
CHAPTER 1.2

STRENGTHS AND NEEDS

California's freight-related strengths and needs differ from those of other states by an order of magnitude. The vast scale of California and its lengthy coastline, the size and diversity of its economy, the extent and complexity of its multimodal freight transportation system, its strong regional and local planning and infrastructure funding capacities, its largest-in-the-nation population, and its geographic position on the Pacific Rim and border with Mexico all generate unique strengths and needs too numerous to list. However, there are overarching strengths and needs that summarize the whole. Ironically, many of the State's greatest strengths also create its greatest needs, such as the vastness of the State's freight system, which necessitates enormous investments in asset preservation and impact reductions.

For readers wanting a more detailed identification of the State's freight-related strengths and needs, in addition to the CFMP chapters that discuss specific topics called for by MAP-21 Guidance, the Appendices provide an extensive set of Fact Sheets and Freight Trends Analyses with in-depth information regarding each region of the State, the highest-volume freight-related airports and maritime facilities, and numerous individual freight topics. Many of the Appendices also contain links to referenced documents and public and private organizations that can provide more information.

STRENGTHS

Extent of Existing Multimodal Freight System

California has a wide range of freight modal options, redundancy of freight corridors, multiple choices for maritime and air cargo, two Class-1 railroads, an expansive value-added manufacturing capacity, and a strong logistics industry that boasts the country's largest concentration of warehousing and transloading facilities. The State is not reliant on one port or one corridor to engage in commerce with the rest of the nation or world. The facility choices and redundancy provided by this freight system are strengths for not only California, but also for the US as a whole. It provides opportunities through competition to keep shipping costs down and provides options when a facility's operations are halted due to inclement weather or other causes. For more detail, see Chapter 2.1.

Strong, Diverse Economy and Large Population Base

California has the eighth largest economy in the world. This strong economy is supported by the freight industry but in turn also supports the freight industry that serves the nation by providing an already substantial asset base and workforce that can be readily adapted to handle more cargo destined for other states or being exported from those states to other countries. As the nation's most populous state, California's consumer market supports a robust freight system that is well positioned to seek discretionary cargo being transported through California. The large economy and large population help to ensure continuous investments in California's multimodal transportation system. For more detail, see Chapter 3.2.

Regional Freight Plans

California's Metropolitan Planning Organizations (MPOs) and their smaller counterparts, Regional Transportation Planning Agencies (RTPAs), are highly effective in their transportation planning responsibilities. The largest MPOs already have, or are developing, regional freight plans that are far-reaching and well executed. The plans are developed in partnership with the freight industry and its many stakeholders. In some cases, multiple MPOs have joined together to create multiagency freight plans, as the eight MPOs in the San Joaquin Valley have done. These regional freight plans and their companion Regional Transportation Plans serve as the primary source for freight projects included within the CFMP. The strength of the regional freight plans, having been developed in a partnership process and vetted by a board of directors that is composed of local elected officials, strengthens their input to the CFMP and provides a multilevel freight planning process that provides detail and perspective not available in a state-level plan. In some instances the freight planning has been addressed at the sub-regional level as has been done very effectively by the Gateway Cities Council of Governments.

Innovative Achievements

ENVIRONMENTAL ACHIEVEMENTS

California has the most far-reaching, effective environmental policies and regulations in the country, if not the world, particularly related to transportation and more specifically, freight transportation. As detailed in Chapter 3.4, Community and Environmental Context, California has the cleanest, lowest-emissions freight system in the nation and continues to develop new approaches and technologies to further reduce environmental impacts from freight, particularly air and water quality impacts. These achievements are due to both regulation and voluntary industry actions. The state's freight industry is the national leader in utilizing low-emissions freight vehicles and is moving steadily toward creating a near-zero-emissions freight transportation sector. This reduction in impacts to communities and the environment is a noteworthy strength and one the state is building upon. As new, lower-polluting systems, fuels

and vehicles are developed and deployed, there is a companion effort to apply new methods and technologies to improving freight moving efficiencies to increase throughput while also reducing congestion and delay. California's freight industry is at the forefront of researching, developing, and implementing the new freight systems of the twenty-first century.

GMAP

The Goods Movement Action Plan (GMAP) was issued by the California Business, Transportation and Housing Agency (now the California State Transportation Agency, or CalSTA) and the California Environmental Protection Agency (CalEPA) in two phases in 2005 and 2007. It was a major milestone in statewide policy and planning for freight transportation, trade corridors, and related air quality issues.

A product of a transparent and inclusive process that involved a diverse group of stakeholders, the GMAP provided analysis, strategies, and recommendations to address California's goods movement needs for capacity expansion, improved efficiency, enhanced security, job creation, and the mitigation of public health, environmental, and community impacts. Similarly, the goals in the CFMP emphasize the importance of economic competitiveness, congestion relief, safety and security, the preservation of freight infrastructure, innovative technology, and addressing environmental and community impacts.

The GMAP focused on four goods movement priority regions and corridors in California – the Los Angeles/Inland Empire Region, the San Diego/Border Region, the Central Valley Region and the Bay Area Region – and identified solutions within these regions to reduce congestion and accommodate expansion of trade between California, the rest of the nation, and the world, while simultaneously preserving the environment.

The California Freight Mobility Plan expands upon the GMAP's regional approach to address freight needs of the entire state by focusing on specific corridors within each region and by strengthening the attention given to tribal, environmental, and community issues.

TCIF PROGRAM

In 2006, California voters passed a transportation bond that included \$2 billion for freight projects. The resulting Trade Corridors Improvement Fund (TCIF) Program has subsequently attracted a large amount of matching funds such that the current program has a total project cost of approximately \$7.2 billion. The processes and groups that were established to implement the TCIF program have been tremendously successful and serve as an excellent example of how to implement a large, multimodal freight program across a state while involving project sponsors and stakeholders at numerous public and private levels. Chapter 1.3 provides detail regarding the TCIF Program and links to related program websites.

TRANSPORTATION SALES TAX MEASURES

Many counties in California, primarily the large urban counties that, not coincidentally, have large freight transportation sectors, have implemented voter-approved transportation sales tax measures. These sales tax measures can be very difficult to pass because they require a two-thirds voter approval. Once passed, however, they generate transportation revenues that exceed the funding amounts of traditional State and federal sources. These counties, referred to as the “Self-Help Counties,” have formed a coalition to further their collective goals. While the vast majority of the funding generated by the sales taxes is used to fund passenger transportation projects and programs, the freight system often benefits as well. Some of the projects funded in the TCIF program, briefly discussed above, also received funding from transportation sales taxes. Voter willingness to support transportation projects through self-imposed sales taxes is a strength that provides the opportunity to leverage investment from a broader range of funding sources.

Multi-state collaboration

California is engaged in multistate efforts to collaboratively plan for, manage, rehabilitate, and operate key corridors, while aiding in identification of funding for capital and operational improvements throughout the corridors. California’s ability to work with other states allows it to plan and implement corridor management and operational strategies across state borders to effectively and efficiently move freight and passengers through key corridors on the Primary Freight Network. Collaborative efforts such as these will be essential in achieving the vision, goals and objectives contained in the CFMP.

Geographic Position

California’s location on the Pacific Coast enables it to have numerous deep water seaports and marine terminals, with several of the ports able to handle the largest vessels in existence. The Ports of San Pedro Bay can handle even larger ships that are being planned. While ports to the north of California have a shorter shipping distance and less travel time from ports in Asia, California’s larger and superior ground transportation system and more extensive warehousing, manufacturing, value-added services, and California’s access to more US markets puts the State’s ports and the rest of the State’s freight system in a strong competitive position. The complex, mountainous terrain of the Western US and the very low population densities of the region limit the number of highway and rail corridors connecting the West Coast to the rest of the nation. California is fortunate to have several of the highest capacity corridors, with some of them linking directly to major urban areas in other states (Phoenix, Las Vegas, Salt Lake City, Denver, and others). Owing to the very large consumer market and production capacity of California’s cities, international trade is drawn to California’s freight system to serve not just California but a substantial portion of the rest of the nation as well.

The juxtaposition of the Southern California Mega Region across the border from Mexico's Tijuana and Mexicali regions provides enormous opportunities for international commerce. As detailed in Chapter 3.7, Mexico is one of California's most important trade partners. Tijuana's location close to the Southern California freight system and the connecting Interstate and transcontinental railroad corridors provides access to the entire US.

NEEDS

FUNDING

The foundation strategy of the CFMP is to obtain substantial, predictable, long-term freight funding. Without a reliable funding source, freight projects have few options. They must compete for traditional passenger funding, potentially increasing costs for freight shipments, compete for very limited federal TIGER funding, wait for another State bond program, or just not get built. **Obtaining new, dedicated, permanent State and federal freight funding is the highest priority need identified by the CFMP.** The new funding needs to be applicable to all freight modes and to mitigation of impacts from the freight industry, including meeting air quality and greenhouse gas goals. In addition to new freight funding programs, California needs to continue to develop public-private partnerships to bolster available freight funding with leveraged private investment in the Primary Freight Network.

STRENGTHEN MULTI-AGENCY COORDINATION TO ACHIEVE AIR QUALITY AND OTHER STATEWIDE GOALS

Caltrans and the California State Transportation Agency (CalSTA) recognize the need to take a leadership position in transforming the State's transportation system to one that is more fiscally and environmentally sustainable. The State has a responsibility to *provide a safe, sustainable, integrated and efficient transportation system to enhance California's economy and livability* (Caltrans Mission Statement), a responsibility that is fully consistent with the CFMP vision.

This leadership role, however, is shared with others, such as the California Transportation Commission, the Governor's Office of Business and Economic Development, the Air Resources Board, and the California Energy Commission. Caltrans and CalSTA are working to bring all of our planning and modal program processes under a coordinated system to implement the types of projects that, while achieving Caltrans' and CFMP goals, will also achieve the State's broader goals for transportation, economic development, environmental health, and land use. This effort supports the "fix-it-first" priority for transportation resources, fosters job creation and economic growth, and strengthens the process of transforming the transportation system

to better align transportation policies with sustainability and environmental stewardship policies. It can extend beyond State projects; it can also assist regional and local transportation agencies with decision-making.

The California Freight Mobility Plan is an opportunity to begin a broader, systemwide approach to transportation, land use, and technology coordination that is tied to selecting and implementing specific programs and projects. We are taking the opportunity in the CFMP to begin the discussion and will continue to develop and support parallel efforts in companion plans, such as the California Transportation Plan, Interregional Transportation Strategic Plan, and California State Rail Plan.

The CFMP and ARB Sustainable Freight Strategy share common environmental stewardship and sustainability goals. The January 2014 resolution of the Strategy directed ARB staff to develop and provide criteria for specific recommendations that will achieve a sustainable freight system and meet climate, air quality, and GHG goals. Broad principles and criteria will be developed for new and expanded freight facilities that will be used as tool and decision maker for at risk communities near freight hubs.

NEEDED GUIDANCE

The development of guidance is needed in the near term (one to three years) to ensure that transportation, environmental, and land use projects are implemented in a manner consistent with Caltrans' mission, the vision of the CFMP and aligned with the State's broader environmental sustainability goals. In accordance with concepts outlined in Sustainable Freight Strategy public engagement materials, Caltrans will collaborate with ARB and other partners in developing a guidance document that would address a wide range of freight issues which may include:

- Principles and criteria for assessing the environmental and sustainability implications of transportation infrastructure projects earlier in the transportation planning process;
- Identifying and implementing near-term actions to reduce localized risk in communities near freight facilities (e.g., warehouses and distribution centers);
- Provision of safe, secure truck parking in urban and rural areas;
- Linking the region's complete streets design concept to freight movement;
- Developing truck-only facilities, such as truck lanes, that also consider community exposure to air pollution;
- Shifting the movement of freight to more efficient and less-polluting modes; and

- Industry-wide use of low-emissions vehicles; and supporting further development of advanced technologies.

This type of information would be made available to project sponsors, lead agencies, the freight industry and the public. Stakeholder involvement and public outreach will be essential throughout the development of the guidance and its use in transportation planning and programming processes. To be successful, ***it is essential that the freight industry itself be fully engaged in these discussions***. This discussion will also need to be raised at related workgroup committees and agencies beyond the California Freight Advisory Committee (California Federal Programming Group, Statewide Conformity Working Group, California Transportation Commission, Native American Advisory Council, Rural Counties Task Force, Regional Transportation Planning Agencies, Self-Help Counties, Regional Boards, California Air Pollution Control Officers' Association, California State Association of Counties, California Councils of Government, League of Cities, Strategic Growth Council, Governor's Office of Planning and Research, Governor's Office of Business and Economic Development, Housing and Community Development, and advocacy groups).

DEDICATED TRUCK FACILITIES

With very few exceptions, trucks utilize the same local roads, state highways, and Interstates used by automotive travelers. Delay due to urban congestion adds costs to trucking, increases the emission of harmful pollutants and GHG, increases collision potential, and generally reduces the economic competitiveness of congested regions. While substantial investments are being made to shift auto travelers to transit, passenger rail, and other modes, the needs for dedicated truck facilities is essentially totally unmet, with the exception of the proposed I-710 project, small demonstration projects that are under development, and truck climbing lanes for steep ascents. Dedicated truck lanes are needed for the highest-volume truck routes along strategically selected corridors.

IDENTIFICATION OF HIGHEST PRIORITY FREIGHT CORRIDORS AND FACILITIES FOR INVESTMENT

The \$138 billion in freight-related projects identified in the Freight Project List (Appendix A), far exceeds any reasonable expectation of fundability. Given the enormity of the state's freight system and the relatively small amount of potential freight funding, a subset of the Freight Project List is needed to identify actionable projects over a 10-year period that address the state's most critical freight needs. The very successful Trade Corridors Improvement Fund (TCIF) Program, detailed in Chapter 1.3, has a total cost of approximately \$7.2 billion dollars for 81 projects. This provides a perspective of what may be viewed as reasonably achievable by a new freight funding program. The tiered freight corridors included in this Plan align well with the TCIF investment corridors. Building on the success of the TCIF Program, this Plan also prioritizes particular corridors for higher investment priority. Projects that respond to the goals and

objectives of this Plan and are located along high priority corridors or at the gateways, hubs and last-mile connectors that are served by those corridors should be prioritized for funding when freight funding becomes available.

MODE SHIFT

There have been numerous calls for mode shift from less efficient to more efficient and lower polluting modes, with the particular intent of reducing truck traffic in congested urban areas. A challenge is that the majority of the truck hauls occur within the urbanized region or connect the region to nearby communities that host warehousing, transloading, and distribution facilities. Such short trips generally are not a financially viable market for rail shipments, and many of the urban rail corridors are already congested with existing freight and passenger services sharing the same track. Adding a substantial number of additional freight rail trains and tracks to accommodate short-distance service may not be practical. **There is a need to explore a new mode of transport, one that does not use traditional highways or rail lines for intra-urban trips, to minimize short haul truck trips, increase efficiency, and reduce transportation related pollutants in urban areas.**

MAINTAIN COMPETITIVE EDGE

California's facilitation of the transport of approximately 40 percent of the nation's containerized cargo presents a tantalizing target for other states and countries. With the unparalleled size of the California freight sector, competitors don't need to redirect a substantial portion of California's discretionary freight market to make a substantial economic impact on their own freight sectors. However, California's competition is extensive, with competing ports on the West Coast of Canada, Washington, Oregon, and Mexico, and the soon-to-be -widened Panama Canal providing enhanced access to ports along the Gulf and Atlantic Coasts. Small or moderate freight market share losses to many of these competitors will coalesce into a significant loss for California. While California will always have a substantial freight sector due to its large population, strong economy, and proximity to major urban areas in neighboring states, the discretionary portion of the freight sector, the portion that supports thousands of additional well-paying jobs, does not have to use California's freight system.

MAINTAIN AND PRESERVE THE FREIGHT SYSTEM

The sheer magnitude of California's freight system necessitates an enormous investment in maintenance and preservation. While the Class-1 railroads, seaports, and airports do an admirable job of maintaining and preserving their facilities, highway and local road facilities that support both passenger and freight transportation, especially those handling the highest volumes of truck traffic, are in vital need of additional funding for maintenance and preservation.

CAPACITY EXPANSION

Projected freight volumes for California will increase substantially in the coming years. Many components of the current freight system are already stretched to meet demand, and increased freight volumes may exceed the capacity of some components. Strategic investment is needed to expand the capacity of the State's seaports, landside operations at the highest-volume air cargo airports, rail lines, intermodal facilities, truck facilities, and others. Specific expansion needs are identified in the freight sections of Regional Transportation Plans and facility-specific plans, such as Port Plans.

CLIMATE CHANGE PLANNING

While sea level rise and climate change are globally important, they are particularly challenging in the long term for California's freight industry and for all other states with coastal freight facilities. The State's numerous seaports and maritime facilities support the economy, but they are also a potential liability as the sea level rises and inundates critical facilities from seaports to airports, rail lines, highways, and the electricity generating and distribution facilities expected to support a near-zero-emissions freight sector. **California needs a sea-level-rise plan addressing the freight industry that is developed in coordination with the freight industry, government agencies, and communities.**

EDUCATION

California faces a potential gap between demand for freight services and the availability of a qualified workforce. While a variety of training and certification programs are currently offered, there is a great need for proactive workforce development in the freight sector. The State would greatly benefit from a comprehensive educational strategy to provide specialized programs in transportation planning and freight and supply chain management across all modes.

FIGURE 8. INTERSTATE 80 – WINTER MAINTENANCE



SOURCE: CALTRANS