

January 28, 2021

Richard Corey Executive Officer

Steve Cliff
Deputy Executive Officer

Sydney Vergis Mobile Source Control Division Chief

Air Resources Board 1001 I Street Sacramento, CA 95812

RE: CARB 2019 Presentation "Concepts to Reduce Emissions from Locomotives and Railyards" and Subsequent Workshops on Proposed Locomotive Regulations Held October 29-30, 2020

Dear Richard, Steve, and Sydney,

The California Short Line Railroad Association (CSLRA) appreciates the opportunity to interact with Air Resources Board (ARB) staff (Freight Team) concerning proposed concepts to reduce statewide in-use railroad locomotive emissions. There are aspects of the short line rail freight industry that are unique, and this is an important beginning in a dialog between our organizations on how we can go forward together in a mutually successful manner.

CSLRA represents 25 class III "short line" railroads in California who operate approximately 23% of the state's rail network mileage. These short lines provide safe and efficient rail transportation for nearly every sector of the economy, playing a fundamental role in California's economic growth in both rural and urban areas, along with extensive switching service to numerous California ports. Short lines are typically small enterprises, often owned and operated by a single individual and typically handle freight car shipments given or received with a connecting large Class I railroad, providing the "first or last mile" of much of the state's rail transportation. Traffic levels are lower than California's Class I railroad main lines, because the short lines were mostly created when the large railroad's branch lines became unprofitable due to loss of rail traffic.

Number of short lines in CA	25
Total mileage operated	1,221 miles
Non-intermodal Railcars moved	260,500 annually
Truckload Equivalents	781,500 annually
Pavement damage savings	\$58M to \$75M annually

Although short lines are small businesses, they often operate trains of substantial length and weight; 40 to 100 cars and 5,000 - 10,000 trailing tons are not uncommon. Their operations place significant performance demands on their locomotives.

It is expensive to operate a locomotive, so short lines are accordingly prudent in their use. Federal regulations often require locomotives to be used in ways that are inefficient. To greatly reduce the amount of time locomotives are required to idle while pumping air to keep the railcar air brakes "on air" as required by federal regulations, the Association of American Railroads (AAR) and American Short Line Railroad Association (ASLRRA) petitioned the Federal Railroad Administration (FRA) to allow trains to be "off air" for longer time periods. FRA published a final rule on December 12, 2020, which allows for trains to be kept "off air" for up to 24 hours, instead of the previous limit of 4 hours. This recent regulatory change allows short lines to shut off diesel locomotives, instead of having to idle diesel engines simply to keep trains "charged" with air as required before the regulation was changed. Further environmental improvements are in the making, with a Notice of Proposed Rulemaking published by FRA on January 15, 2021, that allows railroads to handle and move railcars in a more efficient manner. Locomotive emissions will be further reduced with more efficient operations.

Though a critical part of the state's transportation infrastructure, short lines are "facing pressure for investment to remain competitive with Class I railroads, as well as other modes of freight transportation" (2018 California State Rail Plan, page 90). The small California short lines must continuously focus reinvestment back into their track, bridges, and other infrastructure and continue to improve service to their freight customers, ensuring that these local businesses are able to reliably connect to the national freight rail network.

As new demands from the Air Resources Board and the Air Districts mount on the rail industry, the short lines could undoubtedly be the most adversely impacted. For example, most short lines are unable to afford new locomotives given the substantial capital investment required. Where state and federal incentives allow for and incent such purchases, many short lines don't consume enough fuel annually within their locomotive fleets to meet the standards for grant funding. Taxing these small operations for their older locomotive fleets to create the funding to replaces these locomotives may result in the least profitable railroads never having the financial ability to adequately maintain their assets or serve their customers, inevitably resulting in bankruptcy for these small businesses.

California Short lines move approximately 260,500 non-intermodal carloads per year over the rail network, representing much of the first and last mile of the commodity's transportation journey. Should fees from CARB prohibit the full operation of a short line, or a significant

<sup>&</sup>lt;sup>1</sup> federalregister.gov/d/2020-25817, and on govinfo.gov

<sup>&</sup>lt;sup>2</sup> Federal Register /Vol. 86, No. 10 / Friday, January 15, 2021 / Proposed Rules

decreased operation based on compliant locomotive availability, much of the volume currently moved on rail could be diverted to truck traffic, increasing pavement damage, highway accidents, congestion, and air pollution. A recent Caltrans report on Longer Combination Vehicles<sup>3</sup> called out some of the better-known negatives that result from highway freight transportation, citing that "...trucks deteriorate the pavement structure at an accelerated rate. A study at University of Texas found that one big rig pass causes the damage equivalent to 2,000 to 3,000 cars.". Furthermore, freight shipped on public highways is involved in a much higher rate of accidents, injuries, and fatalities than freight shipped by rail on private right of ways. As an example, in 2018, 4 large trucks were involved in 352 fatalities in California, or about 1 in 10 highway fatalities in the state<sup>5</sup>.

There are several specific areas of concern to CSLRA and its members would appreciate further consideration and discussions with ARB staff as they work through new emission regulations involving California railroads:

- The cost formulas associated with the Spending Account proposal need to be clarified and confirmed to allow a thorough understanding of how this proposal may impact California short line railroads.
- Particularly with respect to the Spending Account proposal, but also regarding other significant capital outlay proposals such as locomotive maintenance facility emissions capture equipment, CSLRA members are very concerned about both the magnitude of the cost relative to short line revenues and the absence of cost-effectiveness criteria. The Carl Moyer Program, which has aided many new locomotive purchases by CSLRA members, acknowledges that emissions reductions costing more than a threshold amount (dollars spent per ton of emissions avoided) are not wise investments of California taxpayer dollars, and should not be funded. The Spending Account proposal as it currently stands relies entirely on private dollars. There needs to be a recognition that expenditures of private dollars should also meet cost-effectiveness criteria and consider the economies of scale. Spending a large amount of public or private money to get lowvolume emissions reduction is not a wise investment, compared to spending the same money on something with more "bang for the buck." To illustrate this point, the economics of capturing locomotive emissions at a large, modern locomotive repair shop on a Class I railroad that services many hundreds of locomotives a year would be radically different than a similar effort on a California short line railroad that may own only a few locomotives and has nothing more than a shed-type structure for servicing them. Locomotive maintenance facilities below a certain capacity should not be required to have emissions capture equipment. It would not be a cost-effective investment.
- Additionally, as referenced above, short line railroads in California work continuously to improve their track structures to be more "seamless" with the large Class I railroads and to be able to handle the current industry standard maximum weight per car, 286,000

<sup>&</sup>lt;sup>3</sup> https://dot.ca.gov/programs/traffic-operations/legal-truck-access/exemption-lcv

<sup>&</sup>lt;sup>4</sup> NHTSA's most recent truck accident fatality report

https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812891

<sup>&</sup>lt;sup>5</sup> NHTSA state fatality chart https://crashstats.nhtsa.dot.gov/Api/Public/ViewPublication/812826

pounds. This investment is important due to the historic lack of private investment in branch line infrastructure (before being sold to a short line railroad) as larger railroads decided to sell, or perhaps abandon, lines that were less than profitable Any regulatory demands to divert investments away from the railroad track structure improvements could mean that, in the future, short lines are unable to compete to secure future rail traffic, thus forcing a diversion of this freight to truck transportation on public infrastructure.

- There also needs to be recognition that certain small, low-volume operations, which include tourist, museum and non-railroad industrial plant switching operations, simply can't afford large capital improvement outlays. Limited operations and small profit margins leave scarce money available for major capital outlays that would be required by potential new emission regulations. The proposed programs should have exemptions for these small, low volume operations. With respect to museum and tourist railroads, customers go to these specialized passenger operators because they want to see operating "vintage" equipment, including locomotives. These situations should be treated in a manner similar to how California handles classic/historic motor vehicles.
- CSLRA is also concerned that ARB and the Air Districts are simultaneously pursuing capital-intensive emissions reduction proposals, as outlined in the ARB presentation "Concepts to Reduce Emissions from Locomotives and Railyards" without coordination of timing (implementation schedule) and total cost. For example, having to absorb a yearly outlay for new locomotives at the same time as the cost of locomotive maintenance emissions capture equipment could easily be impossible for a small business.

If short lines are forced out of business, some of their customers will go out of business as well, due to lost access to economical rail service that is essential to their business model. These closures will increase unemployment (typically with a loss of higher-paying blue collar jobs with benefits) and decrease state tax revenues. In addition, the rail customers that survive the short line closure will be forced to shift all their traffic to trucks, increasing state/local roadway congestion and wear, and increasing the pollution profile of the associated goods movements and endangering public safety. Even if some of the traffic shifts onto battery-electric or hybrid trucks, problems of roadway congestion and roadway damage (battery trucks are heavier than standard trucks) will remain. Pushing railroads out of business will cause major economic harm to California, stress our roadways and may very well result in comparable or higher air pollution.

In closing, we would like to note that our participation in this discussion with CARB should not be construed as CSLRA or its members' agreement that the proposed regulations are permissible under federal and state law.

Sincerely,

Donald G. Norton Executive Director

#### Attachments:

1. Extract from 2018 California State Rail Plan

2. AAR California Freight Railroad Fact Sheet

Cc: ARB Freight Team

## 2.1.3 California's Freight Railroad System

California's freight railroad system links industries and consumers throughout the state with North American and overseas markets. The 5,295-mile freight rail system is central to the handling of the state's international trade, and plays a central role in maintaining the competitiveness of some of its principal freight-oriented industries. In 2013, the base year for the Rail Plan, California's rail network handled 159.6 million tons of commodities, of which 60.9 million tons originated, and 103.7 million tons terminated, in California.<sup>[119]</sup> According to the Association of American Railroads (AAR), California ranked eighth among states in terms of rail tons originated in 2012.<sup>[120]</sup>

Railroads are commonly characterized in the context of revenues, with Class I being the largest, and Class III being the smallest. BNSF and UPRR, two Class I railroads, each with annual revenues of more than \$475 million (2013), provide service throughout the state. Class II carriers have revenues between \$38.05 million and \$475.75 million (2013); there are no Class II railroads in California. Finally, with revenues of less than \$38.05 million (2013), Class III carriers, commonly referred to as "short lines," provide service to various communities across the state. In 2016, a total of 27 short lines, including seven terminal and switching railroads, operated in the state. All freight railroads serving the state, along with their parent company (if they have one) and route mileage operated (miles owned plus trackage rights), are listed in Table 2.8.

California's Class I and publicly owned rail network is displayed in Exhibit 2.4, and short lines operating in the state are shown in Exhibit 2.5. The vast majority of the route-miles in this network (3,871 miles) is owned by the two Class I railroads, BNSF and UPRR, followed by short lines (1,296 route-miles). Public ownership accounts for almost 700 miles, most of which are concentrated around the state's major metropolitan areas in Southern California and the Bay Area. Because the publicly owned lines are Class I spin-offs of the former Atchison Topeka and Santa Fe Railway and the former Southern Pacific Railroad, successors BNSF and UPRR continue to hold trackage rights over most of the existing mileage. In some instances, these rights have been ceded or transferred to short-line operators.

#### **Union Pacific Railroad**

UPRR operates 32,000 route-miles of track across 23 states, and is California's largest railroad in terms of volume, employees, and mileage. In 2015, with a workforce of about 5,000 employees, UPRR's California operations handled more than 3 million carloads on a network of almost 3,300 miles.[121]





<sup>119</sup> AAR, AAR Fact Sheet, California (2013).

<sup>120</sup> AAR, AAR State Rankings 2012.



Table 2.8: California's Freight Railroads [122]

Name	Standard Carrier Alpha Code	Parent Company	Total Miles Operated <sup>b</sup>
BNSF Railway	BNSF	Berkshire Hathaway	2,114
UPRR	UPRR	Independent	3,292
Class III Railroads (Short Lines)			
– Local Railroads	Physical Republic	Control of the Assessment of	
Arizona & California Railroad Company	ARZC	Genesee & Wyoming Inc.	190 (84 in CA)
California Northern Railroad	CFNR	Genesee & Wyoming Inc.	210
Central Oregon & Pacific Railroad	CORP	Genesee & Wyoming Inc.	305 (56 in CA)
Fillmore and Western <sup>a</sup>	FWRY	Independent	28
ake County Railway	LCR/LCY	Frontier Rail	54
Napa Valley Wine Train <sup>a</sup>	NVRR	Independent	18
Northwestern Pacific Co.	NWP	Independent	63
Pacific Sun Railroad, LLC	PSRR	Watco	62
Sacramento Southern Railroad	SSR	State of California	3
Sacramento Valley Railroad	SAV	Patriot Rail	7
an Diego & Imperial Valley Railroad	SDIY	Genesee & Wyoming Inc.	1
an Joaquin Valley Railroad Company	SJVR	Genesee & Wyoming Inc.	297
an Francisco Bay Railroad	SFBR	Independent	7
anta Cruz, Big Trees & Pacific Railway	SCBG	Roaring Camp, Inc.	9
anta Cruz and Aonterey Bay Railway Company	SCMB	Iowa Pacific Holdings	31
anta Maria Valley Railroad	SMVRR	Independent	14
ierra Northern Railway	SERA	Independent	68
tockton Terminal and Eastern Railroad	STE	OmniTrax	25
rona Railway Company	TRC	Searles Valley Minerals/Nirma	31
entura County Railroad Company	VCRR	Genesee & Wyoming Inc.	9
Vest Isle Line, Inc.	WFS	Western Farm Service	5
<b>Switching and Terminal Railroads</b>		Trestem rain service	3
entral California Traction	CCT	BNSF/UPRR	0.6
os Angeles Junction Railway Company	LAJ	BNSF	96
lodesto & Empire Traction Company	MET	Independent	64
akland Terminal Railway	OTR	BNSF/UPRR	49
acific Harbor Line, Inc.	PHL		10
uincy Railroad		Anacostia & Pacific	59
ichmond Pacific Railroad Corporation	QRR	Independent	3
acine namoda corporation	RPRC	Independent	6

<sup>&</sup>lt;sup>a</sup> Primarily passenger operator, but does handle some freight. <sup>b</sup> Includes trackage rights.

Note: The table does not include freight railroads that operate solely for the purpose of its owner. These include CEMEX's South Western Portland Cement Railroad, U.S. Gypsum's operation near Plaster City, and several railroads operating on military facilities.

<sup>122</sup> Sources: American Short Line and Regional Railroad Association, AAR, carrier Interviews 2016.







Exhibit 2.5: Class I and Public Agency Owned Rail System





Exhibit 2.6: Short Line and Switching and Terminal Freight Railroads [123]

Note: Exhibit shows short lines mentioned in Table 2.8.

<sup>123</sup> Rail lines with less than 10 miles of track are not shown on the map.





Today, UPRR operates an expansive rail line network that serves California's diverse regions, including the agriculturally rich San Joaquin Valley, the Port of Oakland, the San Francisco Bay Area, and the Los Angeles metropolitan area. For its carload services, UPRR operates two system classification yards at West Colton in southern California and Roseville in northern California; and three regional yards in Lathrop (San Joaquin County), Commerce (Los Angeles County), and Yermo (San Bernardino County). Intermodal services are available at six dedicated terminals, in Oakland, Stockton, and the Los Angeles and Long Beach region. UPRR also has shared use of the on-dock rail terminals at POLA and POLB, which are discussed in more detail in Section 2.1.5. In California, UPRR holds trackage rights over BNSF in various locations, most notably between San Bernardino and Yermo over Cajon Pass.

**BNSF Railway Company** 



BNSF is North America's largest intermodal carrier, handling more

than 4.9 million trailers and containers in 2015 in the United States, compared to UPRR's 3.9 million. [124][125] BNSF operates more than 32,000 route-miles of track throughout the United States across 28 states. In addition to its own routes, BNSF holds trackage rights over the UPRR between Salt Lake City and the San Francisco Bay Area, Tehachapi Pass between Bakersfield and Mojave, and in the Central Valley.

BNSF operates more than 2,114 route-miles in California, with a workforce of almost 3,500 employees. These operations occur on 1,149 miles owned by BNSF and 965 miles of line on which BNSF holds trackage rights. BNSF moves about 3.9 million carloads per year in California. Major BNSF freight hubs include the major system yard at Barstow, five dedicated intermodal terminals, and shared on-dock rail facilities at POLA and POLB. There are a total of 11 carload yards located in the cities of Bakersfield, Barstow, Commerce, Needles, Riverbank, San

Bernardino, San Diego, Stockton, and Wilmington. The five intermodal facilities are in Fresno, Richmond, San Bernardino, Stockton, and Los Angeles. [127]

California serves as the western anchor of BNSF's Transcontinental Corridor route, which links Southern and Northern California with Chicago. On this corridor, consumer products—including everything from food and automobile products to agricultural and industrial products—represent the majority of BNSF's transported commodities.[128]

### Class III Short Lines (Local, Terminal, and Switching Railroads)

California's 20 local railroads and seven switching and terminal railroads are a diverse group, varying widely in terms of mileage, ownership, traffic volumes, and markets served. Although some, such as the Santa Maria Valley Railroad, the Trona Railway, and the Modesto & Empire Traction Company, have been longstanding fixtures in California's rail map, many more came into existence during the industry restructuring of the 1980s and 1990s, when the Class I railroads streamlined their networks by selling off or abandoning light-density lines. Since then, the short-line sector has consolidated, with the majority of carriers coming under the control of a handful of holding companies. In California, as in the rest of the United States, the largest short-line operator is Genesee & Wyoming, operating six of the 20 short lines; and 657 miles, or 51 percent of the total short-line mileage. Other holding companies, such as Watco, Omnitrax, and Patriot Rail, are also present in California, with each operating only one railroad. Also, BNSF and UPRR continue to own three switching railroads (two of them jointly).

With the exception of Pacific Harbor Line, which handles container traffic at the San Pedro Bay ports, the State's short lines focus on carload traffic. By providing "last mile" service to many smaller shippers in the state's rural communities, they ensure continued access to rail service and facilitate economic development. Tourist passenger service is also part of the business mix for several short lines; for a few, such as the Napa Valley Railroad and the Fillmore and Western, it is their primary business.

<sup>126</sup> BNSF, California 2015 Fact Sheet (2015).



<sup>124</sup> UPRR, Union Pacific Railroad: Weekly Carloads and Intermodal Traffic Report, Week 52 (Week of December 27, 2015 through January 2, 2016; Week of December 28, 2014 through January 3, 2015).

<sup>125</sup> BNSF Railway, BNSF Railway: Weekly Intermodal and Carload Units Report Week 52 (Week ending January 2, 2016; Week ending January 3, 2015).

<sup>127</sup> ibid

<sup>128</sup> BNSF, State Fact Sheet for the State of California (2010).

#### **Short Line Trends**

The vast majority (89 percent) of rail traffic tonnage in California is handled entirely by the Class I railroads. In part, the high volume of intermodal freight drives the high Class I share, traffic that short lines commonly do not handle. The situation is different for carload traffic, where almost one in five (19 percent) originated carloads begin their trip on a short line. Eight percent of carloads end their trip on a California short line. For the more rural regions of the state, short lines take on even greater importance as a means to accessing rail service. As shown in Table 2.9, upwards of 41 percent of all carload traffic originating in the Central Valley is on short lines. In Northern California, more than one out of four carloads begin or end their trip on a short line.

Short lines are responsible for transporting most of the alcoholic beverages (93 percent) and fuel oils (78 percent) originating in California. They are also responsible for transporting more than half of the transportation equipment (52 percent), and almost a third of fertilizers (28 percent) terminating in California.

Because carload traffic is projected to increase by more than 50 percent between 2013 and 2040, (Table 2.9) short lines will need to grow to handle the increasing carload traffic.

#### **Short Line Performance**

It is apparent that some short lines operating in California are not meeting critical volume thresholds, and services and investment in track and equipment are declining. Concurrently, short line railroads are facing pressure for investment to remain competitive with the Class I railroads, as well as other modes of freight transportation. Remaining competitive includes short lines being able to accommodate heavier-weight railcars (i.e., loaded car weights of 286,000 pounds, or "286K"), and providing competitive pricing and service offerings in conjunction with their Class I connections. Although the Class I rail network is generally in excellent physical condition, short lines tend to have less wellmaintained track and other infrastructure elements. Although most of California's short lines can handle 286K railcars, light track and outdated bridges on a number of routes greatly impede efficiency and produce risks.

Many of the short lines contacted during the development of the Rail Plan expressed concerns regarding new environmental, safety, and insurance-related regulations (including the recently imposed hazmat fees, and two-person crew requirements) that they are required to follow. Although the desired intent behind these requirements is positive, many of the short lines are cash-strapped and find the additional costs imposed by these regulations difficult to bear.

Table 2.9: Short Line Carload Service Traffic Originating (left) and Terminating (right) in California [129]

Originating		T :	
		Terminating	
Short Line Traffic % (units)	Short Line Traffic % (tons)	Short Line Traffic % (units)	Short Line Traffic % (tons)
28%	23%	33%	23%
6%	8%	2%	3%
9%	9%	2%	3%
41%	39%	16%	15%
18%	19%	7%	8%
	Short Line Traffic % (units) 28% 6% 9% 41%	Traffic % (units)         Traffic % (tons)           28%         23%           6%         8%           9%         9%           41%         39%	Short Line Traffic % (units)         Short Line Traffic % (tons)         Short Line Traffic % (units)           28%         23%         33%           6%         8%         2%           9%         9%         2%           41%         39%         16%

Surface Transportation Board, 2013 STB Confidential Carload Waybill Sample, FAF 3, Ports of Long Beach and Los Angeles. STB 2015 Waybill Sample became available after Rail Plan analysis was complete.

# 5.2.3 Economic Development and Short Lines



California's short lines handle approximately one-tenth of the state's carload freight

tonnage, and are a critical link between many of the state's freight-intensive industries, ports, and principal trade corridors. Therefore, it is important to maintain a modern and efficient short-line rail system in California that operates seamlessly with its Class I connections.

The principal challenge that must be addressed is that some of the state's short-line trackage cannot handle freight cars weighing 286,000 pounds, a standard that the Class I railroads adopted in 1994. Where a line is not 286K-capable, the common practice is to either load a railcar to less than its maximum capacity, or to transfer the load to trucks for transport to a location where the railroad can handle the heavier load. Both practices unnecessarily increase costs through the inefficient use of assets, the additional steps required, and the increased travel time.

Addressing the 286K issue on a line typically requires undertaking one or more improvements, including replacing rail, ensuring that there are an adequate number of performing ties, and strengthening or replacing bridges. Concurrently, except for short lengths of line, it is greatly beneficial to bring track conditions up to FRA Track Class II, which allows speeds of up to 25 mph for freight trains. Higher speeds greatly improve the operational efficiency of railroads, reduce their costs, and have the potential to improve the marketability of rail service, particularly for potential new rail shippers. Industrial spurs provide direct access to the rail network and reduce truck movement, and often are a necessity for some industries that wish to use rail.

Some examples of short-line-focused improvements and how they would contribute to California's overall rail vision, including potential co-benefits for both freight and passenger rail, are summarized in Table 5.4.

Table 5.4: Project Examples of Economic Development and Short Lines with Co-Benefits

Investment	Freight	Passenger
Economic Development and Short Lines	rreight	rassenger
Freight spurs/sidings SMART/Northwestern Pacific Railroad – increase rail opportunities for North Bay shippers	1	1
Evaluate rail-served industrial development infrastructure for Northern Contra Costa Waterfront	1	
Track and yard expansion	/	
Reload yard and multiple rail upgrades for CTC	1	
Sidings, track upgrades, industrial spurs, and loaders for rail-served customers	1	
State of good repair and infrastructure upgrades to maintain and expand service	/	/
Track and yard expansion (Santa Maria Valley Railroad)	1	/
Grade separation at SCRRA tracks on San Canyon Road	1	





# Freight Railroads in California

Rail	Fast	<b>Facts</b>	For	2017

**Operations** Number of freight railroads 25 Freight railroad mileage 4.828 **Employment** Number of freight rail employees 8,153 and Earnings Average wages & benefits per freight rail employee \$123,400 Railroad Number of railroad retirement beneficiaries 25.593 Retirement Railroad retirement benefits paid

Railroad retirement benefits paid \$572 million

Economic Nationwide, in 2017, major U.S. railroads supported approximately 1.1 million jobs

Impact (about eight jobs for every railroad job), nearly \$219.5 billion in annual economic activity,

\$71 billion in wages and almost \$26 billion in tax revenues.

\$7 1 billion in wages and almost \$26 billion in tax revenues.

Fuel In 2017, America's railroads moved a ton of freight an average of 479 miles on one gallon of fuel. That's like going from Los Angeles to Tucson, AZ. On average, railroads are four times more fuel efficient than trucks. Moving freight by rail instead of truck

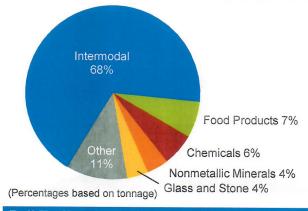
reduces greenhouse gas emissions by on average 75 percent.

Cutting Highway Gridlock One train can carry as much freight as several hundred trucks. It would have taken approximately 9.0 million additional trucks to handle the 162.0 million tons of freight that

originated in, terminated in, or moved through California by rail in 2017.

#### Rail Traffic Originated in 2017

Total Tons: 60.8 million Total Carloads: 3,517,800

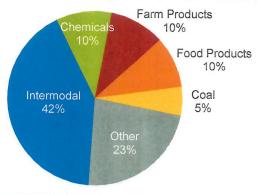


Commodity	Tons	Carloads
Intermodal	41,286,000	3,242,200
Food Products	4,163,000	53,000
Chemicals	3,651,000	37,300
Nonmetallic Minerals	2,428,000	40,600
Glass and Stone	2,386,000	21,900
Other	6,880,000	122,700

Source: AAR Analysis of STB Waybills

#### Rail Traffic Terminated in 2017

Total Tons: 104.2 million Total Carloads: 3,630,000



Commodity	Tons	Carloads
Intermodal	43,431,000	2,863,500
Chemicals	10,662,000	112,000
Farm Products	10,562,000	103,300
Food Products	10,056,000	106,400
Coal	5,540,000	47,800
Other	23,928,000	397,000

Source: AAR Analysis of STB Waybills

(Percentages based on tonnage)



# Freight Railroads in California

Class   Dailysed	Miles Operated In California in 2017
Class I Railroads	
BNSF Railway Company	2,169
Union Pacific Railroad Co.	3,291
Official acine Rambad Co.	AND DESCRIPTION OF THE PERSON NAMED IN COLUMN 2 IS NOT THE PERSON
	5,460
Regional Railroads	
(none)	
(110110)	
Local Railroads	
Arizona & California Railroad Co.	91
Central Oregon & Pacific Railroad	65
	65
Goose Lake Railway, LLC	38

California		Miles O	perated
2017 Totals	Number	Excluding	Including
	of Freight	Trackage	Trackage
	Railroads	Rights	Rights
Class I	2	3,663	5,460
Regional	0	0	0
Local	15	862	1,062
Switching & Terminal	8	303	381
Total	25	4,828	6,903

# Miles Operated In California in 2017

	Californ	nia in 2017
	Local Railroads, cont.	
	Northwestern Pacific Railroad	62
) \ '	Pacific Sun Railroad, LLC	67
UP) BNSF	Sacramento Valley Railroad	9
	San Diego & Imperial Valley Railroad	43
5 1	San Joaquin Valley Railroad Co.	492
A Company	Santa Cruz and Monterey Bay Railway Co.	32
UP	Santa Maria Valley Railroad	14
UP	Sierra Northern Railway	75
	Stockton Terminal & Eastern Railroad	25
Sacramento	Trona Railway Co.	31
Oakland	Ventura County Railroad Company	13
San Francisco	West Isle Line, Inc.	5
San Jose BNSF		1,062
UP		W \$1000 SWEET CO.
Tresito	Switching & Terminal Railroads	
UP	California Northern Railroad	283
1 1	Modesto & Empire Traction Co.	5
Bakersfield	Napa Valley Railroad Co.	21
	Desifie Herbert in a luc	

Pacific Harbor Line, Inc.

Richmond Pacific Railroad Corp.

San Francisco Bay Railroad

West Oakland Pacific Railroad

Quincy Railroad



Los Angeles

Long Beach

Map is based on the 2018 National Transportation Atlas Database published by the U.S. DOT, Bureau of Transportation Statistics.

San Bernardino

Class I Railroad: A railroad with 2017 operating revenues of at least \$447.6 million. Regional Railroad: A non-Class I line-haul railroad that has annual revenues of at least \$40 million, or that operates at least 350 miles of road and revenues of at least \$20 million. Local Railroad: A railroad which is neither a Class I nor a Regional Railroad, and which is engaged primarily in line-haul service. Switching & Terminal Railroad: A non-Class I railroad engaged primarily in switching and/or terminal services for other railroads.

51

3

11

5

2

381