consultant)

Cory Pope, UDOT Program Development

Paul Quintana, Utah Central Railway

Mark Sadler, Amtrak

Matt Sibul, Utah Transit Authority

Walt Steinvorth, UDOT Planning

John Thomas, UDOT Planning

Chris Weesner, SG&W Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. Freight Railroad Questionnaire – Daniel Kuhn
3. Passenger Railroad Questionnaire – Daniel Kuhn
4. Major Rail Commodities in Utah – Vern Keeslar
5. Railroad Gaps Serving Commodities in Utah – Vern Keeslar
6. Railroad Capacity Issues – Vern Keeslar
7. Yards and Terminals – Daniel Kuhn
8. Proposed Next Meeting – Daniel Kuhn
 - a. Date: Wednesday, May 29, 2013
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, March 27, 2013

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Library Conference Room.

Invited Working Group

Camille Alexander, InterPlan (consultant)
Clint Ashmead, Utah Railway/SLCSRR
Bruce Barrett, BNSF Railway
Chris Bigoness, BNSR Railway
Maurice Bowens, Utah Central Railway
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Jeff Gilbert, Cache MPO
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Val Halford, WFRC
Dan Harbeke, Union Pacific Railroad
Andrew Jackson, MAG
Hal Johnson, Utah Transit Authority
Alex Khalfin, Amtrak

Vern Keeslar, InterPlan (consultant)
Daniel Kuhn, UDOT Planning
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Cory Pope, UDOT Program Development
Paul Quintana, Utah Central Railway
Mark Sadler, Amtrak
Matt Sibul, Utah Transit Authority
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Chris Weesner, SG&W Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn

Daniel Kuhn welcomed everyone to the meeting and thanked them for their attendance. Those who were in attendance included Daniel Kuhn, Bruce Barrett, Nick Kenczka, Val Halford, Chris Bigoness, Eric Cheng, Camille Alexander, Brett Coulam, Ned Hacker, Dan Harbeke, Matt Riffkin, Walt Steinvorth, and Vern Keeslar.

2. Freight Railroad Questionnaire – Daniel Kuhn

Daniel Kuhn mentioned that the Freight Railroad Questionnaire deadline date is April 1, 2013. He asked if anyone had any questions about the questionnaire. Brett Coulam stated that Vern Keeslar was answering his questions. Daniel Kuhn mentioned that he may need to meet with the freight railroads personally about answers supplied by the railroads in the questionnaire.

3. Passenger Railroad Questionnaire – Daniel Kuhn

Daniel Kuhn mentioned that the Passenger Railroad Questionnaire deadline date is May 1, 2013. He asked if anyone had any questions about the questionnaire.

4. Major Rail Commodities in Utah – Vern Keeslar

Vern Keeslar passed out a handout that showed imports and exports in Utah by rail for 2011. A question was asked by Val Halford why does Utah import 77 percent of coal? Daniel Kuhn explained certain power plants in Utah begin to blend the coal. Daniel Kuhn also stated that the handout is from FAF data and it is specifically by rail. It is in and out of Utah what originates and terminates here by rail only. The group was divided into two different groups to discuss rail commodities, their growth, and if the growth of the commodity can be served by existing and future rail.

5. Railroad Gaps Serving Commodities in Utah – Vern Keeslar

Vern Keeslar passed out rail lines map of Utah to have the group identify any gaps of service, either existing or future. A comment was brought up of perhaps serving Uintah/Duchesne County. There is a study underway to look at rail lines through these counties. People think it is possible to have rail, but it is expensive and the resources need to have a return on investment.

- a. Daniel Kuhn stated that the UDOT is taking the lead of simply trying to identify the gaps in the state. Please mark your maps of where you think we have gaps.
- b. Dan Harbeke stated that building some in the south coast. But they rely on private investors to say we need a rail line in a certain place. It is hard for rail lines to pinpoint where growth is going to be.
- c. Walt Steinvorth asked how railroads identify transportations systems that have a hole in them.
- d. Dan Harbeke explained that they are having one on one conversations everyday with developers and where possible growth will be.
- e. Walt Steinvorth asked where is the interface between rail and truck?
- f. Matt Riffkin commented that Utah has the highest amount of truck movement among all states. And we are spending a lot of money on roads.
- g. Dan Harbeke said he would love to divert truck to rail. UP pays for infrastructure not tax payers. In Idaho they just approved allowing larger trucks many state roads. When approvals such as this are made it hurts the roads.
- h. Matt Riffkin commented a good goal would be to set up a process in the future so let's begin the process now.
- i. Vern Keeslar said that MAP-21 talks about a freight advisory committee for each state. This will help with the development and communication of a statewide rail plan and freight plan.

6. Railroad Capacity Issues – Vern Keeslar

Vern Keeslar handed out map of 2005 and 2035 Level of Service for rail lines in Utah. Vern Keeslar explained how level of service is calculated for roadways using an A

through F grading level similar to a school report card. UDOT doesn't design freeway to hold maximum capacity. How do railroads define capacity?

- a. Dan Harbeke stated that we don't share that information, but there are general things we could share.
- b. Vern Keeslar stated that the graphic shows that if no improvement were done between now and 2035, this is how it would look, but that is not reality since the railroad would likely construct upgrades.
- c. Dan Harbeke said that everyday UP is looking at efficiency. This graphic accounts for no planning.
- d. Daniel Kuhn stated yes, this cast a negative light on how railroads actually function. If used in a plan we would have a correct disclaimer explaining.
- e. Dan Harbeke stated that this graphic does help illustrate how much capital we need to sink into it.
- f. Matt Riffkin asked what capacity does rail operate at?
- g. Dan Harbeke said that we don't disclose that information, but operate at the best safest rail they can even if it is 10 mph.
- h. As far as the map is concerned they are more comfortable with showing what the 2007 study looked at.
- i. Vern Keeslar asked what are your capital improvement programs? What do you want us to show 20 years from now?
- j. Dan Harbeke said that we won't be able to show 20 years from now. They can show what is current, and may not be able to show anything beyond 5 years in the future.

7. Yards and Terminals – Daniel Kuhn

Daniel Kuhn passed out a map and list and asked if the group could email the comments back. BNSF provided some comments back at the meeting.

8. Proposed Next Meeting – Daniel Kuhn

Date: Wednesday, May 29, 2013, Time: 10:00 a.m. to 11:30 a.m., Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, May 29, 2013

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Camille Alexander, InterPlan (consultant)

Clint Ashmead, Utah Railway/SLCSRR

Chris Bigoness, BNSR Railway

Maurice Bowens, Utah Central Railway

Eric Cheng, UDOT Traffic & Safety

Jason Clark, SB&G Railroad

Rick Clasby, Utah Trucking Association

Brett Coulam, Utah Transit Authority

Alex Engelke, CML Railroad

Jeff Gilbert, Cache MPO

Ned Hacker, WFRC

Val Halford, WFRC

Dan Harbeke, Union Pacific Railroad

Andrew Jackson, MAG

Hal Johnson, Utah Transit Authority

Alex Khalfin, Amtrak

Vern Keeslar, InterPlan (consultant)

Daniel Kuhn, UDOT Planning

Myron Lee, Dixie MPO

Kelly Lund, FHWA

Bill Magazin, Amtrak

Aaron Moody, BNSF Railway

Mark Nelson, Heber Valley Railroad

Matt Riffkin, InterPlan (consultant)

Jon Osier, Kennecott Utah Copper

Cory Pope, UDOT Program Development

Mark Sadler, Amtrak

Walt Steinworth, UDOT Planning

John Thomas, UDOT Planning

Chris Weesner, SG&W Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. State Rail Plan Update – Daniel Kuhn
3. Utah Transit Authority (UTA) Presentation – Hal Johnson, UTA
4. Amtrak Presentation – Alex Khalfin, Amtrak
5. Heber Valley Presentation – Mark Nelson, Heber Valley Railroad
6. Proposed Next Meeting – Daniel Kuhn
 - a. Date: Wednesday, August 28, 2013
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, May 29, 2013

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Camille Alexander, InterPlan (consultant)	Alex Khalfin, Amtrak
Clint Ashmead, Utah Railway/SLCSRR	Vern Keeslar, InterPlan (consultant)
Chris Bigoness, BNSR Railway	Daniel Kuhn, UDOT Planning
Maurice Bowens, Utah Central Railway	Myron Lee, Dixie MPO
Eric Cheng, UDOT Traffic & Safety	Kelly Lund, FHWA
Jason Clark, SB&G Railroad	Bill Magazin, Amtrak
Rick Clasby, Utah Trucking Association	Aaron Moody, BNSF Railway
Brett Coulam, Utah Transit Authority	Mark Nelson, Heber Valley Railroad
Alex Engelke, CML Railroad	Matt Riffkin, InterPlan (consultant)
Jeff Gilbert, Cache MPO	Jon Osier, Kennecott Utah Copper
Ned Hacker, WFRC	Cory Pope, UDOT Program Development
Val Halford, WFRC	Mark Sadler, Amtrak
Dan Harbeke, Union Pacific Railroad	Walt Steinvorth, UDOT Planning
Andrew Jackson, MAG	John Thomas, UDOT Planning
Hal Johnson, Utah Transit Authority	Chris Weesner, SG&W Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn, UDOT
Daniel Kuhn welcomed everyone to the meeting and everyone introduced themselves. Those present included Daniel Kuhn, Vern Keeslar, Matt Riffkin, Kelly Lund, Walt Steinvorth, Val Halford, Ned Hacker, Nick Kenczka, Brett Coulam, Hal Johnson, and Dan Harbeke. Alex Khalfin participated by phone.
2. Amtrak Presentation – Alex Khalfin, Amtrak
Alex Khalfin gave a presentation about Amtrak. He gave a brief background of Amtrak's history and funding, Amtrak's current performance, Amtrak service in Utah, PRIIA Section 209 prohibiting Amtrak funding trains less than 750 miles, and the Salt Lake City Amtrak Station. Alex also took some questions and comments about High Speed Rail and Amtrak's discontinued service of the *Deseret Wind* and *Pioneer*.
3. Utah Transit Authority (UTA) Presentation – Hal Johnson, UTA

Utah State Rail Plan 2015

Hal Johnson gave a presentation about UTA's 2015 project, which included the FrontRunner South commuter rail, the Mid-Jordan, West Valley, Airport, and the Draper TRAX light-rail lines, and the Sugarhouse Trolley line. He also discussed High Speed Rail and the Western High Speed Rail Alliance. The original HSR map did not include anything in the Intermountain West, but with alliances in Denver, Reno, Las Vegas, and Arizona, some corridors have been planned for HSR. There was some good discussion about how important it is to plan and start discussing HSR in Utah, even though it could be in the distant future.

4. State Rail Plan Update – Daniel Kuhn

Daniel Kuhn stated that one passenger railroad and four freight railroads in Utah have not submitted the questionnaire back to UDOT.

5. Heber Valley Presentation – Mark Nelson, Heber Valley Railroad

Mark Nelson was unable to attend, but is planning on attending in August to present.

6. Proposed Next Meeting – Daniel Kuhn

Daniel Kuhn said that the next meeting for the USRP is Wednesday, August 28, 2013, 10:00 a.m. to 11:30 a.m. at UDOT.

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, October 30, 2013

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Clint Ashmead, Utah Railway/SLCSRR
Chris Bigoness, BNSF Railway
Maurice Bowens, Utah Central Railway
Eric Cheng, UDOT Traffic & Safety
Jason Clark, SB&G Railroad
Rick Clasby, Utah Trucking Association
Brett Coulam, Utah Transit Authority
Chad Eccles, MAG
Alex Engelke, CML Railroad
Jeff Gilbert, Cache MPO
Ned Hacker, WFRC
Val Halford, WFRC
Dan Harbeke, Union Pacific Railroad
Jeff Harris, UDOT Planning
Hal Johnson, Utah Transit Authority
Vern Keeslar, InterPlan (consultant)
Nick Kenzcka, UDOT Planning

Alex Khalfin, Amtrak
Daniel Kuhn, UDOT Planning
Myron Lee, Dixie MPO
Kelly Lund, FHWA
Bill Magazin, Amtrak
Aaron Moody, BNSF Railway
Mark Nelson, Heber Valley Railroad
Susan Odom, BNSF Railway
Andrea Olson, InterPlan (consultant)
Cory Pope, UDOT Program Development
Paul Quintana, Utah Central Railway
Mark Sadler, Amtrak
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Travis Thowe, BNSF Railway
Chris Weesner, SG&W Railway
Connie Wilson, BNSF Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. Section 130 Funding Presentation – Eric Cheng
3. Heber Valley Railroad Presentation – Mark Nelson, Heber Valley Railroad
4. Freight and Passenger Railroads Questionnaire Follow-up – Daniel Kuhn
5. Public Involvement Plan – Andrea Olson
6. Proposed Next Meeting – Daniel Kuhn
 - a. Date: Wednesday, January 29, 2013
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, October 30, 2013

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Clint Ashmead, Utah Railway/SLCSRR
Chris Bigoness, BNSR Railway
Maurice Bowens, Utah Central Railway
Eric Cheng, UDOT Traffic & Safety
Jason Clark, SB&G Railroad
Rick Clasby, Utah Trucking Association
Brett Coulam, Utah Transit Authority
Chad Eccles, MAG
Alex Engelke, CML Railroad
Jeff Gilbert, Cache MPO
Ned Hacker, WFRC
Val Halford, WFRC
Dan Harbeke, Union Pacific Railroad
Jeff Harris, UDOT Planning
Hal Johnson, Utah Transit Authority
Vern Keeslar, InterPlan (consultant)
Nick Kenzcka, UDOT Planning

Alex Khalfin, Amtrak
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Cory Pope, UDOT Program Development
Paul Quintana, Utah Central Railway
Mark Sadler, Amtrak
Walt Steinvorth, UDOT Planning
John Thomas, UDOT Planning
Travis Thowe, BNSF Railway
Chris Weesner, SG&W Railway
Connie Wilson, BNSF Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn

Daniel Kuhn welcomed everyone to the meeting and thanked them for their attendance. Those who were in attendance included Chris Bigoness, Travis Colledge, Brett Coulam, Ned Hacker, Val Halford, Dan Harbeke, Vern Keeslar, Nick Kenzcka, Daniel Kuhn, Mark Nelson, Susan Odom, Andrea Olson, and Chris Weesner.

2. Section 130 Funding Presentation – Eric Cheng

On behalf of Eric Cheng, Travis Colledge, UDOT's railroad crossing consultant of CDM Smith, gave a presentation on Section 130 funds. He discussed that Section 130 funds were for railroad crossing improvements for public railroad crossings. UDOT receives about \$1.6 million a year to improve crossings with active warning devices. Each railroad crossing improvement now averages between \$300,000 and \$400,000 per crossing. Travis discussed past projects where Section 130 funds were used to improve

the railroad crossing. He also listed a few projects that are in the process of being designed or completed using Section 130 funds.

3. Heber Valley Railroad Presentation – Mark Nelson, Heber Valley Railroad

Mark Nelson, Executive Director of the Heber Valley Railroad, gave two presentations. The first presentation was one that he gave the Utah Legislature requesting funding. The Heber Valley Railroad is actually an independent state agency titled the Heber Valley Historic Railroad Authority. Both steam engines owned by the Heber Valley are under repair and additional funds are needed to complete the refurbishing of the steam engines. The second presentation showed some of the recent marketing of the Heber Valley Railroad types of themed trains that they run. Mark explained that the ridership last year was 64,000 people with 42 percent of those riders were out-of-state. Mark said that the Heber Valley Railroad was going to market local riders with shorter and cheaper ticket rides.

4. Freight and Passenger Railroads Questionnaire Follow-up – Daniel Kuhn

Daniel reminded everyone that railroads that have submitted responses to the questionnaire included:

- Amtrak, BNSF Railway, Comstock Mountain Lion Railroad, Salt Lake, Garfield & Western Railway, Union Pacific Railroad, and the Utah Transit Authority FrontRunner.

Those who have yet to submit a response to the questionnaire include the following:

- Deseret Power Railroad, Kennecott Copper Railroad, Salt Lake City Southern Railroad, Savage, Bingham and Garfield Railroad, Utah Central Railway, and the Utah Railway.

5. Public Involvement Plan – Andrea Olson

Andrea Olson of InterPlan handed out a draft public involvement plan. She briefly discussed the requirements of the PRIIA FRA Guidance suggested outreach efforts. She also discussed the recommended outreach for the USRP. The railroad partners in attendance offered their support of the outreach and said they would assist where they could.

6. Proposed Next Meeting – Daniel Kuhn

Daniel stated that the next meeting date is Wednesday, January 29, 2014 from 10:00 a.m. to 11:30 a.m. at UDOT.

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Wednesday, January 29, 2014

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Clint Ashmead, Utah Railway/SLCSRR	Nick Kenzcka, UDOT Planning
Chris Bigoness, BNSF Railway	Alex Khalfin, Amtrak
Maurice Bowens, Utah Central Railway	Daniel Kuhn, UDOT Planning
Eric Cheng, UDOT Traffic & Safety	Kelly Lund, FHWA
Jason Clark, SB&G Railroad	Myron Lee, Dixie MPO
Brett Coulam, Utah Transit Authority	Bill Magazin, Amtrak
Rick Clasby, Utah Trucking Association	Aaron Moody, BNSF Railway
Chad Eccles, MAG	Mark Nelson, Heber Valley Railroad
Alex Engelke, CML Railroad	Susan Odom, BNSF Railway
Jeff Gilbert, Cache MPO	Andrea Olson, InterPlan (Consultant)
Ned Hacker, WFRC	Cory Pope, UDOT Program Development
Val Halford, WFRC	Paul Quintana, Utah Central Railway
Dan Harbeke, Union Pacific Railroad	Mark Sadler, Amtrak
Jeff Harris, UDOT Planning	Walt Steinvorth, UDOT Planning
Bryan Hendrickson, Kennecott Copper	Travis Thowe, BNSF Railway
Hal Johnson, Utah Transit Authority	Chris Weesner, SLG&W Railway
Vern Keeslar, InterPlan (consultant)	Connie Wilson, BNSF Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. Plan Update and Chapters – Vern Keeslar
3. Utah Crude Oil Transload Facilities – Daniel Kuhn
4. Public Involvement Plan Update – Andrea Olson
5. Proposed Next Meeting – Daniel Kuhn
 - a. Date: Wednesday, April 23, 2014
 - b. Time: 10:00 a.m. to 11:30 a.m.
 - c. Place: UDOT

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Wednesday, January 29, 2014

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Clint Ashmead, Utah Railway/SLCSRR
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Mark Sadler, Amtrak
Walt Steinvorth, UDOT Planning
Travis Thowe, BNSF Railway
Chris Weesner, SLG&W Railway
Connie Wilson, BNSF Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn

Daniel Kuhn welcomed everyone to the meeting and thanked them for their attendance. Those who were in attendance included Nathan Anderson, Eric Cheng, Brett Coulam, Jeff Gilbert, Ned Hacker, Val Halford, Dan Harbeke, Bryan Hendrickson, Vern Keeslar, Daniel Kuhn, Kelly Lund, Justin Morgran, Susan Odom, Andrea Olson, Walt Steinvorth, and Chris Weesner.

2. Plan Update and Chapters – Vern Keeslar

Vern Keeslar discussed an appropriate amount of time for the Working Group to review the first three chapters of the USRP. It was determined that a week per chapter would provide enough time for comments. Vern stated that he would send the first three chapters in PDF format by the end of the week. Comments are due back by Friday, February 21, 2014.

3. Utah Crude Oil Transload Facilities – Daniel Kuhn

Daniel Kuhn discussed that there are six crude oil transload facilities in Utah. He stated that he has been to each location and will include this information in the USRP. He stated that there are three along the Wasatch Front from Ogden to Midvale and three in Carbon County. Bryan Hendrickson expressed his concern about crude oil taking up needed switching capacity to service Kennecott Utah Copper rail shipments on a limited switching schedule on the Savage Bingham & Garfield Railroad. Daniel thanks him for the comment and responded that he should also express that concern to his rail service providers.

4. Public Involvement Plan Update – Andrea Olson

Andre Olson gave an update on the USRP outreach and public involvement. Daniel will be attending 12 public meetings with the Wasatch Front Regional Council (WFRC) at small group city meetings in January and February 2014. Daniel will hand out flyers about the USRP and where to provide input. Andrea is also proposing that Daniel attend each of the four metropolitan planning organizations (MPOs) technical advisory committee meetings. A schedule will be identified in the next couple of weeks.

5. USRP Presentation – Daniel Kuhn

Daniel gave a presentation on The Legacy of the Golden Spike; Railroad Service in Utah and the Utah State Rail Plan 2014. Originally prepared for the UDOT Annual Conference, this presentation looked at the continuing role of railroads in serving Utah's growing economy and how UDOT's Primary Freight Network highways work with the rail industry to support intermodal freight transportation. Bryan Hendrickson requested that the name of the Kennecott Utah Copper Railroad be corrected in the presentation.

6. Proposed Next Meeting – Daniel Kuhn

Daniel stated that the next meeting, and probably the last for the USRP, will be held at UDOT at 10:00 a.m. on Wednesday, April 23, 2014.

Utah State Rail Plan (USRP) Working Group Meeting Agenda

Date: Thursday, May 1, 2014

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Clint Ashmead, Utah Railway/SLCSRR
Chris Bigoness, BNSF Railway
Maurice Bowens, Utah Central Railway
Eric Cheng, UDOT Traffic & Safety
Jason Clark, SB&G Railroad
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Connie Wilson, BNSF Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn
2. Plan Update and Chapters – Vern Keeslar
3. Freight Shippers/Receivers Meetings – Daniel Kuhn
4. Uinta Basin Rail EIS Presentation – Asia Alvord, HDR Engineering
5. Public Involvement Update – Andrea Olson
6. Last Meeting – Daniel Kuhn
 - a. Date: To be determined
 - b. Time: To be determined
 - c. Place: To be determined

Utah State Rail Plan (USRP) Working Group Meeting Notes

Date: Thursday, May 1, 2014

Time: 10:00 a.m. to 11:30 a.m.

Place: Utah Department of Transportation (UDOT), located at 4501 South 2700 West, Salt Lake City, Utah. First Floor Administration Conference Room (East).

Invited Working Group

Clint Ashmead, Utah Railway/SLCSRR

Chris Bigoness, BNSF Railway

Maurice Bowens, Utah Central Railway

Eric Cheng, UDOT Traffic & Safety

Jason Clark, SB&G Railroad

Brett Coulam, Utah Transit Authority

Rick Clasby, Utah Trucking Association

Chad Eccles, MAG

Alex Engelke, CML Railroad

Jeff Gilbert, Cache MPO

Ned Hacker, WFRC

Val Halford, WFRC

Dan Harbeke, Union Pacific Railroad

Jeff Harris, UDOT Planning

Bryan Hendrickson, Kennecott Copper

Curt Hutchings, Dixie MPO

Hal Johnson, Utah Transit Authority

Vern Keeslar, InterPlan (consultant)

Alex Khalfin, Amtrak

Daniel Kuhn, UDOT Planning

Kelly Lund, FHWA

Myron Lee, Dixie MPO

Bill Magazin, Amtrak

Mark Nelson, Heber Valley Railroad

Susan Odom, BNSF Railway

Andrea Olson, InterPlan (Consultant)

Cory Pope, UDOT Program Development

Paul Quintana, Utah Central Railway

Mark Sadler, Amtrak

Walt Steinvorth, UDOT Planning

Travis Thowe, BNSF Railway

Chris Weesner, SLG&W Railway

Connie Wilson, BNSF Railway

Agenda

1. Welcome and Introductions – Daniel Kuhn

Daniel Kuhn welcomed everyone to the meeting. Those present included Asia Alvord, Brett Coulam, Jeff Gilbert (by phone), Ned Hacker, Val Halford, Vern Keeslar, Daniel Kuhn, Andrea Olson, and Brandon Weston

2. Plan Update and Chapters – Vern Keeslar

Vern Keeslar updated everyone about the status of the chapters. Chapter 4 will be emailed out next week and Chapters 5 and 6 to follow in two weeks.

3. Freight Shippers/Receivers Meetings – Daniel Kuhn

Daniel Kuhn named the freight companies that he has had one-on-one meetings about shipping by rail and truck. They include NUCOR Steel, The Scoular Company, INTSEL Steel, Cereal Food Processors, HollyFrontier Refinery, Chevron Refinery, Burton Lumber, Presto Plastics, and Comstock Inc.

4. Uinta Basin Rail EIS Presentation – Asia Alvord, HDR Engineering

Asia Alvord gave a presentation about the Uinta Basin Rail EIS. She discussed how HDR Engineering reviewed several alignment options for this proposed new railroad. Asia stated, “the purpose of the Uinta Basin Railroad (UBRR) project is to reduce shipping costs and expand market access for commodities transported to and from the Uinta Basin by constructing a freight rail line that connects the Uinta Basin to the national common-carrier freight railroad system with direct access to the two western United States Class 1 railroads (BNSF and UP).”

5. Public Involvement Update – Andrea Olson

Andrea Olson gave an update regarding public involvement. She stated that the Draft Utah State Rail Plan will be posted on UDOT’s website during the month of July for comments. She will also email a link to all Working Group members so that they may also spread the word about the Draft Utah State Rail Plan.

6. Last Meeting – Daniel Kuhn

Daniel Kuhn stated that he may hold one more state rail plan meeting in autumn. More information will follow if there is a need for one more meeting.

Additional Utah Railroad Resources

The following is a list of books and websites that can provide additional information about railroads in Utah.

Books

Hemphill, Mark W. Union Pacific Salt Lake Route. The Boston Mills Press, ISBN 1-55046-138-9, 1995.

Kooistra, Blair, Jim Belmont, and Dave Gayer. Crossroads of the West. Pentrex Media Group, ISBN 1-56342-008-2, 1998.

Schmollinger, Steve. Desert Railroading. Heimburger House Publishing Company, ISBN 0-911581-50-2, 1999.

Signor, John R. DONNER PASS Southern Pacific's Sierra Crossing. Golden West Books, ISBN 0-87095-094-0, 1985.

Signor, John R. Southern Pacific's Salt Lake Division. Signature Press, ISBN 978-1-930013-21-6, 2007.

Signor, John R. The Los Angeles & Salt Lake Railroad. Golden West Books, ISBN 0-87095-101-7, 1988.

Websites

www.amtrak.com

www.bnsf.com

www.cmlmetals.com

www.deseretpower.com

www.gwrr.com

www.hebervalleyrr.org

www.kennecott.com

www.patroitrail.com

www.rideuta.com

www.savageservices.com

www.up.com

www.utahrails.net