









Prepared by FEHR / PEERS

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October 2019

Transportation Baseline Report

Contra Costa County General Plan

Prepared for:



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Introduction

This baseline report presents a summary of the existing transportation conditions in the planning area of the Contra Costa County General Plan. Contra Costa County is very diverse, encompassing a wide range of communities served by an extensive and varied transportation network. Contra Costa County is home to dense urban neighborhoods served by frequent local and express bus services, thriving suburbs connected to the employment centers of the Bay Area by Bay Area Rapid Transit (BART) and major freeways, and rural and agricultural communities connected by a network of rural highways and roads.

Purpose and Scope

This report functions as the existing conditions report for the forthcoming Transportation and Circulation Element of the Contra Costa County General Plan, which will present policies and implementation measures to maintain and improve the county's transportation network. The policies in the Transportation and Circulation Element will help to expand transportation choices, improve safety, and address environmental and community quality of life effects of the transportation system. This report describes the existing conditions of the transportation system and identifies planning considerations and challenges to be addressed in the General Plan Update process.

Context and Background

This section provides an overview of the current demographic, regulatory, and policy context surrounding the existing transportation system in Contra Costa County and uses Census data to describe the travel behavior of local residents and workers. The local context of Contra Costa County, including the locations of incorporated cities and unincorporated communities, is shown in **Figure 1**.

Contra Costa County is made up of 19 incorporated cities (Antioch, Brentwood, Clayton, Concord, Danville, El Cerrito, Hercules, Lafayette, Martinez, Moraga, Oakley, Orinda, Pinole, Pittsburg, Pleasant Hill, Richmond, San Pablo, San Ramon, and Walnut Creek) along with a number of unincorporated communities such as Kensington, North Richmond, Pacheco, Bay Point, Discovery Bay, Bethel Island, Byron, and Alamo, among others. Approximately 172,080 people live in unincorporated Contra Costa County, out of a total countywide population of about 1.1 million. The County General Plan defines policies and objectives for the unincorporated areas; each incorporated city has its own General Plan. Because of the interconnected and interrelated nature of transportation facilities, this baseline report often describes elements of the transportation system that are located in or affect both the unincorporated and incorporated areas of Contra Costa County.

Institutional Context

Transportation through and within Contra Costa County consists of a network of facilities across multiple travel modes, functions, and capacities. Many agencies oversee the planning, development, operation, and funding of these facilities. The US Department of Transportation (USDOT) ensures the safety and efficiency of the nation's interstate freeway system, airports, rail lines, and ports. The California Department of Transportation (Caltrans) manages the State Transportation Network, made up of more than 50,000 statewide lane-miles of freeways, highways, and designated arterials.

The Contra Costa Transportation Authority (CCTA) administers the county's transportation sales tax program and is the designated Congestion Management Agency (CMA) for Contra Costa County. CCTA also develops the long-range Countywide Transportation Plan (CTP). The CTP is combined with plans from other Bay Area counties as a foundation for the Regional Transportation Plan (RTP) and Sustainable Communities Strategy (SCS), which is prepared and adopted by the Bay Area's metropolitan planning organization, the Metropolitan Transportation Commission (MTC).



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019

ENVISION CONTRA COSTA 2040 Figure 1 County Context and Unincorporated Areas At the local level, the Contra Costa County Departments of Public Works and Conservation and Development are responsible for overseeing the planning, design, construction, and maintenance of transportation facilities in the unincorporated areas including roadway, bicycle, pedestrian, and transit facilities. Several agencies operate transit services that use County facilities; these are described in more detail in the section on Public Transit.

Key Planning Documents

The Contra Costa County General Plan will establish a vision for how the unincorporated areas of the county develop over time, building on the policies and programs set forth by existing countywide documents. The following documents (listed in alphabetical order) are key to the development of the Transportation Element and understanding the existing conditions of the transportation system in Contra Costa County.

2017 Countywide Comprehensive Transportation Plan

The 2017 Countywide Comprehensive Transportation Plan (CTP) was adopted by CCTA in September 2017, and functions as a framework for transportation investments for projects spanning ten and 20 years. It builds upon the foundation established with the half-cent countywide transportation sales tax that has been in place in Contra Costa since Measure C was approved in 1988, followed by an updated Measure J approved in 2004. The CTP covers incorporated and unincorporated communities. It takes a broad view of the county and provides direction for all local transportation systems while aiming to strengthen land use and transportation decisions and strategies.

Part of this effort also includes updating the Action Plans for Routes of Regional Significance for each subregion of the county. As part of Measures C and J, and in recognition of Contra Costa's diverse transportation context, the county is divided into four Regional Transportation Planning Committees (RTPCs): West County, Central County, East County, and Southwest Area. Each RTPC defines a set of Routes of Regional Significance that function as the primary connections between and through communities countywide, and develops an Action Plan to establish specific measurable objectives for those routes. (Note that the Southwest Area RTPC contributes to two Action Plans, one for the Lamorinda area and the other for the Tri-Valley area that also includes participation from the Alameda County jurisdictions of Dublin, Pleasanton and Livermore.)

Accessible Transportation in Contra Costa County

In 2017, the Contra Costa County Board of Supervisors approved the Accessible Transportation in Contra Costa County paper, which documents efforts undertaken to improve transit service for seniors and persons

with disabilities in the context of the CTP update and Measure X (2016) TEP development. Due to the County's unique, countywide multi-disciplinary responsibilities, which include public health, staff and the Board have led efforts to improve these types of services. The paper outlines the history of efforts to improve accessibility, barriers to progress, and next steps. It covers countywide issues in both incorporated and unincorporated areas.

Community-Based Transportation Plans

Community-Based Transportation Plans (CBTPs) are sponsored by MTC and intended to improve mobility options for low-income and underserved communities. There are two CBTPs that include unincorporated areas of Contra Costa County: one for the Richmond area that was completed in 2004, and another for the Pittsburg-Bay Point area that was completed in 2007. Each plan was developed with key stakeholders, transportation service providers, and community members to develop actions toward improving all types of transportation, increasing access to services, improving local quality of life, providing environmental benefits, and adding to the sense of community in the area. Both CBTPs are in the process of being updated.

Complete Streets Policy of Contra Costa County

The Complete Streets Policy of Contra Costa County was adopted by the Contra Costa County Board of Supervisors in 2016. It includes a list of complete streets principles and implementation guidelines. The policy focuses on context-sensitive planning, the need to consider user diversity, and a holistic approach of expecting all departments and all projects to include a Complete Streets focus. The 2016 policy complements and updates the 2008 Complete Streets General Plan Amendment that was adopted just prior to the passage of AB 1358 (2008), the California Complete Streets Act. Consistent with AB 1358, the County's current General Plan update will result in Complete Streets policies being a more integral component of the Circulation Element as opposed to the existing policy patchwork, the 2008 amendment and 2016 resolution.

Contra Costa Countywide Bicycle and Pedestrian Plan

The Contra Costa Countywide Bicycle and Pedestrian Plan (CBPP) was initially produced in 2003 and last updated in 2018 by CCTA. The County relies on this document as its own plan rather than developing and adopting a separate plan, as some other jurisdictions choose to do. The CBPP covers the entire county, including both incorporated and unincorporated areas. It is built upon the CTP, using the strategies and policies of that plan to establish bicycle-specific goals and identify actions the CCTA can take to accomplish them. The plan identifies a network of key low-stress connections that should be implemented to allow

people of all ages and abilities to connect across the county on a bicycle. The document also identifies programs and educational guidelines that encourage a greater shift toward bicycle usage.

Contra Costa County Climate Action Plan

The Contra Costa County Climate Action Plan (CAP) was adopted in 2015 and identifies reduction targets for greenhouse gas emissions. The CAP relies on voluntary measures for existing and new development and includes some mandatory measures when required by State mandates.

Airport Land Use Compatibility Plan

Contra Costa County has two public airports: Buchanan Field in Concord and Byron Airport. The Airport Land Use Compatibility Plan (ALUCP), developed by the Contra Costa County Airport Land Use Commission in 2000, aims to promote compatibility between airports in the county and the land adjacent to them. Considerations of compatibility are of particular importance as the surrounding lands are within multiple jurisdictions. The ALUCP is used as a tool for reviewing local development proposals and sets criteria applicable to local agencies when preparing or amending land use plans. Some elements of the plan also apply to countywide development actions, such as the construction of tall antennas, which could have aviation implications.

Plan Bay Area 2040

Plan Bay Area is the current regional transportation plan and sustainable communities strategy (RTP/SCS) for the nine-county Bay Area. It was developed by MTC and the Association of Bay Area Governments (ABAG) and adopted in September 2017. It provides a forecasting of transportation needs through 2040, focuses on the unique and diverse character of communities across the region, and considers the challenges of future population and employment growth and the related adaptations needed. The policies and investments called out in this plan strive to maintain the existing transportation network while supporting a changing region and an emphasis on reducing emissions to achieve climate change goals. The plan also emphasizes a "focused growth" land use scenario by promoting compact, mixed-use neighborhoods located near transit, with expansion projects focused on improving efficiency and modernization of facilities. In parallel with the focused growth strategy, the Plan includes conservation areas that are "regionally significant with broad support for long term protection."

Specific Plans

A specific plan is a specialized set of standards for development and growth that serves to implement and expand upon the General Plan guidance for a given area. Specific plans typically refine and elaborate upon



the General Plan policies applicable to a certain area and can serve to regulate land use in that area. There are currently eleven specific plans within the unincorporated County, including:

- Alhambra Valley
- Dougherty Valley
- El Sobrante
- Pleasant Hill BART/Contra Costa Centre
- Montalvin Manor
- North Gate
- North Richmond
- Pittsburg Bay Point BART Station Area
- Rodeo
- Shell Ridge
- Rodeo

Commute Travel Trends

An important element of how the transportation system functions is understanding how local residents travel to work. The mode of transportation that workers choose to commute to work tends to be associated with the relative locations of homes and jobs, and the availability of different modal choices. The US Census Bureau, through its American Community Survey, asks respondents for information about their journey to work; the most recent information available for Contra Costa County is summarized in **Table 1** and **Table 2.** Note that this data is for all of Contra Costa County, not just the unincorporated areas.

As seen in **Table 1**, the mode choices of county residents remained relatively consistent between 2000 and 2016. Driving alone is the dominant commute mode, used by 68-70% of residents. Carpooling is used by 12-14% of local residents, and approximately 10% use public transit to get to work. Small numbers, 1 or 2% of the total, use bicycling, walking, or other means to commute. The proportion of residents who reported working from home increased from 4% to 6% over this time period. As seen in **Table 2**, current commute modes for the residents of Contra Costa County are quite similar to those for the Bay Area as a whole.

One element of the decision about which mode of travel to use is the availability of personal vehicles. **Table 3** shows vehicle availability reported by Contra Costa County residents in 2000 and 2016. Over that 16-year period, there was a modest decline in the proportion of households reporting having zero, one, or two vehicles available, and an increase in the proportion of households having three or more vehicles. In some locations this may reflect increasing incomes and ability to purchase vehicles, while in other locations it may reflect the effects of household overcrowding as multiple families combine to live in single units.

Table 4 and **Table 5** offer insights into the length and direction of travel for those who live or work in Contra Costa County. In **Table 4**, more than half of county residents who report being employed work somewhere within Contra Costa County. Of those who leave the county, by far the largest share (20%) work in Alameda County, and another 12% go to San Francisco. About 5% work in the Silicon Valley counties of San Mateo or Santa Clara. On the other hand, jobs located in Contra Costa County tend to be filled by local residents. As shown in **Table 5**, three-quarters of all employees with a workplace in the county also live in the county. Another 11% of local workers live in Alameda County, and 5% commute from Solano County.

The amount of time spent commuting to work is most influenced by the distance of the trip, as well as the mode of travel used. Commuters living in the county spend significantly more time getting to work than the average Bay Area resident. As shown in **Table 6**, almost one-quarter of county residents commute for more than one hour each way; for the Bay Area as a whole, only 15% of commuters report travel times of one hour or more. This issue is particularly acute for the subset of commuters who use transit; almost two-thirds of the county's transit commuters spend more than one hour getting to work.



Mode of Transportation	Percentage of Commuters				
Mode of Transportation	2000	2016			
Drive alone	70%	68%			
Carpool	14%	12%			
Public transportation	9%	10%			
Bicycle	0%	1%			
Walk	2%	2%			
Taxicab, motorcycle, or other means	1%	1%			
Work at home	4%	6%			

Table 1: Means of Transportation to Work for County Residents (2000 and 2016)

Source: US Census Bureau 2016 (2011-2015 American Community Survey, 5-year average), 2000, 2016.

Table 2: Means of Transportation to Work in Contra Costa County and theBay Area (2016)

Mada of Turner substimu	Percentage of Commuters				
Mode of Transportation	Contra Costa County	Bay Area Region			
Drive alone	68%	67%			
Carpool	12%	11%			
Public transit	10%	11%			
Bicycle	1%	1%			
Walk	2%	3%			
Taxicab, motorcycle, or other means	1%	1%			
Work at home	6%	6%			

Source: US Census Bureau 2016 (2011-2015 American Community Survey, 5-year average).

Table 3: Household Vehicle Availability in Contra Costa County

Number of Vehicles Available	2000	2016
No vehicle	6.5%	5.9%
1 vehicle	30.5%	28.1%
2 vehicles	40.9%	39.8%
3 vehicles	15.7%	17.5%
4 or more vehicles	6.4%	8.7%

Source: US Census Bureau 2000, 2016.

Residence Workplace		Number Commuting	Percent of Total			
Contra Costa County	Contra Costa County	283,631	57%			
Contra Costa County	Alameda County	100,160	20%			
Contra Costa County	San Francisco County	58,089	12%			
Contra Costa County	Santa Clara County	14,023	3%			
Contra Costa County	San Mateo County	11,201	2%			
Total Number of Contra Costa County Employed Residents						
Contra Costa County All Counties		495,757	100%			

Table 4: Top Five Employment Locations of County Residents (2016)

Source: US Census Bureau 2016 (2011-2015 American Community Survey, 5-year average). (Percentages will not total 100% because not all commute destinations are shown.)

Table 5: Top Five Residence Locations of County Workers (2016)

Residence	e Workplace Number Comr		Percent of Total		
Contra Costa County	Contra Costa County 283,631		76%		
Alameda County	Contra Costa County 41,010		11%		
Solano County	Contra Costa County	Contra Costa County 19,504 59			
San Joaquin County Contra Costa County		5,861	2%		
San Francisco County	Contra Costa County 4,116		1%		
Total Number of Contra Costa County Employees					
All Counties Contra Costa County		372,702	100%		

Source: US Census Bureau 2016 (2011-2015 American Community Survey, 5-year average). (Percentages will not total 100% because not all residence locations are shown.)

Table 6: Average Commute Time (2016)

Travel Time	Share of Commuters in Contra Costa County	Share of Commuters in Bay Area Region
Less than 15 minutes	18%	19%
15 to 29 minutes	26%	32%
30 to 44 minutes	20%	23%
45 to 59 minutes	12%	11%
60 to 89 minutes	ninutes 16% 11%	
90 or more minutes	8%	4%

Source: US Census Bureau 2016 (2011-2015 American Community Survey, 5-year average). MTC Vital Signs: <u>http://www.vitalsigns.mtc.ca.gov/commute-time</u>

Accessible Transportation

Creating access across the county for those of all ages and abilities is of key importance. The concept of accessible transportation can be interpreted in multiple ways, but for the purposes of countywide planning, the focus is specifically on those with disabilities and the elderly. Individuals in these populations, though differing in need, are often not well served by standard or traditional transportation networks and facilities. In order to serve these individuals, organizations throughout Contra Costa County currently provide the following:

- All public transit agencies provide ADA (Americans with Disabilities Act) paratransit services
- Some social service programs and non-profit organizations offer specialized transportation services for their clients, in some cases operating their own vehicle fleets
- Several cities operate shuttles for certain residents, particularly for seniors

According to the *Accessible Transportation in Contra Costa County* white paper prepared by County staff, there are multiple barriers to furthering accessibility in Contra Costa County, including a lack of centralized responsibility for accessible transportation services and increasing budget pressures for many transportation and social service agencies. The complexity of the system and the diversity of agencies and operators involved, combined with the wide range of needs among the user community, leads to challenges in providing services efficiently and effectively.

Existing Transportation Network

This section summarizes the existing transportation system in Contra Costa County, encompassing facilities for motorized vehicles, public transit, bicyclists, pedestrians, and goods movement.

Roadway Network

The roadway network in Contra Costa County consists of freeways, expressways, arterials, collectors, and local streets. Each is described below with the existing classification shown on **Figure 2**.

Functional Classifications

A hierarchy of roadways provides for vehicle travel within Contra Costa County. Freeways are high-speed facilities that move intercity or regional traffic, with access only at grade-separated interchanges. Expressways are controlled-access, moderate speed facilities, often with at-grade intersections, that serve intercity trips. Arterials are high-volume facilities that connect the regional roadway network to collectors and the local roadway network, while collector streets typically connect residential and local-serving commercial areas with the arterial system. It should be noted that these designations were established prior to the adoption of Complete Streets concepts, and that the environmental context surrounding each roadway will also have an effect on its function.

Freeways

The freeways in Contra Costa County are I-680, I-80, I-580, SR 4, SR 24, SR 242, and SR 160.

- I-680 functions as a central spine for Contra Costa County, passing through the entire length of
 the county from north to south. On the north end, I-680 passes over the Benicia Bridge and
 connects to Solano County. On the south end, the freeway continues southward through Alameda
 County and on to Santa Clara County. Most of Contra Costa County's job centers are located
 along or near I-680, including downtown Walnut Creek, the Contra Costa Centre/Pleasant Hill
 BART station area, and the Bishop Ranch Business Park. I-680 also serves as a primary commute
 route for county residents who work in the Tri-Valley portion of Alameda County or in Silicon
 Valley. Major current and upcoming investments in the I-680 corridor are focused on improving
 traffic flow through the addition of HOV/Express Lanes, exploring opportunities for applying
 innovative technologies to better manage demand, and improving the I-680/SR 4 interchange.
- **I-80** passes through the northwest portion of Contra Costa County from the Alameda County boundary up to the Carquinez Bridge connecting to Solano County. I-80 is a major regional and interregional travel route and is one of the busiest corridors in the region, as the primary

connection from San Francisco to Sacramento and continuing on across the country to New York City. The I-80 corridor through western Contra Costa County has long been one of the most congested in the region, as it serves commuters headed to and from the employment centers of Oakland and San Francisco. Recent investments have established the I-80 Smart Corridor, using ramp metering and signal coordination, real-time traveler information, and variable speed advisories to help manage traffic on this critical corridor.

- **I-580** spans a small portion of western Contra Costa County; it separates from I-80 in the Alameda County city of Albany, then proceeds westward through Richmond to the Richmond-San Rafael Bridge, thereby connecting Contra Costa County to Marin County.
- **SR 4** is the primary east-west corridor across Contra Costa County. Starting at I-80 in western Contra Costa County, SR 4 proceeds eastward through the central part of the county and serves as the primary access route for eastern Contra Costa County, eventually connecting across the San Joaquin County boundary. The portion of SR 4 in eastern Contra Costa County was recently expanded, including HOV lanes and a BART extension to Antioch. Upcoming improvements along SR 4 will be focused in the central part of the county, including HOV lanes, targeted mixed-flow lane additions to address current bottlenecks, and improvements to the I-680/SR 4 interchange, as well as exploring options for an integrated corridor mobility program through the central and eastern parts of the county.
- **SR 24** is an east-west freeway in the central part of the county. It connects to Alameda County at the Caldecott Tunnel, and travels eastward to connect with I-680 in Walnut Creek.
- SR 242 is a short freeway segment connecting I-680 to SR 4 in Concord.
- **SR 160** is a very short freeway segment connecting SR 4 in Antioch to the Antioch Bridge and on to Sacramento County.

Given Contra Costa County's central location and the presence of several major interregional corridors within the county boundaries, it is not surprising that county drivers experience significant levels of traffic congestion and delay. MTC regularly tracks the most congested commute routes in the region; in their most recent analysis of 2017 data, three of the ten most congested commute corridors in the Bay Area were found in Contra Costa County:

#2: I-80 westbound in the morning from Hercules to the Bay Bridge

#5: SR 4 eastbound in the afternoon between Martinez and Concord

#10: I-680 northbound in the afternoon from Danville to Walnut Creek



Of these three corridors, eastbound SR 4 from Martinez to Concord has experienced the most dramatic change; it did not even make the top ten in 2015, but by 2017 was ranked at #5, reflecting the effects of increased residential development in eastern Contra Costa County and greater levels of commuting through central and western portions of the county.

Expressways

The current Contra Costa County General Plan defines expressways as controlled-access, moderate speed roadways serving intercity or intercounty trips. Expressways often have at-grade intersections and typically do not allow direct access to abutting parcels. Some of the roads designated as expressways in the current General Plan include Richmond Parkway, Kirker Pass Road, Taylor Boulevard, and Vasco Road.

Arterials

The primary function of arterial streets is to move traffic relatively long distances and connect freeways to local-serving street networks. Limited access is provided to abutting parcels in many cases. Arterials typically operate at relatively high speeds and can serve between 10,000 and 40,000 vehicles per day; minor arterials may carry fewer than 10,000 vehicles per day. Most intersections along arterials are signalized, often with a coordinated and interconnected signal system. Some of the primary arterials in Contra Costa include San Pablo Avenue, San Pablo Dam Road, Danville Boulevard/San Ramon Valley Boulevard, Camino Tassajara, and Byron Highway. Further information about arterials that are designated as Routes of Regional Significance is presented in the next section.

Collectors

Collector streets often serve as principal traffic arteries within residential and commercial areas, and connect arterial streets to the local street network. These streets may carry up to 10,000 vehicles per day, though many carry less. Collectors are often important segments of bikeway networks.

Local Roads

Local roads provide circulation within neighborhoods and between adjacent land uses. They are typically low-speed, low-volume streets with design features that discourage through traffic in order to be more compatible with residential needs.



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019



Figure 2 Roadway Functional Classifications

Congestion Management Program and Routes of Regional Significance

CCTA serves as the Congestion Management Agency for Contra Costa County, and as such it prepares a Congestion Management Program (CMP) every two years. The CMP outlines strategies for managing the performance of the regional transportation system within the county. By law, the CMP contains:

- Traffic level-of-service standards for State highways and principal arterials
- Multimodal performance measures to evaluate the current and future system
- A seven-year capital program of projects to maintain or improve the performance of the system or mitigate regional impacts of land use projects
- A program to analyze the impacts of land use decisions
- A travel demand element that promotes transportation alternatives to the single-occupant vehicle

In addition to the CMP, each of the RTPCs within Contra Costa County maintains an Action Plan for Routes of Regional Significance, which establishes quantitative service objectives by which to gauge progress of the transportation system and assess impacts of land use decisions. Each Action Plan identifies a system of Regional Routes, which are focused on the freeways, arterials, and other facilities that provide the main connections between local communities and the surrounding areas. The network of Routes of Regional Significance is shown in **Figure 3**.



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019



Figure 3 Routes of Regional Significance

Existing Volumes

Traffic data was collected at approximately 40 roadway segments in unincorporated Contra Costa County in January/February 2019 to better understand the usage of the roads and their current function. The peak hour level of service (LOS) was calculated as one metric of roadway operations. LOS is a qualitative description of traffic flow based on quantitative factors such as speed, travel time, delay, and freedom to maneuver. Six levels of service are defined, ranging from LOS A (free-flow conditions) to LOS F (overcapacity conditions). LOS E corresponds to operations "at capacity." It should be noted that the level of service analysis does not capture the mobility experience of roadway users other than vehicle drivers. As part of the General Plan Update process, the County may consider policies related to measuring the performance of other travel modes.

Table 7, **Table 8**, and **Table 9** below outline the methods used and the LOS results. As shown, the PM peak hour LOS on most of the roadway segments is LOS C, with a few operating at LOS D and two at LOS E. The magnitude of traffic volumes carried by each road varies substantially depending on its location and function. Many of these roads carry less than 500 vehicles during the peak hour, whereas others serve several times that number; this reflects the wide variation that exists among the communities that make up unincorporated Contra Costa County. Some of the roads are located along major commute routes and can experience distinct peaks in demand during morning and afternoon commute periods, while others have relatively stable levels of usage throughout the day. The current Contra Costa County General Plan defines a standard for peak hour conditions at intersections, with different thresholds applied depending on the land use context.

Facility Type	А	В	С	D	E
2-Lane Arterial	-	-	970	1,760	1,870
2-Lane Freeway + Auxiliary Lane ¹	1,410	2,550	3,640	4,490	5,040
2-Lane Freeway	1,110	2,010	2,880	3,570	4,010
3-Lane Freeway + Auxiliary Lane ¹	2,010	3,640	5,180	6,350	7,100
3-Lane Freeway ¹	1,700	3,080	4,400	5,410	6,060
4-Lane Arterial, Divided	-	-	1,920	3,540	3,740
4-Lane Arterial, Undivided	-	-	1,750	2,740	2,890
4-Lane Freeway ¹	2,320	4,200	5,950	7,280	8,140
4-Lane, Multilane Highway ¹	1,070	1,760	2,530	3,280	3,650
6-Lane Arterial, Divided	-	-	2,710	5,320	5,600
8-Lane Arterial, Divided	-	-	3,720	7,110	7,470
Major 2-Lane Highway	120	290	790	1,600	2,050
Minor 2-Lane Highway	90	200	680	1,410	1,740

Table 7: Peak Hour Capacity Thresholds for Levels of Service

Note:

1. LOS capacity threshold for one direction of travel. Source: *Highway Capacity Manual*, 2000. Fehr & Peers, 2019.

Street	Street Name Endpoint A	Endpoint B	NB		SB		EB		WB	
Name			Vol	LOS	Vol	LOS	Vol	LOS	Vol	LOS
Richmond Pkwy	Parr Blvd	Pittsburg Ave	2,300	С	680	А				
Taylor Blvd	Twinview Pl	Reliez Valley Rd	1,620	В	560	A				
Kirker Pass Rd	Pheasant Dr	Clearbrook Dr					1,270	В	420	А
Vasco Rd	S/O Camino Diablo		1,430	В	380	A				

Table 8:	PM Peak Hour	LOS on Contra	Costa Expressways	Measured	Directionally
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Table 9:	PM Peak Hour LOS on Contra Costa	Roadways,	Measured for I	3oth Directions
of Trave	1			

P

Street Name	Endpoint A	Endpoint B	Volume	LOS
Cummings Skyway	S/O Crockett Blvd		530	С
Parr Blvd	Richmond Pkwy	Goodrick Ave	380	С
Market Ave	Martin Dr	Rumrill Blvd	320	С
Goodrick Ave	Parr Blvd	Richmond Pkwy	680	С
Fred Jackson Way	Pittsburg Ave	Market Ave	940	С
Arlington Ave	Roberta Dr	County Line	970	D
San Pablo Dam Rd	El Portal Dr	Bear Creek Rd	1,670	E
Appian Way	Dalessi Ln	El Portal Dr	1,180	С
Valley View Rd	Appian Way	San Pablo Dam Rd	900	С
Castro Ranch Rd	Alhambra Valley Rd	San Pablo Dam Rd	830	С
Alhambra Valley Rd	Sheridan Ln	Marlin Ct	230	С
Bear Creek Rd	Alhambra Valley Rd	Happy Valley Rd	260	С
Reliez Valley Rd	Alhambra Ave	Withers Ave	440	С
San Pablo Ave	Pomona St	Parker Ave	220	С
San Pablo Ave	Golden Gate Park (Pinole)	Richmond Pkwy	2.060	D
Imhoff Dr	Blum Rd	Solano Way	1,220	D
Pacheco Blvd	Potter St	2nd Ave	810	С
Treat Blvd	Oak Rd	Bancroft Rd	4,000	D
Coggins Dr	Oak Rd	Las Juntas Way	480	С
Oak Rd	Coggins Dr	Treat Blvd	1,330	С
Olympic Blvd	Pleasant Hill Rd	I-680	1,830	E
Stone Valley Rd	Roundhill Rd	Stone Valley Oaks Dr	1,150	D
Danville Blvd	Iron Horse Trail/I-680	El Portal	1,380	D
Camino Tassajara Rd	Blackhawk Rd	County line	1,010	С
Marsh Creek Rd	Pine Ln	Bixler Rd	520	С
Deer Valley Rd	Deer Hill Ln	Marsh Creek Rd	160	С
Port Chicago Hwy	Main St	Bates Ave	130	С
Bailey Rd	Willow Pass Rd	I-680	1,120	С
Willow Pass Rd	SR 4	Bayview Ave	1,210	С
Byron Hwy	Camino Diablo	Clifton Court Rd	1,490	D
Bethel Island Rd	Dutch Slough Rd	Sandmouth Blvd	510	С
Sellers Ave	Sunset Rd	Balfour Rd	570	С

Table 9: P	PM Peak Hour LOS on Contra Costa	Roadways, Measured for Both Directions
of Travel		

Street Name	Endpoint A	Endpoint B	Volume	LOS
Walnut Blvd	Marsh Creek Rd	Vasco Rd	700	С
Delta Rd	Sellers Ave	Curlew Connex	390	С
Sunset Rd	E/O Sellers Ave		330	С
Balfour Rd	E/O Sellers Ave		480	С
Camino Diablo	Vasco Rd	Holway Dr	1,000	D
Evora Rd	W/O Driftwood Dr		620	С
Pittsburg Ave	Richmond Pkwy	Fred Jackson Way	190	В

Vehicle Collisions

Contra Costa is currently developing a Vision Zero/Safety Action Plan to address severe and fatal collisions on roadways in the unincorporated county. This plan will identify trends in collisions, key focus areas along a High Injury Network, and an action plan for addressing these issues. Vehicle, bicycle, and pedestrian collisions will be assessed in the process of developing this plan.

To understand existing conditions related to traffic safety in the unincorporated areas of Contra Costa County, TIMS (Traffic Injury Monitoring System) data from 2012 through 2016 were examined. The data includes information at the collision level, party level (all individuals involved in a collision), and victim level. Data for collisions, parties, and victims were cross-referenced to allow for a more thorough examination. This data is used in this report to show vehicle, bicycle, and pedestrian collisions in the unincorporated portions of the county. More detailed information about collision types and other relevant data such as time of day or weather conditions can be found in the Contra Costa County Vision Zero Plan (https://www.contracosta.ca.gov/7057/Vision-Zero).

Using the data analyzed in the Contra Costa County Vision Zero Plan, there were 1,358 injury or fatal collisions in unincorporated Contra Costa County in the five-year period from 2012 to 2016, including 165 that were classified as KSI (where at least one person was killed or severely injured). The total number of annual collisions increased somewhat during that time period, while the annual number of KSI collisions declined. The number of fatal collisions steadily dropped each year with the exception of a spike in 2015.

Figure 4 presents the vehicle collisions that occurred within the unincorporated areas of Contra Costa County in the 2012-2016 time period. Collisions that occurred on freeways were not included. As illustrated, collisions are most concentrated in the areas around Richmond/El Sobrante, in Bay Point, and around Pacheco and the unincorporated areas near Martinez.

Figure 4



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019

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Vehicle Collisions in Unincorporated Contra Costa County (2012-2016)



Transit Network

Numerous agencies provide bus and rail service within Contra Costa. This section outlines the major local transit agencies and the services provided.

Passenger Rail Service

Contra Costa passenger rail services are shown in Figure 5, including:

BART

Bay Area Rapid Transit (BART) operates two lines in Contra Costa County. The Richmond line serves the western part of the county, with stations at El Cerrito Plaza, El Cerrito del Norte, and Richmond (which offers an opportunity to transfer to Amtrak). Two BART routes use this line; the Richmond-San Francisco route connects to San Francisco and on to Daly City, while the Richmond-Warm Springs route connects to Fremont/Warm Springs. Both routes operate at 15-minute frequencies throughout most of the day.

The Antioch line serves central and eastern Contra Costa County, with stations at Orinda, Lafayette, Walnut Creek, Pleasant Hill/Contra Costa Centre, Concord, North Concord/Martinez, Pittsburg/Bay Point, Pittsburg Center, and Antioch, and connects to San Francisco and on to the San Francisco International Airport and Millbrae. The Antioch–San Francisco–Millbrae route is heavily utilized and operates at as little as 5-minute frequencies during peak commute hours, including some limited-service trains that operate only between Pleasant Hill and downtown San Francisco.

The two most utilized of the 12 BART stations in Contra Costa County are El Cerrito del Norte and Pleasant Hill/Contra Costa Centre. In 2015, El Cerrito del Norte averaged approximately 8,800 daily riders, and Pleasant Hill/Contra Costa Centre averaged about 7,400 daily riders. The mode of access to Contra Costa County BART stations varies widely depending on the station's local context. For example, none of the top ten BART stations system-wide for walking and biking are in Contra Costa County. Most of the stations in the county exist in a suburban and vehicle-friendly part of the region, and thus are more frequently accessed by personal vehicle. Some of the top stations system-wide for vehicle drop-offs are in Contra Costa County, including Pittsburg/Bay Point, Walnut Creek, Lafayette, and El Cerrito del Norte. North Concord/Martinez, Orinda, Walnut Creek, Concord, and Lafayette are among the top ten stations system-wide for driving and parking at the station. Vehicle parking at most local BART stations is heavily utilized, and the parking lots typically fill between 7:30 and 8:00 AM.

Amtrak

Amtrak service in Contra Costa County occurs along the San Joaquin line, which connects the Bay Area northeast to Sacramento and south to Bakersfield, and along the Capitol Corridor line, which connects southward to San Jose and northward to Sacramento. These services are locally administered by joint powers authorities (JPAs), the San Joaquin JPA and Capitol Corridor JPA, respectively. In California, Caltrans administered these Amtrak lines until transferring these duties to the local JPAs in 2015.

There are multiple departures daily on both lines. The San Joaquin line serves all three of the stops within Contra Costa: Richmond (allowing a transfer to BART), Martinez, and Antioch. The Capitol Corridor stops at Richmond and Martinez. Amtrak also provides access to further destinations, with the California Zephyr line connecting Martinez to Chicago, and the Coast Starlight line connecting Martinez to Los Angeles and Seattle.

Parking is available at all three Contra Costa County Amtrak stations, with pricing and hours varying by location. The Martinez station parking lot is owned by the City of Martinez and includes 136 regular spaces. The Richmond station parking lot is owned by BART and includes 20 regular spaces for Amtrak users. Parking at the Antioch station is provided in public parking lots owned by the City of Antioch, with 42 regular spaces in the nearest lot.

The City of Hercules is planning a regional intermodal transportation center, which would include a rail station, ferry terminal, and bus service. The City of Oakley has a planned station that would be served by the San Joaquin line.

Ferry Service

Ferry service for Contra Costa County began in January 2019, operating between the Richmond Ferry Terminal and the Ferry Building in San Francisco. There are four runs in the primary commute direction during peak commute hours, as well as limited reverse commute service.



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019



Figure 5 Passenger Rail and Ferry Services



Bus Service

Contra Costa County is served by several local and regional bus transit agencies, including:

AC Transit

AC Transit serves the western parts of the county (Richmond, El Cerrito, San Pablo, Pinole, El Sobrante, and Kensington) and most of Alameda County, with service to San Francisco and south to Santa Clara. San Pablo Avenue is the major spine for AC Transit bus service through western Contra Costa County, with important transfer hubs at the three local BART stations (El Cerrito Plaza, El Cerrito del Norte, and Richmond), as well as at Contra Costa College in San Pablo, Hilltop Mall in Richmond, and the Richmond Parkway Transit Center. East Bay Paratransit is operated by AC Transit and BART, and fulfills the ADA paratransit obligations for both agencies transporting riders within the AC Transit service area.

County Connection

County Connection, formally known as the Central Contra Costa Transit Authority, provides service throughout the central part of the county including Clayton, Concord, Danville, Lafayette, Martinez, Moraga, Orinda, Pleasant Hill, San Ramon, Walnut Creek, and nearby unincorporated areas. Important transfer hubs for County Connection buses are at the Walnut Creek and Concord BART stations, the Martinez Amtrak station, and the Diablo Valley College campus in Pleasant Hill. County Connection also operates several express bus routes serving the Bishop Ranch employment center in San Ramon, offering connections to BART stations in Walnut Creek and Dublin/Pleasanton as well as to the Pleasanton ACE commuter rail station. County Connection LINK is the paratransit service that operates on the same schedule and in the same area as the County Connection's buses.

Tri Delta Transit

Tri Delta Transit serves eastern Contra Costa County, including the cities of Antioch, Brentwood, Pittsburg, and Oakley, and the unincorporated area of Bay Point. Major transfer hubs for Tri Delta Transit are at the three local BART stations (Pittsburg/Bay Point, Pittsburg Center, and Antioch), as well as at Los Medanos College in Pittsburg and the downtown Brentwood park-n-ride. Tri Delta Transit's Dial-a-Ride service offers ADA paratransit within the same service area.

WestCAT

WestCAT serves the far western communities of Richmond, Pinole, and Hercules, as well as nearby unincorporated communities such as Rodeo and Crockett. Important transfer hubs for WestCAT are at the Hilltop Mall in Richmond, the Richmond Parkway Transit Center, and the Hercules Transit Center. Express buses extend to the El Cerrito del Norte BART station, and WestCAT also operates one regional express bus

(LYNX) from the Hercules Transit Center to San Francisco. WestCAT operates a dial-a-ride service, both for ADA paratransit customers and for the general public in some of the more rural parts of the service area.

Additional bus operators including SolTrans, Golden Gate Transit, Livermore Amador Valley Transit (also known as Tri-Valley Wheels), and Napa VINE operate primarily in other parts of the Bay Area, but have express service connecting to BART stations in Contra Costa.

Emerging Transportation Technologies

New transportation technologies and services are beginning to emerge and evolve, and the pace of that change is likely to increase dramatically over the timeframe of the new General Plan. Real-time ride-hailing, especially through Transportation Network Companies (TNCs) such as Lyft and Uber, is readily available throughout most of Contra Costa County. While it is difficult to obtain detailed data about the number, duration, and location of TNC trips, it is clear through anecdotal observations that many local residents are using TNC services, particularly for first/last mile connections to BART stations and other major transit hubs.

Other forms of shared transportation services are also gaining headway in the area. For example, while Contra Costa County is not yet served by the Bay Area bikeshare system, some of the local employment centers, such as Shadelands in Walnut Creek and Bishop Ranch in San Ramon, have established their own bikeshare programs to encourage tenants to use modes of transportation other than the private automobile. Micro-mobility services, such as dockless electric scooters, are operating in a number of cities around the Bay Area, and a variety of car-sharing programs are coming online that may change the economics of private vehicle ownership. Carpooling apps such as Scoop and Waze Carpool are enabling people to share rides more efficiently, and are being used to manage parking demand at some BART stations.

Bicycle Network

Contra Costa County's bicycle network provides some facilities to support cycling in the county. The network has substantial gaps, in particular relative to separated or low-stress facilities, that compromise the attractiveness of cycling as a viable transportation option. The County does not have its own bicycle plan and relies on CCTA's Countywide Bicycle and Pedestrian Plan. Facilities are maintained by local jurisdictions, park districts, and utility districts. This section outlines the existing bicycle network, including types of facilities, significant routes, and bicycle parking.



Bikeway Classifications

Caltrans' *Highway Design Manual* (Chapter 1000: Bikeway Planning and Design) and California Assembly Bill 1193 codify four distinct classifications of bikeways. Each bikeway class is intended to provide bicyclists with enhanced riding conditions. Different bikeway designs offer various levels of separation from traffic based on traffic volume and speed, among other factors.

Class I Bikeways (Bike Path)

Bike paths provide a completely separate right-of-way and are designated for the exclusive use of people riding bicycles and walking with minimal cross-traffic. In Contra Costa County, these types of paths are often located along creeks, canals, and former rail lines. Class I Bikeways often serve both recreational and commute trips.



Figure 6: Class I Bike Path

Source: Fehr & Peers, 2019

Class II Bikeway (Bike Lane)

Bike lanes provide designated street space for bicyclists, typically adjacent to the outer vehicle travel lanes. Bike lanes include special lane markings, pavement legends, and signage. Bike lanes may be enhanced with painted buffers between vehicle lanes and/or parking, and green paint at conflict zones (such as at driveways or intersections).

Figure 7: Class II Bike Lane



Source: Fehr & Peers, 2019

Class III Bikeway (Bike Route)

Bike routes provide enhanced mixed-traffic conditions for bicyclists through signage, striping, and/or traffic calming treatments, and provide continuity to a bikeway network. Bike routes are typically designated along gaps between bike trails or bike lanes, or along low-volume, low-speed streets. Bicycle boulevards provide further enhancements to bike routes by encouraging slow speeds and discouraging non-local vehicle traffic, often through the use of traffic calming features. Bicycle boulevards can also feature special wayfinding signage to nearby destinations or other bikeways.

Figure 8: Class III Bike Route



Source: Fehr & Peers, 2019

Class IV Bikeway (Separated Bikeway)

Separated bikeways, also referred to as cycle tracks or protected bikeways, are bikeways for the exclusive use of bicycles which are physically separated from vehicle traffic. Separated bikeways were adopted by



Caltrans in 2015. Types of separation may include, but are not limited to, grade separation, flexible posts, physical barriers, or on-street parking.





Existing Bicycle Network

Bikeways connect areas across the county and are supported by a wide variety of agencies and jurisdictions. Countywide bikeways help connect residents in a practical and healthy alternative to driving through both on- and off-road facilities. The "countywide bikeway network" (CBN) was established in the 2003 CBPP and has been expanded upon with the most recent CBPP update in 2018. This network is comprised of bikeway corridors connecting cities, towns, and major destinations throughout the county. Key bicycle corridors included in the CBN include:

- The Bay Trail
- San Pablo Avenue corridor
- Connections between western and central parts of the county (Cummings Skyway/Franklin Canyon/SR 4; Alhambra Valley Road; San Pablo Dam Road; Carquinez Scenic Drive)
- Connections to Alameda County (SR 24; Pinehurst Road; Canyon Road; Redwood Road)
- San Ramon Valley connections (Iron Horse Trail)
- Connections within the central part of the county (Olympic Boulevard; Mt. Diablo Boulevard; Geary Road; Main Street; Treat Boulevard; Monument Boulevard; Pleasant Hill Road; Contra Costa Boulevard; Taylor Boulevard; Ygnacio Valley Road; Concord Boulevard; Concord Avenue; Cowell Road; Turtle Creek Road)



- Connections between central and eastern parts of the county (Kirker Pass Road; Marsh Creek Road)
- Regional trails (Ohlone Greenway; Richmond Greenway; Delta de Anza Trail; American Discovery Trail, etc.)

A diagram of the existing bicycle facilities on the CBN is shown in Figure 10.

Bicycle Activity

Bicycling plays an important role in the county's transportation system; this form of transportation can improve the quality and vibrancy of the county's neighborhoods and business districts, extend the range and usefulness of public transit, reduce motor vehicle trips, and promote community health. The County has long supported alternatives to driving alone as an important goal, and encouraged walking and bicycling as a way to support its communities and environment.

Contra Costa County's diverse natural landscape both accommodates and presents obstacles to bicycling. While the county contains trail segments along the coast and inland, both on flatlands and through the area's many hills, the East Bay hills and northern Diablo Range can make intra-county bicycle travel challenging. However, the largest obstacle to bicycling is the incomplete network and lack of low-stress facilities. A complete network would leverage electric bikes (which are rapidly becoming widely available and accepted) to take advantage of the county's mild climate and access to major regional transit services.

As shown in the earlier section on Commute Travel Trends, only about 1% of local residents report using a bicycle to get to work. These modal split patterns are generally consistent across the county, though they do vary somewhat depending on location; residents of the western and central parts of the county are more likely to use active transportation modes than residents of other subregions. This bicycle mode split is one of the lowest of all the Bay Area counties.



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019



Figure 10 Bicycle Network

Bicycle Collisions

Figure 11 presents vehicle collisions with bicyclists that occurred within the unincorporated areas of Contra Costa County in the 2012-2016 time period. As shown in the figure, bicycle-involved collisions were clustered along Danville Boulevard in Alamo, San Pablo Dam Road in El Sobrante, and in Bay Point. As described in the earlier section on vehicular collisions, much more detail about traffic safety data and analysis can be found in the Contra Costa County Vision Zero Plan.

Level of Traffic Stress

The Contra Costa CBPP evaluated the Level of Traffic Stress (LTS) throughout Contra Costa County. LTS analysis seeks to measure how much stress is experienced by bicyclists due to characteristics of the roads and bicycle facilities. The LTS methodology was developed by the Mineta Transportation Institute in *Low Stress Bicycling and Network Connectivity* and is based on an application of Dutch bicycling standards and best practice research in bicycle transportation. LTS rankings range from 1 (very low stress; tolerable by all) to 4 (very high stress; tolerable to only a few).

As **Figure 12** indicates, Contra Costa County has several low stress backbone facilities along key Class I trails such as the Ohlone Greenway in the western part of the county, the Iron Horse Trail paralleling I-680, and the Delta de Anza Trail in the eastern area. However, many existing facilities on the 2018 CBN are located on high-speed arterials and are currently high stress (with LTS scores of 3 or 4).



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019

Figure 11

ENVISION CONTRA COSTA 2040

Bicycle Collisions in Unincorporated Contra Costa County (2012-2016)



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019



Figure 12 Level of Traffic Stress on Existing Bicycle Network

Pedestrian Network

Walking as a mode of transportation is generally confined to short local trips, generally within one city or town and not across countywide networks. On a countywide level such as in the CBPP, the focus is maintained at a high level, prioritizing investments in pedestrian-oriented districts at BART stations and along routes to transit, along routes to key activity centers, and near significant employment, shopping, or commercial centers. Recommended treatments include ADA accessible walkways, curb ramps, safer intersections, traffic calming when appropriate, direct pedestrian connections, and streetscape improvements.

Pedestrian Activity

Walkability is an important factor in the quality and vibrancy of the county's neighborhoods and business districts, and can contribute to increased usage of public transit and improved community health. The County has long supported alternatives to driving alone as an important goal, and encouraged walking and bicycling as a way to support its communities and environment.

As shown in the earlier section on Commute Travel Trends, only about 2% of local residents report walking to work. These modal split patterns are generally consistent across the county, though they do vary somewhat depending on location; residents of the western and central parts of the county are more likely to use active transportation modes than residents of other subregions.

Pedestrian Collisions

Figure 13 presents the collisions with pedestrians that occurred within the unincorporated areas of Contra Costa County in the 2012-2016 time period. As illustrated, pedestrian-involved collisions tend to be clustered in Bay Point, Pacheco, and El Sobrante, as well as near the Pleasant Hill/Contra Costa Centre BART station area. There are similarities between these hotspots and the locations of bicycle collisions described earlier. Again, much more detail about traffic safety data and analysis can be found in the Contra Costa County Vision Zero Plan.

Figure 13



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019



Pedestrian Collisions in Unincorporated Contra Costa County (2012-2016)

Goods Movement

Industry and commercial enterprises are served in Contra Costa County by a goods movement system that includes rail, highway and maritime networks, as well as two airports. The county's extensive waterfront offers many opportunities: there are several local marinas supporting recreational and commercial boating, and some of the major industrial facilities in the county rely on water transport for raw materials and finished products. Key elements of the local goods movement system are shown in **Figure 14**.

Rail

Rail transportation for goods movement in Contra Costa County is served by two Class I railroads, the Burlington Northern Santa Fe (BNSF) and Union Pacific Railroad (UP). These both follow the shore, connecting the Northern Waterfront to the rest of the county. The majority of the Bay Area's rail freight activity is concentrated in the East Bay, with primary facilities in Oakland and Richmond.

Truck

Highways serve multiple truck routes throughout Contra Costa County, and all of the freeways in the county are designated as state truck routes. SR 4 is the principal east-west transportation corridor serving the industrial areas of the Northern Waterfront. In the eastern part of the county, there is no direct connection from SR 4 to the I-580/I-205 corridor in Alameda and San Joaquin counties. A feasibility study was recently completed for a future SR 239 connecting SR 4 near Brentwood to the I-580/I-205 corridor near Tracy, which could offer an improved truck route for the eastern portion of the county.

Ports

The ports in Contra Costa County include the ports of Richmond, Rodeo, Crockett, Martinez, Port Chicago, and Pittsburg. These ports serve a vital economic purpose, connecting the county to markets regionally and farther afield. The Northern Waterfront's 55 miles of shoreline have deep water channels, marine terminals, proximity to rail, electric generating capacity, industrial land, and proximity to a critical mass of manufacturing companies and a skilled workforce. Given a recent decline in manufacturing employment in the area, and the region's comparative advantages combined with global trends, local policy-makers are seeing the need and potential for revitalizing the ports in coming years.

Air

Contra Costa County has two public airports: Buchanan Field in Concord and Byron Airport. Land uses are influenced by the airports roughly three miles from the airport runways, involving unincorporated areas of

the county as well as the jurisdiction of multiple cities. The Airport Land Use Commission (ALUC)'s Airport Land Use Compatibility Plan, discussed previously, includes policies and approaches for coordinating airport area land uses and development.

Buchanan Field is the older of the two airports, having been constructed in 1942. It is County-owned, occupies 495 acres, and controls aviation easements on about 50 acres. It is surrounded by urban development, which limits expansion. In 2017, Buchanan Field had 120,000 aircraft operations, serving general aviation, recreation, emergency response, law enforcement, cargo, and scheduled charter services.

Byron Airport was originally built in the 1950s as a small, privately owned facility, and was replaced in 1994 with a larger, County-owned facility. It occupies 1,307 acres, with less than half of the property currently containing aviation functions. The southern and western portions of the property are set aside for wildlife and habitat preservation. The Byron Airport serves general aviation functions and is a popular base for skydivers, gliders, and other recreational flight activities.

Planning Issues and Challenges

The great diversity of Contra Costa County's land use patterns, demographic characteristics, and transportation options means there are specific needs and challenges unique to each community. However, there are some key transportation planning issues and considerations that will affect the entire county and will be addressed through the General Plan update process, such as:

- Managing the travel demand from continued population and job growth in ways that are sensitive to community context.
- Expanding access to and the attractiveness of travel options that have fewer adverse environmental effects than single-occupant vehicles.
- Improving transportation options for seniors and persons with disabilities, particularly as the county's population continues to age.
- Anticipating the effects of, and managing the County's response to, emerging transportation technologies to ensure community goals and objectives continue to be prioritized.



Source: Contra Costa County, 2018; PlaceWorks, 2019; Fehr and Peers, 2019

ENVISION CONTRA COSTA 2040 Figure 14 Goods Movement Facilities



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