Appendix B. Freight System Policy Framework

This section provides an overview of policies that influence federal and state freight transportation decisions. Decisions regarding how and where to move freight (which transportation mode and gateway to utilize) is most often determined by the total cost. The private sector of the freight industry understands and plans for disruptions, both short and long-term, and the role that freight delays play in customer retention. While policies that increase the cost of doing business, or pose threats to reliability, play major roles in where and how the private sector of the freight industry invests and operates, it is important that economic aspects of freight do not contradict other policies such as environmental policies and public health policies.

Federal regulations significantly influence the cost of goods movement. Rules on truck driver hours of service (HOS), the requirement of using electronic logging devices (ELD) to monitor drivers' HOS, and Corporate Average Fuel Economy (CAFÉ) standards for heavy duty vehicles are examples. At the State level, California Labor Code rest and meal period requirements often misalign with federal HOS rules and result in more time away from home for truck drivers. Environmental laws, such as SB 375 and SB 100, while vital to protecting the state's environment, can potentially add costs to industry in terms of equipment replacement and uncertainty. The California Environmental Quality Act[1] can potentially add costs and time for expanding existing or building new logistics facilities in California. Regional and local policies can also influence the cost of shipping, such as the San Pedro Bay Ports[2] and Port of Oakland's Clean Truck Programs and PierPass[3], and South Coast Air Quality Management District's proposed logistics industry indirect source rules[4].

This section covers the latest regulations, statutes, and policies at all levels of government with a focus on what each one means for California. This section also highlights prior regional studies that influence freight planning in the State. The federal perspective summarizes California's role in moving the nation's goods, coordinating with neighboring states on major truck, rail, and pipeline corridors, and ensuring compliance with requirements for obtaining federal funding. The state perspective focuses on identifying freight-related or impactful policies and regulations established by all State agencies and areas of conflict. The discussion of regional and local context identifies freight-related policies, regulations, and planning efforts.

U.S. Department of Transportation (DOT)

Freight policy and regulation is primarily a function of the U.S. DOT. Within DOT, the FHWA provides much of the federal funding for infrastructure construction, operations, and maintenance for truck cargo. While FHWA focuses on building and maintaining the National Highway System (NHS) which is a public asset, the Federal Railroad Administration (FRA), Federal Aviation Administration (FAA), Maritime Administration (MARAD), and Pipeline and Hazardous Materials Safety Administration (PHMSA) each focus primarily on safety and security

associated with moving goods on privately-owned infrastructure. FRA's funding role is limited to projects that enhance safety, such as grade-separations of railroad/roadway at-grade crossings and positive train control (PTC). Similarly, FAA focuses on safe operations of air traffic, while MARAD focuses on security of maritime operations in our nation's ports and inland waterways.

Both the National Highway Traffic Safety Administration (NHTSA) and the Federal Motor Carrier Safety Administration (FMCSA) focus on equipment manufacturing and vehicle operations – which also play significant roles in the transportation of goods. The NHTSA primarily focuses on the total population of drivers and vehicles, while the FMCSA focuses on commercial vehicles. Funding for U.S. DOT agencies occur through multi-year bills passed by Congress and signed into law by the President. Each agency receives and allocates funding approved through these transportation bills to carry out their duties. The most recent transportation bills are described later in this section.

U.S. Department of Energy (DOE)

The U.S. DOE plays a role in freight as it relates to both transportation and site selection decisions for logistics facilities. In recent years, the Office of Energy Efficiency and Renewable Energy has become a major player in the strengthening of federal, state, and regional and local air quality rules and regulations, with an increasing focus on clean energy options. The U.S. DOE research, through its National Laboratories, assists original equipment manufacturers (OEM) with the development of cleaner vehicles, including heavy duty trucks. The U.S. DOE also supports the development of technologies to improve how electricity is created, stored, and used, in addition to development of disruptive technologies, including robotics, additive manufacturing, and artificial intelligence. California is fortunate to have four of the Nation's 17 laboratories. Federal funding bills allocate funding to U.S. DOE for investments in Research and Development, as well as aiding private industry with the purchase of cleaner equipment pursuant to air quality goals.

U.S. Department of Commerce (DOC)

The U.S. DOC promotes private investments in economic development through its Economic Development Administration (EDA). In 2018, the EDA programs focused on Regional Innovation Strategies (RIS) and University Center Economic Development. Whereas RIS provides funding for high-technology and innovation start- up companies to further research and development, the University Center's program focuses on training/retraining the workforce of tomorrow. The EDA grants have funded a significant amount of disaster recovery and business resiliency efforts over the past decade, including efforts from the aftermath of hurricanes Harvey and Irma.

U.S. Department of Labor (DOL)

The U.S. DOL provides information about jobs and labor, and it serves to regulate both employers and workers. The Bureau of Labor Statistics (BLS) provides information about where firms are located and how many workers they employ. Other U.S. DOL agencies are responsible for enforcing labor laws, such as labor hours and safety rules for warehouse, dock, and aviation workers. Truck driver hours of service (HOS) regulations are controlled by the FMCSA, a U.S. DOT agency; however, truck driver safety while picking up or dropping off cargo at a facility is regulated by DOL's Occupational Safety and Health Administration (OSHA). The U.S. DOL funds safety programs that address workplace hazards.

U.S. Environmental Protection Agency (EPA)

In recent decades, the U.S. DOT, the U.S. EPA, and the U.S. DOE have worked together to encourage the transition of equipment, both on-road and off-road, to cleaner, more fuel-efficient technologies. The U.S. EPA has worked closely with the logistics industry to encourage cleaner technologies through programs such as SmartWay[5]. SmartWay rewards and recognizes shippers that meet clean transport goals. Major participants include Target, Home Depot, Lowe's, Kroger, FedEx, and UPS. The overwhelming success of the program derives from both the recognition and funding that helps companies purchase cleaner, more expensive equipment.

Federal Deregulation (Trucking, Railroad, and Air)

Prior to the late 1970s, the federal government heavily regulated several aspects of the freight industry (trucking, rail, and air cargo), including rates charged and wages paid. By 1982, the entire transportation industry was deregulated, and by 1995, Congress enacted the Interstate Commerce Commission (ICC) Termination Act, which eliminated the ICC and established the Surface Transportation Board (STB). The railroads have been a focus of STB efforts, in that rail operations have no effective substitutes and needed to be regulated to avoid monopoly conditions. The STB replaced the ICC to regulate the movements of bulk commodities on railways, interstate waterways, international ports and waterways, and non-energy products moving by pipeline. The STB is charged with the responsibility of balancing the needs of shippers for fair and reasonable rates and service, with the railroads' need to return adequate revenues. This is important for understanding private rail freight financing and funding, and a public agency's ability to support and fund private rail improvements[6].

National Strategic Freight Plan (Draft, 2016)

A draft version of the National Freight Strategic Plan was released for public comment in early 2016, and the comment period closed on April 25, 2016. The plan has not been finalized[7]. The draft plan describes the freight transportation system, including major corridors and gateways, and assesses the physical, institutional, and financial barriers to improvement. The draft plan also highlights strategies to help support our freight transportation system through improved planning, dedicated funding streams, and innovative technologies.

National Multimodal Freight Network

In 2016, the National Highway Freight Network (NHFN) replaced the Primary Freight Network (PFN) and the National Freight Network[8]. The NHFN was established to strategically direct federal resources and policies toward improved performance on highways carrying higher amounts of freight. As part of the NHFN, critical connections to freight facilities, such as rail intermodal yards, seaports and airports, were added through two new designations, Critical Rural Freight Corridors (CRFC) and Critical Urban Freight Corridors (CUFC). States and MPOs are responsible for designating facilities within their jurisdictions pursuant to federally set mileage allocations for each state.

The Highway Trust Fund and Federal Transportation Bills

In 2017, Highway Trust Fund (HTF) tax revenue totaled just over $40 billion[9], and approximately 86 percent of this revenue was raised through federal excise tax on gasoline and diesel fuels. Historically, the federal transportation bills have been funded by the HTF; however, this has been changing. Unlike many other federal excise taxes, the fuel tax is a flat tax that is not indexed to inflation. The fuel tax was last raised in 1993 and remains at $0.184 and $0.244 per gallon for gasoline and diesel fuel, respectively. Since that time, inflation has risen nearly 70 percent and cars have become more fuel efficient. Starting in 2008, Congress began transferring General Fund dollars into the HTF to sustain highway funding, but funding still lags behind where it was in the 1990s. Less federal funding has resulted in lower federal funding shares in projects across the nation. Some states, such as California, have proactively developed and implemented state and local taxes to build and maintain infrastructure. In addition to changes in federal funding levels, federal funding has become more focused on projects of national significance, such as projects that improve the movement of goods. The following summary of transportation bills focuses on those that began to include freight components, from ISTEA through the FAST Act. Since the early 1990s, recognition of freight has been reflected in these policies, and most recently through funding allocations.

ISTEA (Intermodal Surface Transportation Efficiency Act, 1991)
Since the inception of the Federal Highway Administration, freight's importance has been recognized by the federal government. However, the first federal transportation bill to take an overall intermodal and multimodal approach occurred in 1991 with the passage of ISTEA, which linked highway, rail, air, and marine transportation and made funding available for projects that reduced congestion, improved air quality, and improved safety[10].

One of ISTEA's chief goals was to develop a "National Intermodal Transportation System that is economically efficient and environmentally sound, provides the foundation for the nation to compete in the global economy, and will move people and goods in an energy-efficient manner."[11]

This bill also was the first to tie transportation improvements to air quality conformity in Regional Transportation Plans (RTP) and gave additional powers to MPOs. ISTEA did not include

set aside funding for freight projects, instead, ISTEA prioritized projects that supported intermodal transportation and high priority corridors many of which served freight. In California, ISTEA High Priority Corridors included the following:

- Corridor 16 (and 70), Economic Lifeline Corridor, I-15 and I-40 (California, Arizona and Nevada)
- Corridor 22, Alameda Corridor (POLA/ POLB to East Los Angeles)
- Corridor 30, I-5 (California, Oregon and Washington)
- Corridor 34, Alameda Corridor East (East Los Angeles to Barstow) and Southwest Passage (Coachella and San Bernardino to Arizona)
- Corridor 46, I-710 (POLB to SR-60)
- Corridor 69, Cross Valley Connector (I-5 to SR-14 in Santa Clarita Valley)
- Corridor 70 (and 16), Economic Lifeline Corridor, I-15 and I-40 (California, Arizona and Nevada)
- Corridor 71, High Desert Corridor (Los Angeles to Las Vegas)

The ISTEA provided more flexibility to states by reclassifying the highways with a focus on functional classification and establishing the NHS which brought greater focus to key state and local connectors that are vital to the nation's economy, defense, and mobility. The federal funding focus was altered through ISTEA, from major capital investments for new facilities to one of operations and maintenance. Lastly, the practice of public participation was instituted through ISTEA, and the Transportation Enhancement Program was established to fund community priorities, such as bikeways, historic and scenic preservation of byways, and environmental mitigation. Many of the planning principles that guide freight project planning and implementation as we know it today grew out of ISTEA.

TEA-21 (Transportation Equity Act of the 21st Century, 1998)

The TEA-21, a six-year omnibus funding bill for transportation, provided the first major funding for border crossings and trade corridors[12]. It also provided more funding for projects that increase America's competitiveness (port, intermodal, border crossing; also known as Projects of National and Regional Significance or PNRS).

In addition, TEA-21 provided the first funding for federal tracking and analysis of commodity flow data ($186M to Bureau of Transportation Statistics) and led to the Freight Analysis Framework (FAF) dataset that is still used by most states for freight planning and freight-related economic analyses. The TEA-21 continued the need for coordination with the U.S. EPA, as well as with MPOs. TEA-21 consolidated the 23 regional and statewide planning "factors" contained in ISTEA into seven broad "areas" that must be considered in RTPs, with a growing recognition of the importance of operations and maintenance:

- Support the economic vitality of the metropolitan planning area by enabling global competitiveness, productivity, and efficiency
- Increase the safety and security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility options available to people and for freight

- Protect and enhance the environment, especially by promoting energy conservation and improving quality of life
- Integrate and connect the transportation system across and between various transportation modes to prioritize people and freight
- Promote efficient system management and operation
- Emphasize the efficient preservation of existing transportation systems

SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act – a Legacy for Users, 2005)

The SAFETEA-LU provided funding for highways, highway safety, and public transportation totaling $244.1 billion, and it built on the success of the prior two landmark bills that brought surface transportation into the 21st century—ISTEA and the TEA-21 [13]. The SAFETEA-LU refined the programmatic framework for investments needed to maintain and grow our transportation infrastructure. Specifically, SAFETEA-LU addressed safety, traffic congestion, efficiency in freight movement, intermodal connectivity, and environmental protection. It also laid the groundwork for addressing future challenges that were beginning to surface in international trade and urban delivery, notably e-commerce. SAFETEA-LU included provisions for innovative financing and public-private partnerships, as well as special funding for freight pilot projects such as truck parking studies.

Moving Ahead for Progress in the 21st Century (MAP-21)

On July 6, 2012, MAP–21 was signed into law[14]. The MAP-21 provided over $105 billion in funds for surface transportation programs to be used in fiscal years (FY) 2013 and 2014. This transformed the framework for investments in transportation infrastructure. MAP-21 created a streamlined and performance- based surface transportation program building on many of the highway, transit, bike, and pedestrian programs and policies established in 1991.

Sections 1117 and 1118 of MAP–21 directed the Secretary of Transportation to encourage each state to develop a comprehensive state freight plan outlining immediate and long-range plans for freight- related transportation investments. Section 1116 of MAP–21 authorized DOT to increase the federal share of project costs to 95 percent for a highway project on the US Interstate system, or 90 percent for a non- Interstate project if the project is certified by the Secretary of Transportation to make a demonstrable improvement in the efficiency of freight movement and is included in the state freight plan.

In October 2012, the U.S. Department of Transportation provided the required guidance on the freight planning process states must undertake to qualify for the freight prioritization provisions of Section 1116.

Fixing America's Surface Transportation (FAST) Act

The FAST Act of 2015 provided $305 billion over five years for transportation funding[15]. This bill was the first to establish a permanent federal discretionary formula funding program specifically for freight projects, as well as a competitive freight projects grant program. Specifically, FAST did the following:

- Established a National Multimodal Freight Policy
- Required the development of a National Freight Strategic Plan
- Created a freight-focused grant program of $4.5 billion over five years
- Established the National Highway Freight Program that provides $6.3 billion in formula funds over five years for states to invest in freight projects on the National Highway Freight Network. Up to 10 percent of these funds may be used for intermodal projects. Current projections of funding competitively available for all states to pursue are: $293M for 2017/18, $115M for 2018/19, and $127M for 2019/20 for a total 3-year funding amount of $535M[16].

The FAST Act focuses on infrastructure investments, operations and maintenance, safety, and environmental sustainability. More emphasis is placed on innovation and technological advancements that improve the efficiency of moving goods while minimizing environmental impacts of freight. In addition, this bill fosters and promotes interstate partnerships to address multi-state corridor planning and highway freight connectivity.

State Freight Policies and Plans

California has long been a leader in logistics and the movement of goods. The State understands how critical freight is to jobs and prosperity both within California and for the nation. California is home to the nation's largest container seaport, the San Pedro Bay Ports of Los Angeles and Long Beach, the largest agricultural production in the Central Valley, the largest logistics facilities cluster, and several of the largest population centers. California moves significant amounts of cargo on trains, planes, trucks – and more recently by automobiles, bicycles, pedestrians, and even robots. The following discusses the State's progress and policy experience and provides a launch point for the update of the State's Freight Mobility Plan.

California Freight Mobility Plan (2014)

The 2014 California Freight Mobility Plan (CFMP) was successful in establishing existing conditions, identifying funding, and sketching a roadmap for implementing plans and programs to improve the efficiency of freight transportation throughout California[17]. The plan focused on the following goals:

- Economic Competitiveness: Improve the contribution of the California freight transportation system to economic efficiency, productivity, and competitiveness
- Safety and Security: Improve the safety, security, and resilience of the freight transportation system
- Freight System Infrastructure Preservation: Improve the state of good repair of the freight transportation system
- Environmental Stewardship: Avoid and reduce adverse environmental and community impacts of the freight transportation system

- Congestion Relief: Reduce costs to users by minimizing congestion on the freight transportation system
- Innovative Technologies and Practices Use innovative technology and practices to operate, maintain, and optimize the efficiency of the freight transportation system while reducing environmental and community impacts

California Sustainable Freight Action Plan (2016)

The California Sustainable Freight Action Plan (CSFAP) was developed jointly by Caltrans, the California Air Resources Board (CARB), the California Energy Commission (CEC), and the Governor's Office of Business and Economic Development (GO-Biz) pursuant to the following two executive orders signed by the governor[18]:

- Governor's Executive Order B-32-15[19]
- Governor's Executive Order B-30-15 establishing a 2030 GHG emissions target of 40 percent below 1990 levels and requiring State agencies to incorporate climate change impacts into the State's Five-Year Infrastructure Plan

The key underpinning of the orders was the recognition that California continues to be a non-attainment area under federal air quality standards, and mobile sources in California are the primary contributors to the State's emissions problem. The CSFAP's guiding principles are as follows:

- Support local and regional efforts to improve trade facilities and corridors that achieve regional environmental, public health, transportation, and economic objectives consistent with statewide policy goals
- Grow the economic competitiveness of California's freight sector
- Grow the number of well-paying employment opportunities in the freight sector
- Reduce freight-related deaths and injuries, and security threats
- Reduce or eliminate health, safety, and quality of life impacts on communities that are disproportionately affected by operations at major freight corridors and facilities. This includes reducing toxic hot spots from freight sources and facilities and ensuring continued net reductions in regional freight pollution
- Improve the state-of-good-repair of the multi-modal freight transportation system
- Invest strategically to improve travel time reliability and to achieve sustainable congestion reduction on key bottlenecks on primary trade corridors
- Apply innovative and green technology, along with accompanying infrastructure and applicable practices, to optimize the efficiency of the freight transportation system
- Invest strategically to accelerate the transition to zero and near-zero emission equipment powered by renewable energy sources, including supportive infrastructure
- Improve system resilience by addressing infrastructure vulnerabilities associated with expected climate change impacts and natural disasters, which may include exploring opportunities to utilize natural systems to improve water quality, reduce ecosystem damage, prevent flooding, and create a cooling effect

- Site freight projects to avoid greenfield development by enhancing existing freight infrastructure or targeting infill development near compatible land uses

The CSFAP focuses on aligning the need to move goods with the needs to reduce emissions through provisions for cleaner technologies, especially on-road trucks and off-road cargo handling equipment. Understanding how difficult some of the mandates of the Plan would be for the freight industry to incur, $1 billion in funding was allocated to the industry for the procurement of cleaner goods movement technologies through Proposition 1B. The Plan also established air quality and efficiency targets for freight, including the following:

- System Efficiency – 25 percent efficiency by increasing the value of goods and services produced from the freight sector relative to the amount of its produced carbon
- Transition to ZE Technology – deploy over 100,000 ZE and near-ZE freight vehicles and CHE powered by renewable energy by 2030

The CSFAP additionally acknowledged the potential impact on businesses and included a policy aimed at increasing competitiveness and economic growth by developing key performance metrics for measuring economic competitiveness through collaboration with economists and industry experts. In addition, the Plan outlined potential freight funding sources to implement the Plan, including federal funding, State SB 1 ($0.12 gas tax) freight funding allocation, and Cap and Trade. Furthermore, the Plan developed an approach to fund ongoing freight investments by the below:

- Prioritizing projects
- Building upon existing infrastructure
- Investing in sustainable communities (clean air initiatives related to goods movement)
- Investing in fueling infrastructure of the future
- Eliminating/reducing congestion/freight bottlenecks

Lastly, the CSFAP established a Call for Pilot Projects focused on cleaner technologies and operational innovations.

State Rail Plan (2018)

The 2018 State Rail Plan (Rail Plan) was developed pursuant to the federal Passenger Rail Investment and Improvement Act (PRIIA 2008) and state legislature AB 528 (2013). The Rail Plan establishes a statewide vision of an integrated rail system[20], and describes a policy framework for working with, and guiding public and private investments that enhance freight movement while providing co-benefits with passenger services. The integrated vision is dependent on more efficient utilization of the existing rail system, expanding the coverage and mix of rail services in several corridors, scaling services to meet market demand, and facilitating network coordination through scheduling. For freight movements, this integrated system means better system reliability and a clear pathway to growing capacity. Improvements in rail freight reliability result in the form of economic benefits that reverberate locally, regionally, and nationally. By improving rail infrastructure to attract additional long-distance freight

movement, extra capacity is created on highways for passengers and short-distance freight travel. The improvements identified in the Rail Plan are designed to either preserve rail freight capacity, or to provide for rail freight enhancements in certain high traffic corridors, particularly intercontinental trade corridors that provide rail connections to ports. The improvements are categorized in six major areas of need and opportunity:

- Trade corridor improvements
- Economic development and short lines
- Grade-crossing improvements
- Additional terminal and yard capacity
- Short-haul rail improvements
- Advancement of zero- and near-zero- emissions technologies

Rail is an effective mechanism for congestion relief by diverting truck trips which can reduce congestion contributing to emissions reductions and improve safety on the roadway networks. Rail investments can make a region more economically competitive, attracting development from other regions.

Integrated Energy Policy Report

The California Energy Commission's (CEC) 2017 Integrated Energy Policy Report covers a broad range of topics, including implementation of SB 350, integrated resource planning, distributed energy resources, transportation electrification, solutions to increase resiliency in the electricity sector, energy efficiency, transportation electrification, barriers faced by disadvantaged communities, demand response, transmission and landscape-scale planning, the California Energy Demand Preliminary Forecast, the preliminary transportation energy demand forecast, renewable gas (in response to SB 1383), updates on Southern California electricity reliability, natural gas outlook, and climate adaptation and resiliency. The CEC is anticipating that more than 25 percent of heavy-duty trucks will be electric-diesel hybrids by 2030. This report also provides extensive information about natural gas pipeline infrastructure and the ability to fuel transportation with our existing assets.

Safeguarding California: Reducing Climate Risk Update (2017)

The California Natural Resources Agency's Climate Adaptation Strategy identifies vulnerabilities throughout California and identifies strategies to mitigate them[21]. Climate change impacts from sea-level rise, storm surge, and coastal erosion have been identified as imminent threats to highways, roads, bridge supports, airports at or near sea level, seaports, and some transit system and rail lines. Shifting precipitation patterns, higher temperatures, wildfire, and an increased frequency of extreme weather events threaten transportation assets at varying locations across the state.

Temperature extremes and increased precipitation can increase the risk of road and railroad track failure, decrease transportation safety, and create higher maintenance costs. As climate

changes occur over time, the choices for the State and all the transportation partners are to build protection against the threat (defend), redesign the infrastructure (accommodate), or abandon and relocate (retreat). The economic cost associated with such fortification, alteration, or relocation of existing infrastructure has yet to be fully estimated but is it likely to be billions of dollars. Impending climate impacts have implications not only for the siting of new transportation infrastructure, but also maintenance and operation, design features of transportation systems, and emergency planning and response for extreme climate events.

California Transportation Plan 2040

The California Transportation Plan 2040 (CTP) is California's long-range transportation plan and is currently in the process of being updated[22]. Pursuant to California Government Code (GC) §65073.2, the CTP defines the statewide multimodal transportation system that is necessary to meet GHG emissions targets to obtain 1990 levels by 2020 and 80 percent below the 1990 levels by 2050. To meet these goals, GC §65071 requires Caltrans to update the CTP every five years. The CTP 2040 is an umbrella plan that integrates Caltrans' modal plans into a statewide multimodal transportation vision. The CTP 2040 offers a detailed overview of the existing transportation network and assesses future transportation trends and challenges. The CTP offers strategies that improve mobility and accessibility across all modes, contribute to system preservation, support a vibrant economy, improve public safety and security, promote livable communities and social equity, and support environmental stewardship.

Caltrans Strategic Management Plan 2015-2020

The Strategic Management Plan shifted Caltrans from a capacity-building to a fix-it-first mentality, focusing in on improving system operations, achieving greater efficiency, and eliminating the backlog of maintenance projects[23]. The Plan provides a roadmap for Caltrans by defining its role, setting expectations, and focusing on operations. The Plan proposes several performance measures and targets that are in line with the Departments five goals, which are:

1. Safety and Health
2. Stewardship and Efficiency
3. Sustainability, Livability, and Economy
4. System Performance
5. Organizational Excellence

Caltrans Interregional Transportation Strategic Plan (ITSP) 2015

The ITSP provides guidance for the identification and prioritization of interregional transportation improvements[24]. Projects identified are eligible for Interregional Transportation Improvement Program (ITIP) funding. The 2015 ITSP expanded the analysis from focusing on ITIP investment in interregional highways and intercity rail to analyzing the entire interregional transportation system regardless of funding source. The purpose of the ITSP is to be a guiding document for all investment in the interregional transportation system.

2020-2024 Strategic Highway Safety Plan

The Strategic Highway Safety Plan (SHSP) is a statewide, coordinated safety plan that provides a comprehensive framework for reducing highway fatalities and severe injuries on all public roads[25]. It identifies key safety needs and guides investment decisions towards strategies and countermeasures with the most potential to save lives and prevent injuries. This document relies on data to identify problems and develop solutions. California adopted the following measurable objective for the SHSP:

- Establish a trend towards zero fatalities and serious injuries by 2050

The first SHSP was required by the Safe, Accountable, Flexible, Efficient Transportation Equity Act-A Legacy for Users (SAFETEA-LU) in 2005 and the FAST Act made the SHSP a permanent program. The current SHSP spans 2020-2024 and was developed with the involvement 101 stakeholders from both the private and public sectors that represented the 5 E's of traffic safety - Engineering, Enforcement, Education, Emergency Response, and Emerging Technologies. SHSP Executive Leadership and a 16-member Steering Committee provided oversight. The SHSP includes 16 "Challenge Areas", or areas on which the plan focuses efforts, and proposes strategies and strategic action items to address those challenge areas. The next SHSP in under development and will span from 2025-2029.

Recent State Legislation Related to Freight

This section highlights numerous recent State legislations but is not all encompassing. There are various recent legislations that have had a direct and indirect impact on freight.

Trade Corridor Enhancement Program (TCEP) 2018

SB 1 TCEP Provisions

SB 1 created the Road Maintenance and Rehabilitation Program to address deferred maintenance on state and local roadway systems throughout the state through a combination of fuel taxes and license and registration fees[26]. SB1 increased State gas tax by $0.12 per gallon for gasoline and $0.20 per gallon for diesel fuel and included an inflation adjustment factor. The bill increased vehicle license fees by $25 to a maximum of $175 and adjusts for inflation. Recognizing that the State is aiming for more EV registrations, the bill also created a new $100 increase in vehicle license fees for zero-emission vehicles starting in 2020 with an inflation adjustment factor. SB1 provides an annual set-aside of $200 million for self-help counties, defined as counties with adopted transportation sales tax measures and/or established development impact fee programs. 50 percent of the revenue generated by the $0.20 per gallon diesel fuel tax will be deposited into the newly created Trade Corridor Enhancement Program to expend on corridor-based freight projects resulting in an estimated 10-year funding of $3 billion. Furthermore, SB1 created a $30 million annual Advanced Mitigation Program to protect natural resources and accelerate project delivery.

SB 103 TCEP Provisions
SB 103 deleted references to the Trade Corridor Infrastructure Fund (TCIF), revised the TCIF requirements, and applied the revised TCIF requirements to the Trade Corridor Enhancement Program[27]. SB 103 also mandates the California Transportation Commission (CTC) to allocate 60 percent of the available funds to projects nominated by regional transportation agencies and local agencies with the remaining 40 percent to be allocated to projects nominated by Caltrans.

Senate Bill 1: Solutions for Congested Corridors Program (SCCP)
SB 1 created the SCCP which continuously provides $250 million annually for projects that improve highly congested and traveled corridors throughout the state. For projects to be eligible for SCCP funding, the regional transportation planning agency or other eligible agency must have a Comprehensive Multimodal Corridor Plan. The CTC selects these projects based on their ability to balance transportation, environmental, and community access needs through the promotion of a holistic and multimodal approach. On December 5, 2018, the CTC adopted the 2018 Comprehensive Multimodal Corridor Plan Guidelines. The improvements must consider the movement of people and goods on all modes, and improvements are not limited to state highways, but rather, may also be on local streets and roads, public transit and rail facilities, cycling and pedestrian facilities, required mitigation and restoration, or some combination of solutions.

Pursuant to Streets and Highways Code (SHC), a comprehensive multimodal corridor plan must be submitted at the time of the project funding application. CTC will review and approve projects pursuant to the following criteria:

- Congestion reduction in highly traveled corridors by providing more transportation choices for residents, commuters, and visitors to the area of the corridor while preserving the character of the local community and creating opportunities for neighborhood enhancement projects. [SHC 2391]
- Reflects a comprehensive approach to addressing congestion and quality-of-life issues within the affected corridor through investment in transportation and related environmental solutions. [SHC 2392]
- Developed in collaboration with state, regional, and local partners. [SHC 2392]
- Evaluated the following criteria as applicable [SHC 2394]
    - Safety
    - Congestion
    - Accessibility
    - Economic Development and Job Creation and Retention
    - Air Quality and Greenhouse Gas Emissions Reduction
    - Efficient Land Use
- Consistent with the goals and objectives of the Regional Transportation Plan [SHC 2393].

Assembly Bill 32 (AB 32)

AB 32, the "California Global Warming Solutions Act of 2006," created the Cap-and-Trade Program, which requires California to reduce its GHG emissions to 1990 levels by 2020—a reduction of approximately 15 percent below emissions expected under a "business as usual" scenario. In addition, SB 862 established a long-term funding plan for portions of Cap-and-Trade Program money, including a continuous appropriation of 25 percent of the funds to the California High-Speed Rail project and 10 percent to the Transit and Intercity Rail Capital Program. In 2017, Assembly Bill 398 extended the Cap and Trade Program through 2030.

Assembly Bill 133 (Weber, 2016)

This bill provided transfer of $11M to the Trade Corridor Improvements Fund (TCIF), a program initially implemented and funded by Proposition 1B. The TCIF funds can be used directly or indirectly to improve freight movement in key corridors.

Senate Bill 350 (de Leon, 2015)

On October 7, 2015, the California State Senate passed Senate Bill 350: Clean Energy and Pollution Reduction Act into law[28]. SB 350 established California's 2030 greenhouse gas reduction target of 40 percent below 1990 levels. To achieve this goal, SB 350 sets ambitious 2030 targets for energy efficiency and renewable electricity, among other actions aimed at reducing greenhouse gas emissions across the energy and transportation sectors.

Senate Bill 743 (D. Steinberg, 2013)[29]

Signed in 2013, SB743 has the intent to "more appropriately balance the needs of congestion management with statewide goals related to infill development, promotion of public health through active transportation, and reduction of greenhouse gas emissions." When implemented, "traffic congestion shall not be considered a significant impact on the environment" within California Environmental Quality Act (CEQA) transportation analysis.

SB 743 requires the Governor's Office of Planning and Research (OPR) to identify new metrics for identifying and mitigating transportation impacts within CEQA. For land use projects, OPR identified Vehicle Miles Traveled (VMT) per capita, VMT per employee, and net VMT as new metrics for transportation analysis. For transportation projects, lead agencies for roadway capacity projects have discretion, consistent with CEQA and planning requirements, to choose which metric to use to evaluate transportation impacts.

Regulatory changes to the CEQA Guidelines that implement SB 743 were approved on December 28, 2018. July 1, 2020 is the statewide implementation date and agencies may opt-in use of new metrics prior to that date.

Regional Freight Policies and Plans

Caltrans Districts Freight Plans

District 3 Goods Movement Study (2015)
This study includes a comprehensive list of freight flows by all modes moving in and through the Sacramento region, an evaluation of projects on the State Highway System and intermodal connectors, and recommends strategies for addressing congestion, safety, efficiency, and ongoing operations and maintenance concerns. The study provides an overview of funding mechanisms and recommendations for prioritization and implementation.

District 9: Eastern Sierra Corridor Sustainable Freight Strategies Study (2019)
The Eastern Sierra Corridor Sustainable Freight Strategies Study, completed in 2019, is taking a fresh look at issues along U.S. 395 generally between I-40 on the south and I-80 on the north. Key issues included identifying and addressing truck parking shortages, as well as operational improvements for trucks.

District 9: Goods Movement Study for US 395 Corridor (2006)
Caltrans District 9 commissioned this study to investigate truck traffic origins and destinations on U.S. 395. The study involved paper surveys and interviews of truck drivers along the corridor to gain a better understanding of why trucks use U.S. 395, and to also understand how the drivers feel about the conditions of the roads and to seek comments and input. The Eastern Sierra Corridor Sustainable Freight Strategies Study provided an update to this effort.

Regional/County Freight Plans

California-Baja California Border Master Plan (2014)
The California-Baja California Border Master Plan, completed in 2014, was a bi-national effort to coordinate planning and delivery of projects at land port of entries and the transportation infrastructure serving them. The primary objectives of the California-Baja California Border Master Plan were to increase the understanding of Port of Entry (POE) and transportation planning on both sides of the border and create a plan for prioritizing and advancing POE and related transportation projects.

Based on the outcomes of this pilot bi-national planning process, the California-Baja California approach could be expanded to other border states and customized to address their needs, resulting in a master planning process for the entire U.S.-Mexico border.

Regional Transportation Plans (RTP), Goods Movement Sections
There are 18 MPOs and 26 RTPAs in California that are responsible for developing Regional Transportation Plans (RTP) for their respective areas. Pursuant to federal and state statutes and regulations, each RTP must address goods movement. The RTP guidelines list 11 items that must be addressed in the RTPs for both MPOs and RTPAs. As stated in the RTPA RTP Guidelines:

> "RTPAs must plan for the goods movement infrastructure in the same way they plan the transportation infrastructure for the movement of people to support projected population growth and economic development[30]."

The most urban regions began preparing goods movement plans in the mid-2000s, such as SCAG and MTC. All the current RTPs for the MPOs and RTPAs include a list of freight projects, programs, and needs. These projects are incorporated into the CFMP. In addition to the regional transportation plans, regional planning agencies have commissioned the following freight plans:

Alameda County Goods Movement Plan (2016)
This countywide goods movement plan, a first for Alameda County, took a holistic view of freight from an industry and a neighborhood perspective[31]. The plan stemmed from the MTC Goods Movement Plan, but locally, this plan focused on congestion, truck parking, air quality, and conflicting land uses, whereas regionally and nationally, it focused on rail and road connections. The Plan identified performance measures, analyzed existing and future conditions, identified needs, and provided a comprehensive strategy for funding the County's freight infrastructure needs.

US 101 Central Coast California Freight Strategy
This study of US 101 from San Benito County to the North to Santa Barbara County to the south includes a set of freight performance metrics and weights to prioritize funding for projects, identifies projects that will improve the movement of goods along US 101 and key connecting routes, and established strategies for implementation. This plan set a precedent for interregional cooperation on freight planning and provided a path forward for lobbying on freight issues to capture its fair share of freight funding.

I-5/SR 99 Freight Corridor Study (2017) / Central Valley Sustainable Goods Movement Study (2017)
These two studies analyze goods movement in the Central Valley. The I-5/SR 99 study covered the 200-mile stretch of the I-5 and SR 99 corridors from the southern limit of Kern County to the northern limit of San Joaquin County in the Central Valley. This study identified freight and logistics clusters and the origins/destinations of a sample of trucks stopping at these freight clusters. This information was used to identify truck patterns in the region and correlate them with truck-involved crashes, speeds, and congestion along the corridors to guide the development and implementation of strategies to improve truck flows and travel time reliability. Closely related and prepared during the same timeframe using some of the same data sources, the Central Valley Sustainable Goods Movement Action Plan focused on first- and last-mile connectors to freight clusters and investigated potential Critical Rural Freight Corridors (CRFC).

Goods Movement Border Crossing Study (SANDAG, 2012)
This study focused on the inter-relatedness of the U.S. and Mexican economies along California's southern border[32]. The purpose of this study was to focus on identifying

infrastructure improvements that would improve logistics and create economic benefits. The study identified the importance of the SCAG and SANDAG regions to the Mexicali, Mexico region, and vice-versa through a high-level characterization of the supply chains for large, multinational firms that heavily rely on cross-border transportation.

On the Move, Southern California Delivers the Goods (2012) /Multi-County Goods Movement Action Plan (MCGMAP) (SCAG, 2004)

In 2004, Los Angeles County Metropolitan Transportation Authority (LA Metro) spearheaded the development of MCGMAP, which consisted of LA Metro, Orange County Transportation Authority (OCTA), Riverside County Transportation Commission (RCTC), San Bernardino Associated Governments (SANBAG), San Diego Association of Governments (SANDAG), Ventura County Transportation Commission (VCTC), Southern California Association of Governments (SCAG), and Caltrans Districts 7, 8, 11, and 12. MCGMAP was the master plan for goods movement in Southern California that guided preparation of state, regional, and local transportation plans. The objective of the MCGMAP was to develop strategies and projects that: 1) address the goods movement infrastructure capacity needs of the region; 2) reduce goods movement emissions to help achieve air quality goals; and 3) improve the quality of life and community livability for Southern California residents[33].

The strong collaboration within the entire SCAG region resulted in Southern California obtaining more than 50 percent of the Proposition 1B TCIF dollars, which it was then able to leverage for federal funding. The collaborative was unified in its messaging under this process when traveling to Sacramento and Washington, D.C. in search of funding.

In 2012, SCAG updated MCGMAP with new information, including an updated cargo forecast from the San Pedro Bay Ports, updated industrial warehouse demand and capacity estimates, and the latest environmental policies, programs and strategies for addressing the impacts of goods movement in the region[34]. SCAG incorporated recommendations from this study into the 2012 RTP/SCS.

Los Angeles County Strategic Goods Movement Arterial Plan (CSTAN, 2015)

The CSTAN is a planning tool that is intended to accomplish six goals:

1. Identify truck arterial system needs and connectivity gaps
2. Prioritize funding to projects showing the greatest expected benefits
3. Minimize truck and pedestrian/bicycle conflicts
4. Establish a database of arterial truck data that can be used by industry as well as for planning purposes
5. Assist the trucking industry in identifying designated truck routes
6. Support the development of the Federal PFN

LA Metro is currently updating their freight plan. LA Metro expects to complete the plan by 2020.

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