

5.B. Partnerships & Engagement

This section provides a summary of stakeholder input collected through an online survey, one-on-one interviews with freight industry representatives, focus groups, public workshops and events, and at the 2017 California Freight Symposium. Among the biggest concerns of those contacted were economic competitiveness, emerging technologies, workforce recruitment and retention, environmental impacts, and new projects types the respondents could expect to see:

Stakeholder contacts included the following:

- A targeted online survey.
- Industry focus groups attended by industry, trade association representatives and regional public agencies.
- Individual in-person or telephone interviews with representatives of ports, railroads, the trucking industry, and an industrial development firm.
- Break-out sessions and workshops at CFAC meetings throughout the development of the CFMP.
- Public workshops held in West Sacramento and Diamond Bar.
- Four Tribal Listening Sessions held in Northern, Central, and Southern California.
- Public outreach events held in various parts of the state at existing public events including communities identified under AB 617.
- Digital Outreach via Facebook (social media) that directed the public to an online survey.

Details of the stakeholder outreach and engagement process are provided in **Appendix H** along with more detailed descriptions of results. The conversations that occurred during the industry workshops, public meetings, and one-on-one meetings illuminated different areas of importance. Participating members of the industry focused on the economic viability to continue operating in California; residents and community members focused on environmental issues and congestion; and public agencies focused on infrastructure planning, policies, and programming. Our findings are categorized into these general topics:

- Competitiveness
- Technologies
- Workforce
- Environmental Impacts
- Projects

Competitiveness

California's economic competitiveness relies upon the expedient and reliable movement of goods, with no particular funding preference given to freight delivery modes via air, sea, or land. Although California has a substantial share of the nation's market for shipping and logistics, the state could increase its competitiveness by better integrating its varying priorities. Many of the strategies to improve California's competitiveness also improve other facets of the freight

industry. For information regarding California competitiveness, please refer to **Chapter 2** and **Appendix C**.

Partnership

State agencies can work together to streamline CEQA compliance and offer grants or incentives for compliance with CARB regulations. Furthermore, cooperative efforts to lower the cost of living, primarily housing, can serve as an incentive to recruit and retain a workforce. In partnership with the public education system, private companies can recruit and train a qualified workforce. Furthermore, the State can explore ways to decrease speed differentials between commercial trucks and passenger vehicles and increase weight limits. Increased collaboration on statewide and regional economic development efforts have a ripple effect, inspiring implementation of more efficient and sustainable practices.

Reliability

Reliable infrastructure is necessary for logistics facilities to function properly. The freight system relies on the State to provide adequate facilities for travel and rest as well as signage and travel time. The State can also ensure excellent roadway and highway pavement conditions with the goal of easing urban and highway congestion. This has the potential not only to increase the State's competitiveness by increasing productivity and reliability, but also improves conditions for the state's workforce.

One example of a multifaceted approach to increase California's competitiveness would be to implement more efficient technology to help lower costs. However, this would also likely require making changes to electric power rate structures to make predicting the cost of electricity feasible and reliable.

Seaports

According to focus group participants, a focus on performance goals could help increase economic competitiveness of California's seaports. Electrification of port equipment and drayage tractors will require substantial investment in the electric power infrastructure. Although it reduces GHG emissions significantly, shore power infrastructure is costly to construct and operate. Finding ways to collaboratively design strategies between State regulations and privately-held interests can help improve port competitiveness. Some such strategies include prioritizing and incentivizing industrial buildings near ports and markets through streamlined permitting and financial assistance for private industries who invest in ports, especially as they relate to ZEVs.

Technologies

Investing in new and innovative technologies can increase California's competitive edge within the freight sector by making travel times more reliable, decreasing fuel costs, and improving efficiency. New environmental beneficial technologies also have the potential to lessen the

environmental impacts of the industry and make it a more desirable profession to the workforce. The State can play a significant role in providing or incentivizing infrastructure development, particularly electric power and alternative fuels infrastructure that is otherwise holding back technology adoption. The State can also lead research and development through special study contracts and create specific, internal programs to the effort. Moreover, the outcomes from research can inform the private industry on which technologies to adopt without needing to spend resources on technologies that may not pan out, therefore increasing competitiveness of California's private entities.

Truck Platooning and Autonomous Vehicles

Truck platooning and the use of autonomous vehicles have the potential to eliminate driver-caused errors, increase safety, decrease travel times, and decrease fuel usage. Despite this, many private sector stakeholders are hesitant to adopt platooning, expressing that the fuel savings benefits need to be studied further. This may be due to the possibility that platooning meets significant barriers in urban areas and last-mile deliveries. Smooth transitions between long-haul and shorter distance deliveries would need to be clearly defined and coordinated, as automobile and light-duty truck entrances and exits onto roadways may disrupt platoons. In addition to the obstacle posed by heavily urbanized areas, loss of communications in hilly or mountainous areas can affect performance so investments need to be made to increase service reliability.

Some regard the use of autonomous vehicles as a possible solution to the driver shortage. The State of California is a major fleet operator and could use its State vehicle fleet to test new technologies. The potential for autonomous trucking may be limited to designated corridors, such as where dedicated lanes are provided.

Port Terminal Automation

Port terminal automation speeds up operations at the ports, which makes loading and offloading cargo safer, faster, creates more efficient use of space at ports and on ships, and decreases the time spent moving goods. Use of automated, remotely automated, or manned new types of cargo handling equipment have the potential for increasing the velocity of containers. For ports to continue making investments in automation, some stakeholders expressed that the State should incentivize terminal operators to simultaneously pursue automation and ZE technologies. However, other stakeholders felt that port automation technologies will have too much impact on the freight workforce and should be used only in agreement with labor unions. Initiatives to retrain the existing workforce and focus on advancing skills should be highly considered.

Information Technologies

One critical item identified was the need for improved network cell phone connection and infrastructure. In the northern regions of California, for example, there is a lack of available cell reception, due to greater distances between cell phone towers and dispersed populations. Possible solutions include maintaining up-to-date and accurate information on navigation systems and social media feeds, promoting 1-800-427-ROAD (7623), developing mobile

applications to help notify drivers of problems on the road, increasing broadband availability and ITS applications (such as CMS), and developing maps specific to trucks for appropriate alternative route options during traffic incidents and road closures.

Another need in the information technology sector is further development and refinement of terminal appointment systems, which have made positive differences at ports and receivers. This would greatly increase worker productivity and reduce emissions from idling vehicles.

Even though the industry relies on broad access to industry data, stakeholders typically do not share their proprietary information for competitive reasons. IT experts from private industry, various ports, retailers, and cyber security firms should convene to develop a protocol for sharing data across networks, while also ensuring privacy of confidential data and proprietary information.

Mandated Technology

The mandated use of Electronic Logging Devices (ELDs) was intended to increase safety by requiring truckers to stop and rest after a certain number of hours on the road. Mandated use of ELDs, in addition to adherence to company policies, sometimes cause drivers to operate during congested times or during incidents, meaning added delay on local and state roadway systems. For example, if a driver has driven for the maximum amount of time allowed by law, then they must stop and take a break to maintain in good standing with their company and the law. This can force drivers to stop against their better judgement, instead of allowing them to continue past a section of highway or city known for congestion. The driver, then at the end of the break period, will need to continue on to their destination, regardless of traffic conditions. This causes added congestion onto the highways and delays for truckers. Drivers face harsh penalties for non-compliance with ELD mandates and to avoid fines, they may speed which impacts public safety. ELD mandates also decrease driver productivity because the clock, which counts towards total driving hours, cannot be stopped between non-driving activities, such as loading, unloading, or other responsibilities.

Easing restrictions or amending existing regulations may alleviate the disconnect between ELD mandates and business operations to increase the safety of the traveling public, while also ensuring economic competitiveness of California's freight system and safe working conditions for drivers.

Technology Grant Programs

To remain competitive, funding opportunities should be expanded and shared widely so more private businesses can take advantage of them. Although grant funding is sometimes the condition on which new technologies are implemented, many private organizations, especially smaller ones, do not have grant writers or grant administrators to help with the process.

New regulations that will require replacing older equipment with cleaner ones are attainable, but these regulations add business costs and uncertainties contributing to decisions to expand or relocate outside of California. Those who participated in focus groups felt the State should

continue to encourage private investment in new and better chassis, global positioning systems (GPS), and related communications and dispatching technologies.

Technology research, development, and implementation play an important role in emissions compliance and environmental benefits. There is a push in the industry to reduce emissions through hybridization. For example, BNSF has obtained grant funding for a demonstration between Stockton and Fresno in which low-emissions or zero-emissions drayage equipment will be part of new terminal projects. Railroads will likely pursue some level of terminal equipment automation. Short line railroads have benefited from Carl Moyer grants and other funding for locomotive replacement, but more help is needed to meet technology needs.

Implementation of New Technologies

Often, emerging technologies serve as the key to lessening the environmental impacts of freight activities. Even so, alternative fuel infrastructure often lags vehicle technology, creating a barrier to achieving GHG reduction targets. For example, while there may be an increase in the number of electric trucks, there are very few places to charge them. Increasing use of alternative fuels (natural gas, hydrogen, electric power) and creating more infrastructure to support its use could, in turn, reduce congestion and transit time. Additionally, less conventional approaches to improve efficiency, such as truck platooning, also have advantages that are often overlooked and would greatly lessen the environmental impacts of goods movement.

Workforce

There is a national shortage of qualified truck drivers. The truck driver shortage is a special workforce issue and a factor in all other categories— competitiveness, sustainability, and technology. This issue was raised in every outreach forum and survey. Although this problem is less prevalent in California than in other parts of the country, the outreach phase of the CFMP yielded a variety of solutions to increase the number of skilled drivers to meet the growing demand in our state.

Barriers to Entry for Potential Drivers

The largest barrier to entry for new drivers entering the trucking profession is the cost of trucking school. Drivers must often go into debt to attend driver school. Furthermore, insurance companies require two years of experience before they will cover a driver, but a new driver is unable to gain any experience without first having insurance.

The State has already begun addressing this issue by building a connection between education and the private sector through training offered at public colleges and job placement services for graduates. For example, Long Beach City College offers a program to prepare students for a commercial driver's license (CDL) and place them with Harbor Trucking Association members.

These efforts can be augmented by increasing the number of these programs available throughout the state and offering more grant and scholarship programs to incentivize students to choose trucking as a career. Private sector companies can increase participation in job

training programs in partnership with universities and offer scholarship programs of their own. Additionally, the public secondary education system can emphasize the value of hands-on professions and trades, rather than solely focused on a four-year college.

Working Conditions and Compensation

Another strategy for strengthening the trucking workforce focuses on driver retention. Trucking often requires long hours at night, early mornings, and time away from home for drivers. The private and/or public sector need to provide safe and legal options for truck parking, so drivers can take breaks between assignments and comply with the regulations for mandatory rest periods. Not only would an increase in truck parking make roads safer, but it also would reduce the number of drivers being ticketed or towed for taking breaks in prohibited areas.

Freight operations is an industry rife with intense competition that holds down rates and wages. Drivers often face a lack of competitive pay compared to other industries. One way the state can ease the financial pressure placed on drivers is to increase the amount of affordable housing options within California to help compensate for the competitive wages offered by the industry.

Driver Productivity

A third strategy for meeting demand for qualified drivers is to maximize productivity of the existing workforce. Driver productivity is often lost to urban traffic and highway congestion. Similarly, longer port turn times force drivers to sit idly while making little progress on their deliveries. Recently, there has been an adverse impact on driver productivity due to complexities of empty container and chassis returns, the limitations of current appointment systems, and the reduced opportunity to make dual moves (which have reportedly declined from 81 percent to 19 percent). By better coordinating deliveries with off-peak hours, tracking chassis and containers, and strengthening the appointment system, the capacity of the existing workforce can be better harnessed.

Environmental Impacts

Environmental responsibility is a crucial consideration and one that cuts across a range of other issues. Some stakeholders view a conflict between environmental responsibility and the need for employment and earnings security. However, there are many ways in which the State can marry environmental conservation efforts with other policies to implement the shared vision for a thriving transportation system.

Funding

Many freight industry stakeholders expressed concern about the cost of regulation compliance cutting into profit margins and losing business to other states with lower environmental standards. To maintain its current freight industry market share, the State can increase the number of grant and incentive programs to support ZE compliance. This could take the form of providing subsidies or incentives for state regulatory compliance, grants for the implementation of ZE technologies or assistance with the costs, or labor supply and costs of retraining. By better aligning the available funding and financing to what the industry needs, the State may more effectively work with trucking companies of all sizes to meet its goals.

Another key funding priority is increased railroad infrastructure. Short line rail lines have the ability to ease highway congestion through modal shift. However, short line railroads would benefit from increased local and state recognition and cooperation. Achieving the expected public benefits of modal shift will require public financial support, including a strong partnership with CARB.

Projects

Freight infrastructure improvements should focus on maintenance, safety, freight rates per mile, system continuity, system redundancy, and pavement condition improvements. To serve the interests of all users, freight stakeholders should use an integrated approach assessing the needs of the freight system and when developing multi-faceted projects that encourage cross-collaboration with public and private partners.

The best resource available to measure progress and rate achievements is the CFAC and its members. The CFAC should encourage the freight industry to actively participate in CFAC meetings and collaborate with its members to support and inform decisions that yield the highest returns.

Trucking Projects

Often, the projects that have the largest, positive impact on freight are those which focus on bottleneck relief, such as truck climbing lanes, passing lanes on rural routes, interchange and entrance/exit geometry improvements, filling capacity gaps in major routes (e.g. SR 99), adding weigh stations and WIM scales, and improving connectivity of east-west connectors between U.S. 101, SR 99 and I-5.

As previously mentioned, California has a shortfall of truck parking, which is needed to operate a safe highway system for passenger vehicles, truckers and the environment. Many truck drivers resort to parking in non-sanctioned areas due to overcrowded, sparse truck parking. To alleviate this, the State should determine where truck parking, rest stops, and truck stops are needed and start a program to provide them by both private and public sectors. The State should also locate and mark safe stopping spots for mandated breaks and consider identifying, marking, and creating legal parking spots on Caltrans' right-of-way when private sector options are not available. The upcoming Statewide Truck Parking Study will help identify unmet parking demand and areas where additional parking is needed.

Seaport Projects

Some members of the CFAC felt that one of the best strategies to ensure that California's seaports continue to be accessible and competitive would be by maintaining the channel depths. The CFAC members also mentioned providing more funding for wharfs, fendering, dredging, and wider turning basins to handle larger ships and the effects of climate change. Other important freight projects are port-rail projects that aid to shift truck trips from off-dock railyards to on-dock railyards.

Additionally, interagency efforts could find a way to streamline infrastructure projects that do not pose negative impacts on communities. The State should consider alternative growth projections that assess not only impacts of tariffs and trading partners, but also technological advancements. The push for ZEV and electrification entails a need for significant private investment. But this may not be supported by private companies due to uncertainty over future regulations, long lead times, and business conditions in California which discourages capital investment. Incentives or funding from the public sector, or a public-private partnership may be necessary to implement California's vision for port projects.

Railroad Projects

The Class I railroads have built a strong relationship with Caltrans and other agencies on rail transportation within California. With the development of the California High-Speed Rail, additional freight capacity may be available as passenger rail shifts to dedicated passenger tracks, allowing for a higher volume of freight to move along non-passenger tracks. Reducing capital project costs, barriers, and delays that can increase time and decrease reliability for deliveries of goods as well as working with public groups and private enterprises to find common ground for projects that have merit in increasing competitiveness without sacrificing public good.

Native American and Tribal Groups Freight Connections

California is home to more than 100 federally recognized Native American tribes and approximately 80 informal tribes and individuals. Many of the federally recognized tribes own tribal lands officially designated as reservations or Rancherias. As with all communities, Native American communities rely on the freight system to obtain goods and services and to export products. This chapter presents background information and connections between tribal lands and peoples and the California freight system.

Tribal Lands and Proximity to Freight Facilities

Great expanses of California are regarded as Native American ancestral lands, which contain important locations of historical significance, including sacred burial grounds, traditional foods, materials, and cultural resources. Currently, federally recognized tribal land is fractioned throughout the state, but is most heavily concentrated in areas south and east of Los Angeles County and the Northern California Coast. San Diego County is home to 17 Tribal governments—the most in one county in the contiguous U.S. There are 16 federally recognized tribes located in Riverside and San Bernardino counties that are within the SCAG metropolitan planning region.

Not all tribes have reservations or rancherias. In general, most tribal lands are located in rural areas.

The SHS provides vital access and connectivity for tribal lands; however, given the rural location of most reservations and rancherias and the roadway geometric restrictions of some rural highways, some state highways and many local roads that provide access to tribal lands do not allow passage by full-size, fifty-three-foot truck trailers - the standard “big rig.” Having to divide large truckloads of goods into smaller trucks can add cost and time to tribal shipment deliveries, resulting in increased business and consumer prices. Terminal access routes and last-mile freight connections are vital to tribal governments engaging in economic development.

Many tribal lands are within proximity of or intersect with the California SHS. Of the federally recognized tribes in California, 100 of these have trust land within five miles of the SHS. Seventy-eight percent of the recognized tribes on tribal land are within two miles of the SHS, and 35 percent of the tribal governments have trust land that intersects with the SHS.

Improving freight infrastructure access between State Highway thoroughfares and local tribal service roads is crucial. The handful of existing programs dedicated to tribal governments for accessibility projects are listed in the Federal and State Recognized Tribes. Continued partnerships with tribes, Caltrans, and local agencies will play a key role in enabling the necessary access and economic development to help alleviate high unemployment in tribal areas.

In its comments to the USDOT regarding the proposed National Primary Freight Network, the CalSTA recommended that the federal freight planning guidance include roadway connections between trust lands and the federally designated freight network. Federal guidance regarding the designation of the rural and urban connectors has been issued. To be consistent with the pending federal designation process, Caltrans will engage in the designation of tribal freight connectors at the same time the rural and urban connectors are identified. In many cases, it is likely that the tribal and rural connectors will use the same routes.

As with many neighborhoods adjacent to any major truck route or rail line in North America, California tribes may also be negatively impacted by freight activity without benefitting from the movement of freight in their communities. However, through better consultation process, detrimental impacts may be avoided or mitigated.

Tribal Consultation Process and Guidance

As sovereign powers, the governments of federally recognized Tribes are entitled to consultation with the California State government on matters affecting their respective Tribal lands, cultural heritage sites, and other issues of significance to them as outlined through AB 52.¹ Caltrans Director’s Policy (DP-19), “Working with Native American Communities,” guides Caltrans’ relationship with tribes, requiring the Department to “recognize and respect important California Native American rights, sites, traditions, and practices.” Tribal consultation is a vital step in the transportation planning process.

As a part of the CFMP outreach efforts, Caltrans' staff participated in four "tribal listening sessions" in various locations within California and received input from 40 Native American tribes at those sessions. The listening sessions were organized to engage with tribal representatives and others regarding several major plans in development by Caltrans, including the CFMP. The tribal representatives provided invaluable insight into transportation needs and tribal consultation protocol. During these sessions, participants expressed the desire for earlier and more substantive consultation. Some stated that tribal consultation should be a more open process. Participants generally agreed that further work should also be done to create partnerships between tribes and regional agencies on funding and project development.

Caltrans shall work to improve the consultation process and build stronger partnerships with Native American communities. This consultation process will emphasize two-way collaboration, communication, education, and timely notice. Prior to the listening sessions, two representatives from the Native American community were invited to serve as members of the CFAC. In addition, Caltrans freight planning staff regularly participates in Native American Advisory Committee (NAAC) meetings.

To further engage regional partners, regional and State agencies should include Native American tribal transportation needs, including a freight project list, in Regional Transportation Plans (RTP) and other planning documents. Nearby planned projects should involve consultation in the form of input to the planned freight project (including railroad crossings, bridge rehabilitation, and roadway expansion) location and design to minimize negative tribal impacts. Although the consultation process adds steps to project planning and development, it can ultimately result in greater benefits by leveraging local knowledge. These benefits include, but are not limited to, preservation of cultural sites, greater community input and buy-in, transportation efficiency improvements, and expansion of multimodal transportation services for tribes. Consultation with tribes is therefore not only an obligation, but an asset to Caltrans' planning and project development efforts.

Freight Transportation Planning Activities for Tribal Needs

Statewide Tribal freight needs typically encompass project coordination and financial assistance with mutually beneficial transportation endeavors, such as roadway access, operations, maintenance, and safety. The Caltrans Native American Liaison Branch, created in 1999, serves as intermediaries between Tribal governments and other third parties to promote government-to-government relations regarding Tribal transportation needs. Early in its development, it was identified that there was no formal access to data on tribal transportation facilities in California. This information is critical for Tribal governments to determine current and long-range transportation needs, and to secure resources needed to improve them.

Over the past 20 years, several achievements within the branch include establishment of proper framework to access more funding for roadside safety improvements, roadway access, operations and maintenance facility needs. The first collaborative effort involved 77 Tribal participants to document new roads and bridge inventory data that were proposed for inclusion into the federal inventory. A second effort was completed in 2010 to develop a Statewide

Transportation Needs Assessment to determine Tribal employment conditions, issues and concerns. An ongoing outreach effort has been made to provide technical assistance to Tribal governments in California through several public outreach activities and workshops conducted between 2008 and 2018.

Even through the concerted efforts to improve access to funding, it was noted that the 108 federally recognized tribes in California only received 1.88 percent of the available Indian Reservations Roads (IRR) funds. As a result, several actions have been identified that are currently being drafted in the California Transportation Plan 2050, which combines efforts with the States' goals for sustainability, inclusion of multimodal facilities, such as bike and pedestrian access, as well as the ability to remain economically competitive, among others. In 2019, Caltrans began a special research study to develop a Tribal Transportation Safety Assessments that identify vehicular traffic, pedestrian, and rural safety needs supported by the California Strategic Highway Safety Plan (SHSP). This study is anticipated to be completed in 2021.

Tribal Transportation Planning is now a part of the Federal Statewide Transportation Improvement Program (FSTIP), involving the coordination of Metropolitan Planning Organizations (MPOs) to identify where investments are needed on or near reservations or rancherias. The outcomes of the study will improve the written documentation and data collection that may help Tribal governments pursue further ongoing transportation funding. The overall coordination effort may help elevate Tribal transportation and offer new opportunities for state, MPO, and Tribal governments to identify innovative partnership opportunities.

Once the Tribal Transportation Safety Assessments are completed, Caltrans staff will work with Tribal consultants, applying appropriate Tribal consultation customs, to promote innovative projects such as alternative fuel infrastructure funding, roadside rest area and truck parking facilities, economic partnership developments, and etcetera. The completed safety assessments may lead to future freight funding projects that comply with Federal and State requirements and employ trained Tribal members, thereby increasing the access, efficiency, and economic viability of the SHS adjacent to Native American Tribal reservations and rancherias.

Endnotes

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- ¹ “Assembly Bill No. 52.” *Bill Text - AB-52 Native Americans: California Environmental Quality Act.*,
https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201320140AB52.