Lake County
Transit Development Plan - 2022 Update

Technical Memorandum 1 - Existing Conditions

Prepared for the

Lake Area Planning Council

LAKE APC
LAKE AREA PLANNING COUNCIL

August 10, 2022

Prepared by LSC Transportation Consultants

Lake County
Transit Development Plan
2022 Update

Technical Memorandum 1: Existing Conditions

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INTRODUCTION

INTRODUCTION

Transportation is a central issue to daily life, allowing people to achieve all of their specific obligations and activities. Transportation considerations are especially important in Lake County, with smaller communities and scattered population centers connected by winding state highways and local roads. Many Lake County residents, moreover, find it challenging if not impossible to travel by car to access commercial, medical, educational, and social service resources.

Enhancing local mobility helps people access the social and medical services, employment opportunities, and education centers they need, resulting in an improved economy, sense of community, and overall wellbeing across a region. Ensuring people can reach the services they need, both within their own community as well as in the greater Lake County area, is therefore a priority concern. Public transit is a resource that can provide mobility to those in greatest need, such as individuals with a disability preventing them from driving or those who do not have a personal vehicle available. In addition to promoting equity by assisting individuals with limited mobility, public transit can also provide a range of important economic development and environmental benefits.

The Lake Area Planning Council serves as the Regional Transportation Planning Agency (RTPA) for Lake County, and has retained LSC Transportation Consultants, Inc., to prepare an update to the county's Transit Development Plan (TDP). The TDP serves as an opportunity to analyze the public transit system's current operations and to identify potential changes that, if implemented during the next five years, could improve public transit, so that it can better serve Lake County communities.

This document explains the context for transportation in Lake County, including current and future demographic conditions, recent transportation planning efforts, unmet transit needs across the region, the recent operating history of public transit services, and information on connecting services. Future memorandums will encompass a summary of public outreach efforts and then later an evaluation of service alternatives, capital alternatives, funding alternatives, and institutional alternatives. Ultimately the findings from each technical memorandum will be used to inform improvements and service revisions presented in the final, updated Lake County TDP.

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Chapter 2

STUDY AREA CHARACTERISTICS

STUDY AREA

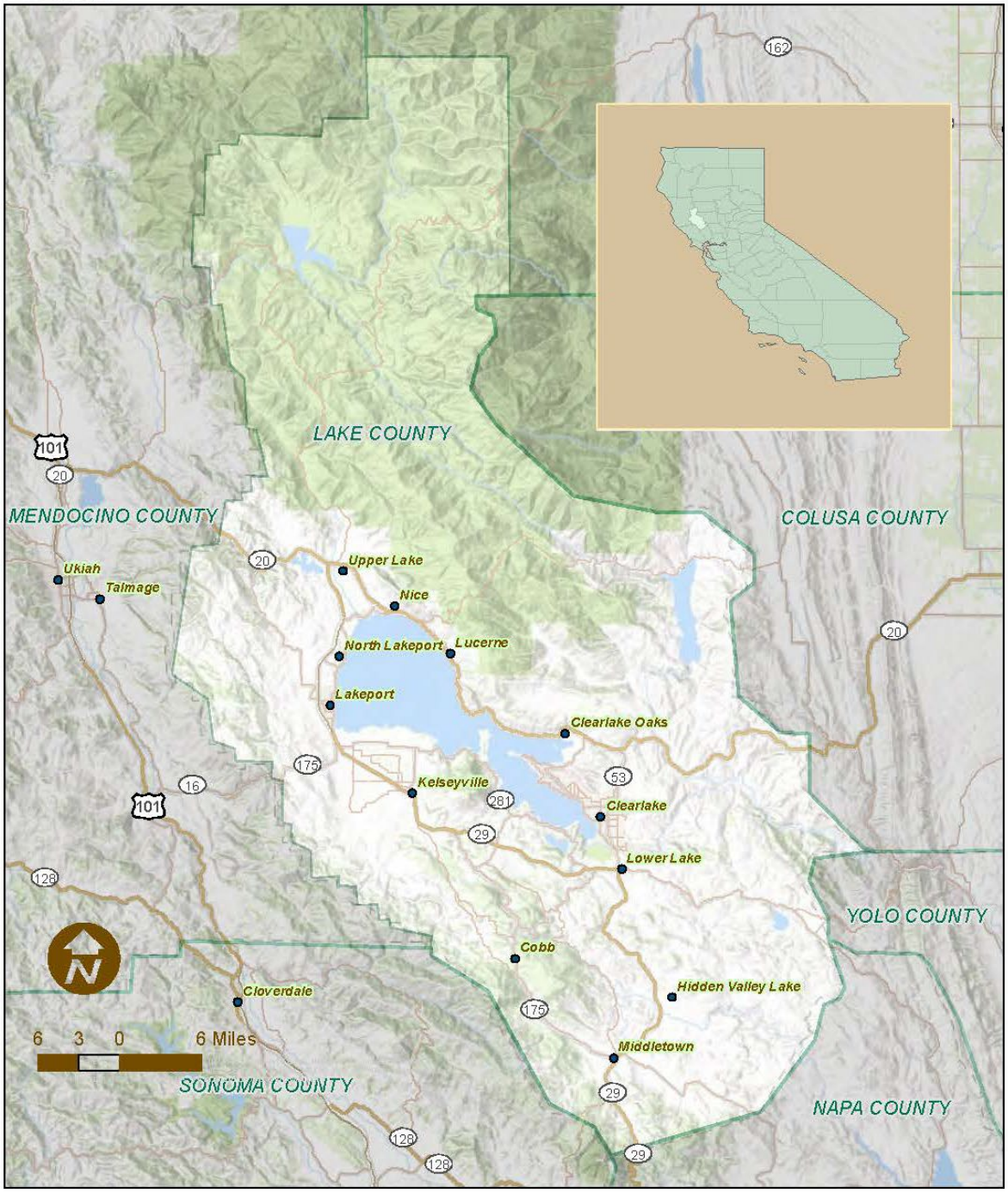
Located in Northern California's Coastal Mountains, Lake County's geography is characterized by beautiful and rugged terrain. The northern portion of the county lies within the remote Mendocino National Forest. Clear Lake is an iconic geographic feature in the county and also the largest freshwater lake entirely within the state of California. The scenic Mount Konocti looms over the shores of Clear Lake, defining the horizon for many in the region. Considered to be part of California's wine country region, many of the hillsides in southern Lake County are covered with picturesque vineyards.

While beautiful, travel across Lake County is challenging due to the mountainous landscape and water features. Most of the county's residents live in communities near the shores of Clear Lake, but there are also residents who live in communities located in the more mountainous areas of the county. Outside of the county, interregional travel is also difficult due to the expansive Coastal Mountains. There are no interstates in Lake County, rather cities and towns are connected by meandering state routes and local roads. State Routes (SR) 20, 29, 53, and 175 serve as major transportation corridors in Lake County. The entire study area is shown in Figure 1.

There are two incorporated cities in Lake County (the Cities of Clearlake and Lakeport) in addition to about a dozen census-designated places and five unincorporated communities. Seven federally recognized tribal governments are also within the county, representing different bands of the Pomo people. The local economy is primarily based on agriculture, tourism, healthcare, and construction. Lake County is bordered by Mendocino, Sonoma, Napa, Yolo, Colusa, and Glenn Counties.

Public transit currently provides service both within and between the communities of Lake County. It is also possible to take public transit to destinations in Mendocino and Napa Counties, from where Lake County residents have the ability to connect to other services which travel south to the Bay Area. The public transit system and fixed routes are further described in Chapter 4.

Figure 1
Site Map



POPULATION CHARACTERISTICS

Population

The population of Lake County was 68,163 in 2020 according to the US Decennial Census (Table 1). The City of Clearlake, with a population of 16,685, is the largest community in the county (24.5 percent of the overall population) (US Census, 2020). Other large population centers in the study area are Hidden Valley Lake (6,235) and the City of Lakeport (5,026) (US Census, 2020). As seen in Table 1, the census tracts with the largest populations are Census Tracts 10 (Kelseyville/Big Valley Rancheria), 7.02 (Clearlake – East), and 8.02 (Clearlake Highlands) (American Community Survey (ACS), 2020). The least populated census tracts are 11.01 (Glenview/Loch Lomond) and 11.02 (Cobb/Forest Lake).

Potentially Transit Dependent Population

Public transit is intended to help everyone meet their transportation needs. Although public transit is available to the entire population living within a service area, a large portion of ridership tends to be drawn from what is known as the "transit dependent" population, a trend that has been found to be consistent nationwide. Youth, senior adults, persons with disabilities, low-income individuals, and households with no available vehicles are all demographic groups considered to be potentially transit-dependent. Obviously, these groups are not exclusive from each other. Table 1 presents the most recent data available estimating the amount of potentially transit dependent individuals within each Lake County census tract, as well as within the Cities of Clearlake, Lakeport, and Lake County overall. The relative concentrations of these persons compared to the area-wide population are also shown.

Youth Population

As most children are not legally able to drive a car, they are considered to be a transit dependent group. This study specifically considers youth between the ages of 5 to 17 because children in this age range are likely unable to drive themselves but are old enough to take the bus to school, work, a friend's house, or other commitments. Many children also ride the bus with their parents and guardians if those individuals rely on public transit themselves. Lake County has a similar concentration of youths ages 5 to 17 compared to the national average (14.4 percent in Lake County versus 16.4 in the US) (ACS, 2020). The youth population is not distributed equally across the county however, with some census tracts having over a quarter of their population ages 5 to 17 while in other census tracts children make up less than five percent of the population. For instance, there is a greater concentration of youth living in Clearlake (20 percent) compared to the rest of Lake County, while in Lakeport there is a smaller concentration (9.8 percent).

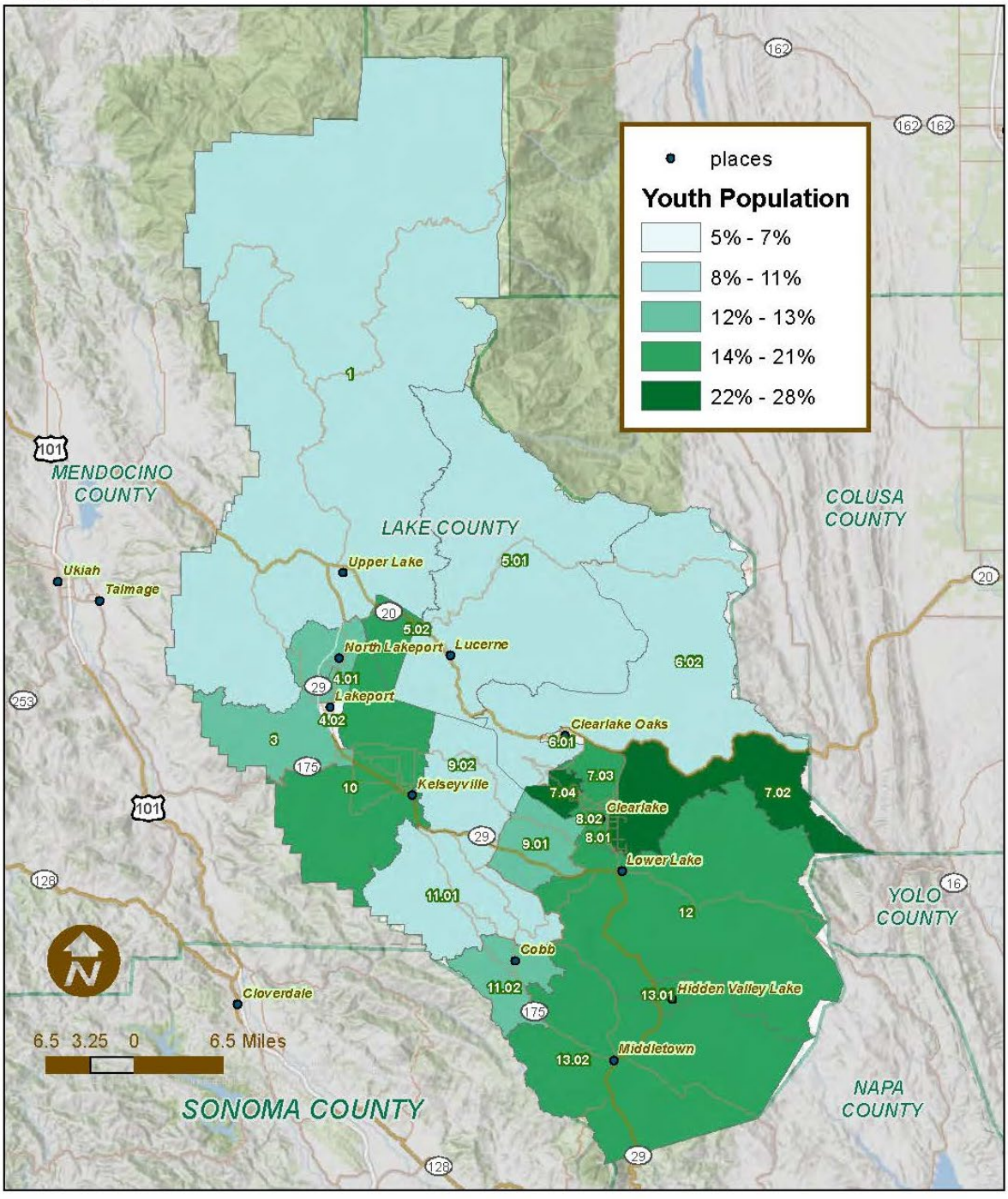
Census Tract 7.02 (Clearlake – East) has the greatest number (1,306) and greatest concentration (27.5 percent) of youth residents out of all the Lake County census tracts. As seen in Figure 2, the only other census tracts with similar concentrations of youths are Census Tracts 7.04 (Clearlake – Northwest) and 13.01 (Hidden Valley Lake). Other census tracts with large numbers of youth are Census Tract 10 (Kelseyville/Big Valley Rancheria) with 1,018 individuals and Census Tract 8.02 (Clearlake Highlands) with 755 individuals (ACS, 2020). The area with the smallest number (96) and concentration (4.1 percent) of youths is Census Tract 6.01 (Clearlake Oaks). This information is presented in Table 1 and Figure 2.

Table 1: Lake County Population Characteristics by Census Tract

Census Tract	Area Description	Total Population	Total Households	Youth (Ages 5 - 17)		Senior Adults (Ages 65+)		Low-Income		Disabled Persons		Zero-Vehicle Households	
				#	%	#	%	#	%	#	%	#	%
1	Upper Lake; North Lake County	3,284	1,230	363	11.1%	759	23.1%	516	15.7%	537	16.4%	40	3.3%
3	Lakeport - West	4,045	1,466	514	12.7%	1,198	29.6%	482	11.9%	618	15.3%	99	6.8%
4.01	Lakeport - North	3,115	1,166	392	12.6%	641	20.6%	174	5.6%	359	11.5%	0	0.0%
4.02	Lakeport - South	2,775	1,294	173	6.2%	855	30.8%	361	13.0%	585	21.1%	181	14.0%
5.01	Lucerne	3,416	1,244	305	8.9%	326	9.5%	636	18.6%	593	17.4%	80	6.4%
5.02	Nice	2,901	981	384	13.2%	588	20.3%	426	14.7%	534	18.4%	140	14.3%
6.01	Clearlake Oaks	2,342	914	96	4.1%	518	22.1%	257	11.0%	563	24.0%	8	0.9%
6.02	Spring Valley; Clearlake Park	2,078	842	194	9.3%	600	28.9%	245	11.8%	286	13.8%	0	0.0%
7.02	Clearlake - East	4,757	1,406	1,306	27.5%	634	13.3%	1,319	27.7%	970	20.4%	73	5.2%
7.03	Clearlake - North	2,416	832	342	14.2%	495	20.5%	559	23.1%	497	20.6%	97	11.7%
7.04	Clearlake - Northweset; Borax Lake	2,158	724	497	23.0%	326	15.1%	556	25.8%	385	17.8%	23	3.2%
8.01	Clearlake - Southwest	2,956	1,129	463	15.7%	593	20.1%	770	26.0%	731	24.7%	173	15.3%
8.02	Clearlake Highlands	4,671	1,815	755	16.2%	792	17.0%	1,250	26.8%	1,182	25.3%	215	11.8%
9.01	Clearlake Rivera	2,598	1,025	373	14.4%	818	31.5%	165	6.4%	584	22.5%	21	2.0%
9.02	Riveria Estates; Soda Bay	4,118	1,644	434	10.5%	1,022	24.8%	511	12.4%	908	22.0%	17	1.0%
10	Kelseyville; Finley; Big Valley Rancheria	6,102	2,271	1,018	16.7%	1,196	19.6%	1,281	21.0%	1,024	16.8%	58	2.6%
11.01	Adams; Glenview; Loch Lomond	1,763	720	140	7.9%	435	24.7%	253	14.4%	298	16.9%	0	0.0%
11.02	Cobb; Forest Lake; Whispering Pines	1,536	581	169	11.0%	249	16.2%	146	9.5%	311	20.2%	0	0.0%
12	Lower Lake	3,414	1,309	494	14.5%	949	27.8%	608	17.8%	570	16.7%	34	2.6%
13.01	Hidden Valley Lake	3,605	1,383	793	22.0%	793	22.0%	207	5.7%	453	12.6%	27	2.0%
13.02	Hidden Valley Lake; Middletown	4,113	1,532	609	14.8%	898	21.8%	325	7.9%	843	20.5%	20	1.3%
	City of Clearlake	**16,685**	**7,850**	**3,344**	**20.0%**	**2,771**	**16.6%**	**4,905**	**29.4%**	**4,038**	**24.2%**	**581**	**7.4%**
	City of Lakeport	**5,026**	**2,439**	**492**	**9.8%**	**1,246**	**24.8%**	**457**	**9.1%**	**126**	**16.2%**	**181**	**7.4%**
	Total Lake County	**68,163**	**25,508**	**9,814**	**14.4%**	**14,685**	**21.5%**	**11,047**	**16.2%**	**12,831**	**18.8%**	**1,306**	**5.1%**

Source: US Decennial Census 2020; American Community Survey 5-year Estimates (2020)

Figure 2
Concentration of Youth Population



Senior Population

Accessible transportation services are critical in helping senior adults live independently as they age. In the context of this study, seniors are considered to be adults ages 65 and older. Over the years, many retirees have found Lake County to be an attractive place to live, resulting in over one fifth (21.5 percent) of Lake County residents now falling into the senior age group as of 2020. Senior adults represent a much greater proportion of the population in Lake County compared to California (14.3 percent) or the US (16 percent) (ACS, 2020). The community with the most people aged 65 years or older is western Lakeport (1,198 residents), which is followed by Kelseyville and the surrounding area (1,196 residents). The Cobb-area is home to the smallest number of seniors (249 residents).

The Lake County census tracts with the greatest concentration of seniors are Census Tract 9.01 (Clearlake Rivera) and Census Tract 4.02 (Lakeport – South); in each area over 30 percent of the population is at least 65 years old (ACS, 2020) As evidenced in Figure 3, other regions with a significant concentration of seniors are western Lakeport (29.6 percent), Spring Valley and Clearlake Park (28.9 percent), and Twin Lakes (27.8 percent). Comparatively, there are far fewer senior adults in the Lucerne area (9.5 percent) or eastern Clearlake (13.3 percent).

Low-Income Population

Due to the expenses associated with owning and maintaining a car, many low-income individuals either do not have a car or choose to ride public transit instead of driving a personal vehicle. In this report, anyone who is below the poverty line as defined by the US Census Bureau is considered to be low-income. At over 16 percent, the poverty rate in Lake County is higher than the statewide and nationwide rates of 11.5 and 11.4 percent, respectively (ACS, 2020).

The City of Clearlake has the greatest number and the greatest concentration of low-income individuals (Table 1 and Figure 4). 29.4 percent of the Clearlake population is estimated to be living below the poverty line, representing over 4,900 people (Table 1). There are also a significant number of low-income individuals (1,281) that live in the Kelseyville and Big Valley Rancheria-area (Census Tract 10). North Lakeport (Census Tract 4.01), Hidden Valley Lake (Census Tract 13.01), and Clearlake Rivera (Census Tract 9.01) have the lowest concentrations of low-income individuals in Lake County (all less than 6.5 percent).

Disabled Persons

Public transit is an excellent mobility option for many people with disabilities who may be unable to drive themselves because of a physical or cognitive constraint. According to the 2020 American Community Survey (ACS), 18.8 percent of the Lake County population has a disability. This is a higher rate compared to California (10.7 percent) or the US (12.7 percent). Census Tracts 8.02 (Clearlake Highlands), 10 (Kelseyville/Big Valley Rancheria), and 7.02 (Clearlake – east) have the greatest numbers of disabled persons with 1,182 people, 1,024 people, and 970 people, respectively. As seen in Figure 5, there are multiple areas across Lake County where disabled individuals make up more than 20 percent of the area's overall population. The areas with a large portion of the population living with a disability include Clearlake, Middletown, Cobb, Soda Bay, and Nice (Table 1 and Figure 5).

Figure 3
Concentration of Senior Adults

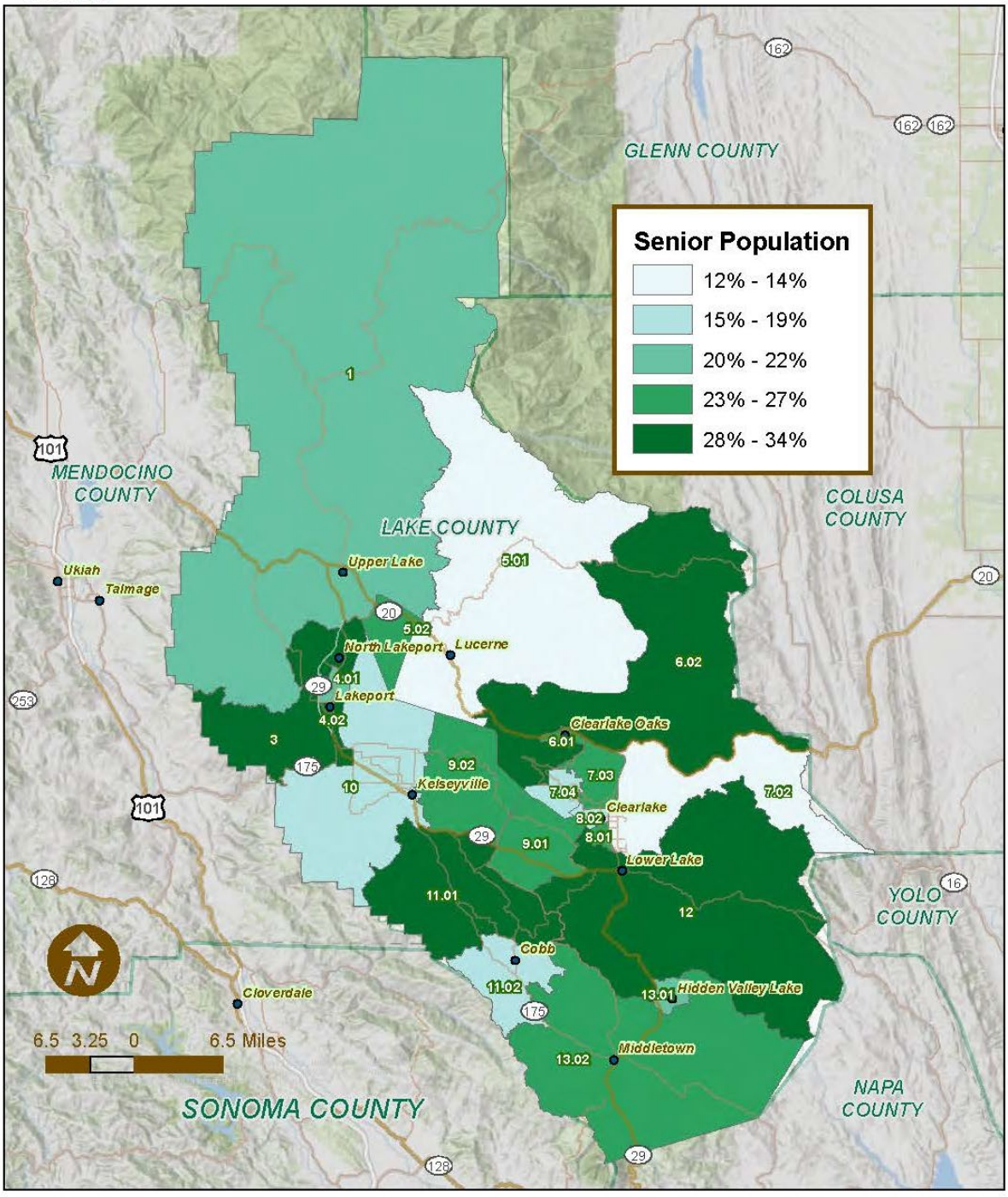


Figure 4
Concentration of Low-Income Individuals

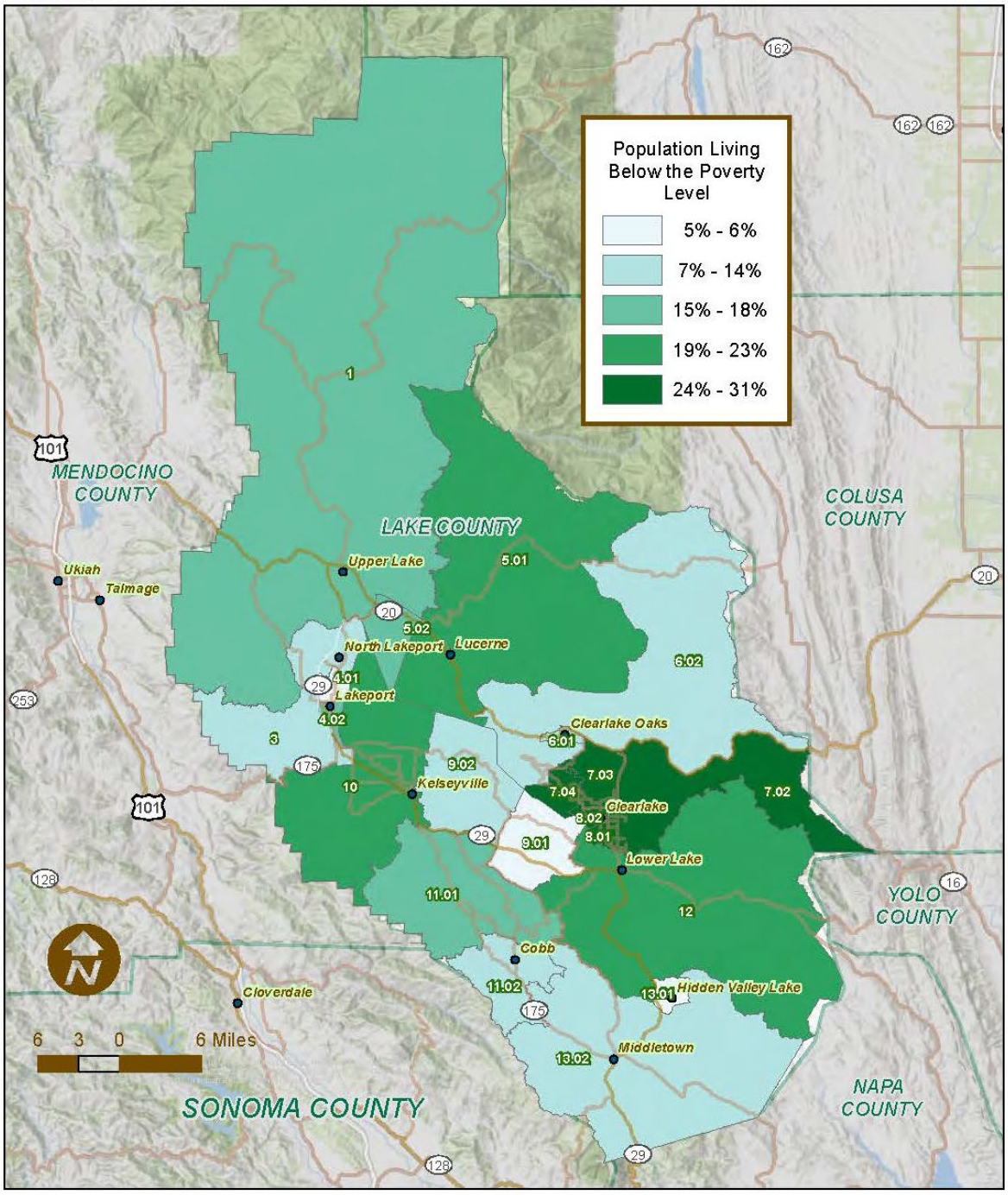
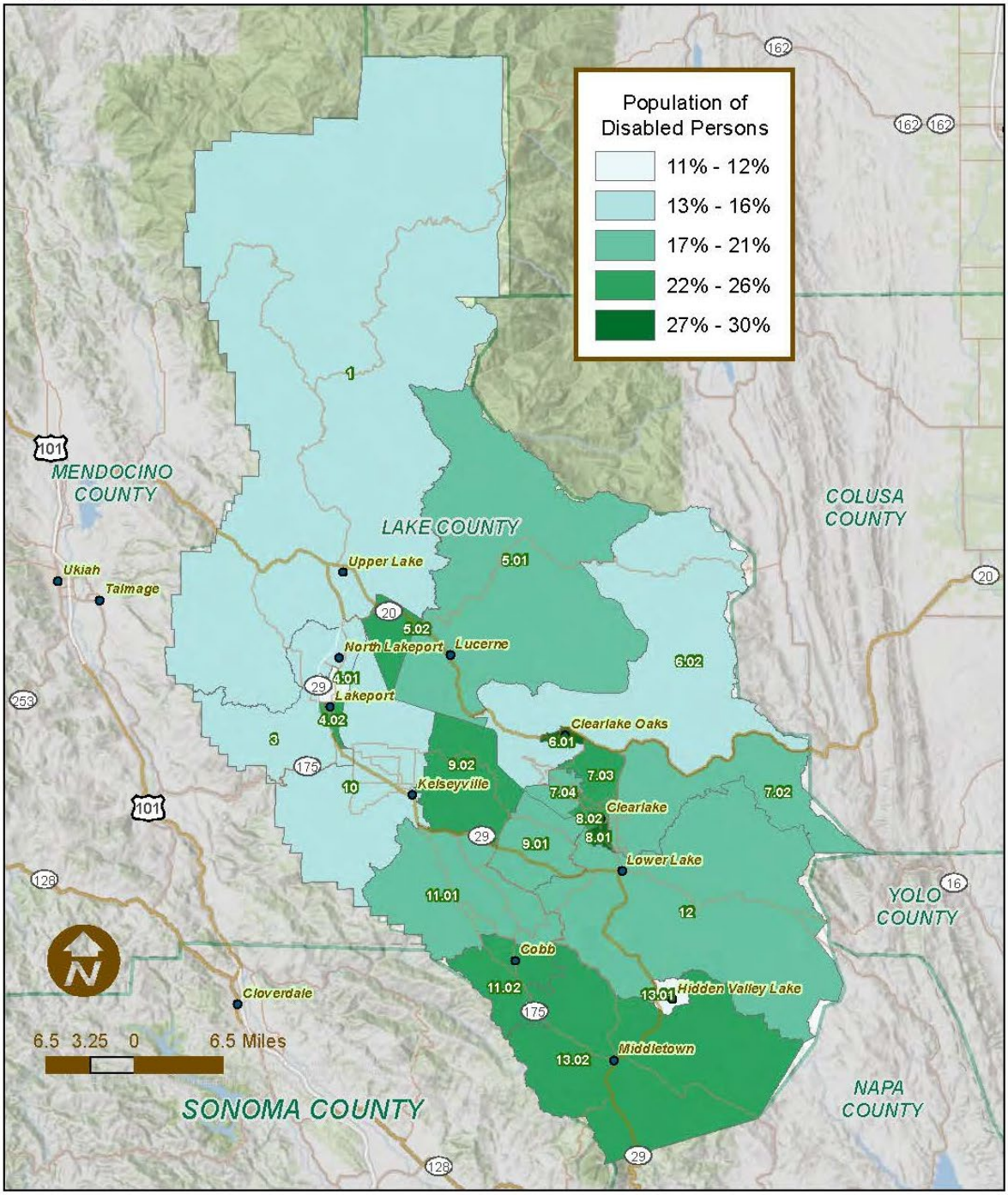


Figure 5
Concentration of Disabled Persons



Zero Vehicle Households

Households without a vehicle available, or zero-vehicle households, are perhaps the most obvious group that is considered part of the overall transit dependent population. For people within these homes, public transit is likely one of the most predictable options available for motorized travel. According to the 2020 ACS, approximately 5 percent of Lake County households do not have a car. This equates to 1,306 homes across the county.

Table 1 shows zero-vehicle household data for each census tract in Lake County. The data indicates that nearly half (44.5 percent) of households without a personal vehicle available are located in the City of Clearlake. The City of Lakeport (181 households), Nice (140 households), and Lucerne (80 households) also have a significant number of zero-vehicle households. It was estimated there were no zero-vehicle households in north Lakeport, Spring Valley/Clearlake Park, Cobb, Forest Lake, or Glenview (ACS, 2020). Figure 6 presents countywide data regarding the number of zero-vehicle households in each census tract.

Transit Needs Index

Lake County's population has a greater proportion of seniors, disabled, and low-income individuals compared to statewide and national averages. Although members of these three demographic groups, as well as children and members of zero-vehicle households, live all across Lake County, it is still important to discern any overarching pattern in where these potentially transit dependent persons live so limited transit resources can be used effectively.

A Transit Needs Index (TNI) was developed to calculate which areas of Lake County have the greatest need for transit services when considering all of the potentially transit dependent demographic groups. The TNI is shown in Table 2. The transit dependent groups within each census tract were ranked on a scale of 1 (very low need) to 5 (very high need) based on the density of said group (number of people per square mile within the census tract) compared to the respective density of that demographic group in other census tracts. For Census Tracts 1 and 5.01, the estimated number of square miles in each tract protected by the Mendocino National Forest was subtracted from the overall size to produce a more accurate density calculation. Each rank score by type was then summed by census tract to determine an overall score which represents the TNI. The complete TNI representing relative transit need is shown in Table 2 and Figure 7.

Both Table 2 and Figure 7 clearly demonstrate that the Lake County census tracts with the greatest overall need for transportation services, according to the density of individuals considered transit dependent, are Census Tracts 8.01 and 8.02 (southwest Clearlake and Clearlake Highlands). As Clearlake is the most populated city in the county, the number of transit dependent individuals living in other census tracts within the city that scored lower on the TNI should still be considered when planning transit services (Table 1). Besides Clearlake, there is a high level of transit need in Lakeport. In southern Lakeport, in particular (Census Tract 4.02), there is a greater density of seniors and disabled individuals and zero-vehicle households compared to most other areas in the county (Table 2). Clearlake Oaks, Nice, and Hidden Valley Lake are the only other communities that demonstrate significant transit needs as calculated by the TNI.

Figure 6
Concentration of Zero Vehicle Households.

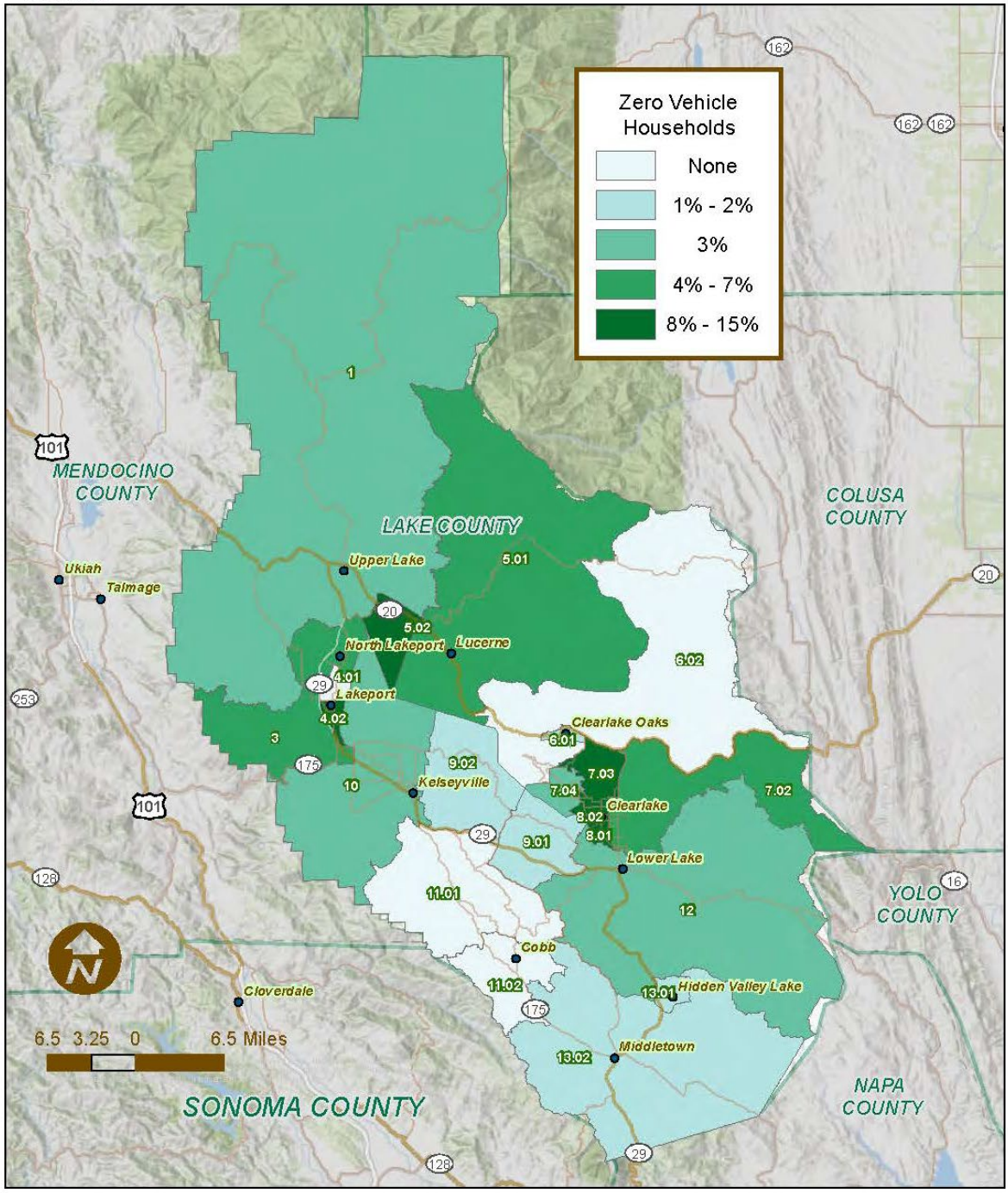


Table 2: Lake County Transit Needs Index

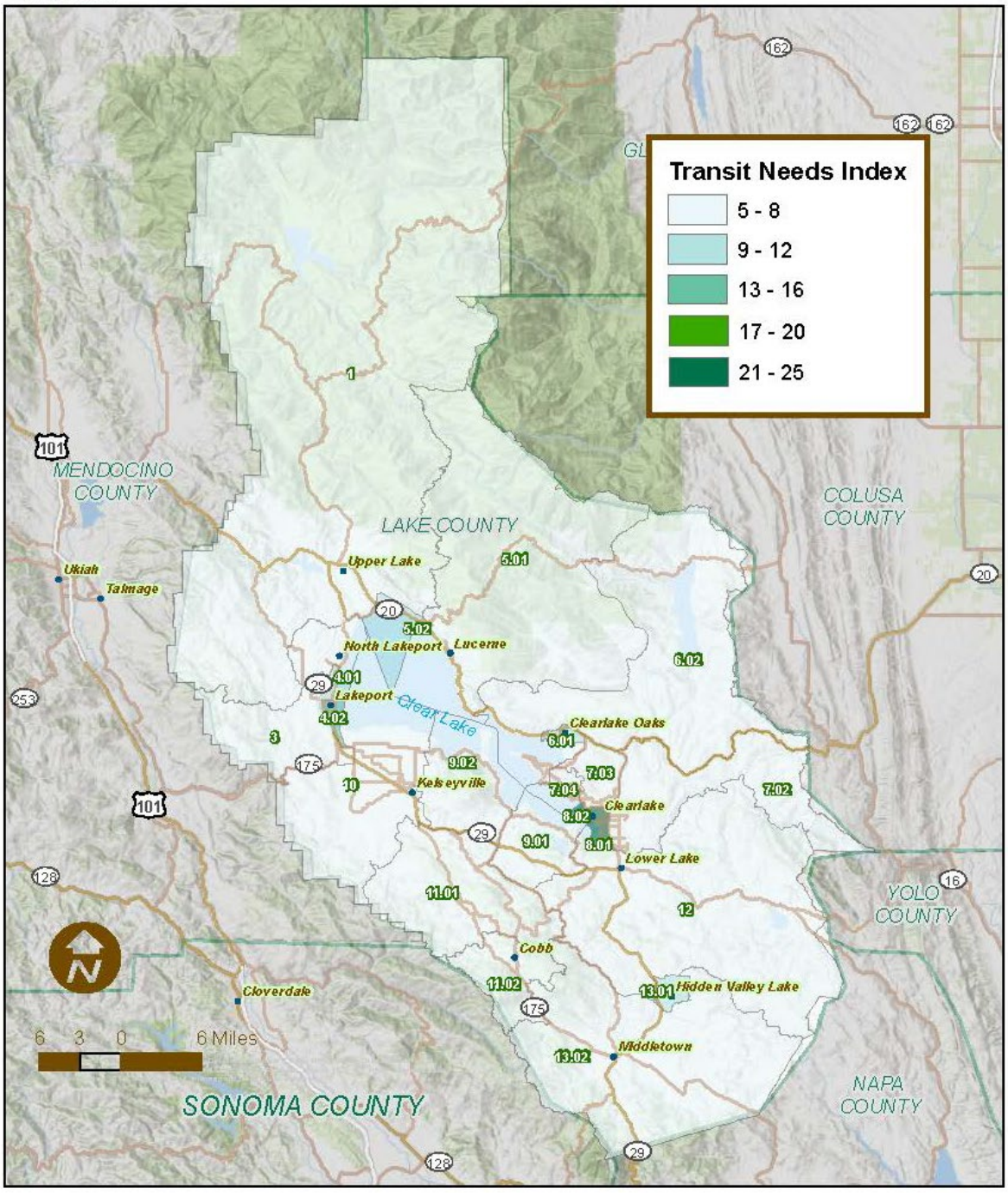
Legend	
1	Very Low Rank
2	Low Rank
3	Medium Rank
4	High Rank
5	Very High Rank

Census Tract	Area Description	Land Area (Sq Mile)	Total Population	Total Households	Rank					Transit Needs Index
					Youth (Ages 5-17)	Senior Adults (Ages 65+)	Low-Income	Disabled Persons	Zero-Vehicle Households	
1	Upper Lake; North Lake County	138.3	3,284	1,230	1	1	1	1	1	**5**
3	Lakeport - West	38.3	4,045	1,466	1	1	1	1	1	**5**
4.01	Lakeport - North	1.7	3,115	1,166	2	4	1	2	1	**10**
4.02	Lakeport - South	1.6	2,775	1,294	1	5	2	3	4	**15**
5.01	Lucerne	29.3	3,416	1,244	1	1	1	1	1	**5**
5.02	Nice	2.4	2,901	981	2	3	1	2	2	**10**
6.01	Clearlake Oaks	1.1	2,342	914	1	4	2	3	1	**11**
6.02	Spring Valley; Clearlake Park	113.6	2,078	842	1	1	1	1	1	**5**
7.02	Clearlake - East	46.9	4,757	1,406	1	1	1	1	1	**5**
7.03	Clearlake - North	8.5	2,416	832	1	1	1	1	1	**5**
7.04	Clearlake - Northweset; Borax Lake	2.3	2,158	724	2	2	2	1	1	**8**
8.01	Clearlake - Southwest	1.1	2,956	1,129	4	5	4	4	5	**22**
8.02	Clearlake Highlands	1.3	4,671	1,815	5	5	5	5	5	**25**
9.01	Clearlake Rivera	16.2	2,598	1,025	1	1	1	1	1	**5**
9.02	Riveria Estates; Soda Bay	21.5	4,118	1,644	1	1	1	1	1	**5**
10	Kelseyville; Big Valley Rancheria	56.1	6,102	2,271	1	1	1	1	1	**5**
11.01	Adams; Glenview; Loch Lomond	52	1,763	720	1	1	1	1	1	**5**
11.02	Cobb; Forest Lake; Whispering Pines	19	1,536	581	1	1	1	1	1	**5**
12	Lower Lake	143.5	3,414	1,309	1	1	1	1	1	**5**
13.01	Hidden Valley Lake	3.2	3,605	1,383	3	3	1	1	1	**9**
13.02	Hidden Valley Lake; Middletown	118.7	4,113	1,532	1	1	1	1	1	**5**

Source: US Decennial Census 2020; American Community Survey 5-year Estimates (2020)

Note: Land areas sourced from the US Census Bureau. Land areas for Census Tract 1 and 5.01 adjusted to reflect land protected by the Mendocino National Forest.

Figure 7
Transit Needs Index



Population Projections

When planning for the future of a transit system it is important to not only consider current characteristics of the population, but also to evaluate population forecasts and trends to predict how transit demand may change over upcoming years. If the youth population is predicted to grow, there may be more demand for transportation services to local schools. On the other hand, if the senior population is predicted to grow there may be increased need for American Disability Act (ADA) paratransit services or an on-demand service. Table 3 presents population projections by age group for Lake County as estimated by the California Department of Finance. Highlights include:

- Lake County's population is expected to increase by only 1.7 percent between 2022 and 2035. The population is predicted to grow by 0.2 percent from 2022 until 2025, then will grow at a slightly faster rate from 2025 to 2030 (0.8 percent) and 2030 to 2035 (0.7 percent).
- Youth between ages 5 and 17 will grow as a group at a slightly faster rate than the overall population, growing by 1 percent between 2022 to 2025 and by another 1.8 percent between 2025 to 2030.
- The adult populations between the ages of 18 to 24 and 25 to 44 will both grow slightly during upcoming years, increasing by 1.5 and 3.2 percent, respectively, by 2025. Each group will grow at a faster rate in the following ten years, with each age bracket predicted to increase by about 0.7 or 0.8 percent annually.
- The adult population between the ages of 45 to 64 will decrease by 8.7 percent between 2022 and 2025 and will continue to decrease by another 7 percent between 2025 and 2030.
- The senior population between the ages 65 and 74 is expected to decrease from 2022 through 2035, with a 2.6 percent decrease predicted between 2022 and 2025 before a much faster rate of decrease after 2025 (24.4 decrease from 2025 to 2035). This age group will experience the greatest annual rate of decrease from 2025 to 2035 (-2.8 percent per year).
- Seniors between the ages of 75 and 84 will grow at the fastest rate in the upcoming three years (14.8 percent), likely due to the aging of the Baby Boomer generation. This growth is expected to continue through the end of the decade before plummeting to zero percent growth between 2030 to 2035.
- Finally, the senior population ages 85 and above is predicted to grow by 12.2 percent over the next three years. This age group is expected to grow at a much faster rate after 2025, with 27.9 percent growth predicted between 2025 and 2030 and 30.7 percent growth predicted in the five years following. This is also the age group that is most likely to become transit dependent.

In all, there will likely be increased need for transit services, especially demand response, paratransit, or non-emergency medical transportation services in upcoming years due to the projected growth of the senior population ages 75 years and older. This age group is forecast to increase by 42 percent between 2022 and 2035.

Table 3: Lake County Population Projections by Age

	Age in Years								Total Population[1]
	0 - 4	5 - 17	18 - 24	25 - 44	45 - 64	65 - 74	75 - 84	85+	
2022	3,661	9,946	5,065	14,677	15,037	8,831	5,122	1,799	64,138
2025	3,694	10,046	5,140	15,150	13,727	8,603	5,880	2,019	64,259
2030	3,783	10,225	5,339	15,761	12,772	7,826	6,475	2,583	64,764
2035	3,824	10,372	5,506	16,372	12,810	6,500	6,477	3,376	65,237
% Change 2022-2025	*0.9%*	*1.0%*	*1.5%*	*3.2%*	*-8.7%*	*-2.6%*	*14.8%*	*12.2%*	*0.2%*
% Change 2025-2030	*2.4%*	*1.8%*	*3.9%*	*4.0%*	*-7.0%*	*-9.0%*	*10.1%*	*27.9%*	*0.8%*
% Change 2030-2035	*1.1%*	*1.4%*	*3.1%*	*3.9%*	*0.3%*	*-16.9%*	*0.0%*	*30.7%*	*0.7%*
Average Annual % Change 2025-2035	*0.3%*	*0.3%*	*0.7%*	*0.8%*	*-0.7%*	*-2.8%*	*1.0%*	*5.3%*	*0.2%*

Source: California Department of Finance, 2020
Note 1: Population estimates differ from US Census Data due to different data methods.

EMPLOYMENT AND ECONOMY

Lake County was estimated to have an unemployment rate of 10.5 percent in 2020 (ACS, 2020). This represents a significantly higher rate than the state of California (3.9 percent) or the US (3.4 percent). The unemployment rate is likely a contributing factor to the Lake County's higher than average rate of low-income persons.

Table 4 shows Lake County's largest employers as estimated by the California Employment Development Department (2022). As evidenced in the table, large employers are primarily located in Clearlake, Lakeport, and Middletown. Casinos represent three of the county's largest employers; Robinson Rancheria Resort and Running Creek Casino are estimated to employ over 250 people while Konocti Vista Casino employs over 100. Lake County's two largest medical providers, Adventist Health and Sutter Lakeside Hospital, are also each estimated to employ over 250 individuals. Some of the largest employers, such as the County itself, do not show up on this list because the California Employment Development Department considers each distinct office to be a separate employer.

COMMUTE PATTERNS AND TRAVEL INFORMATION

Commute Patterns

Understanding commuting patterns allows for transportation services to be designed so that they can be utilized by workers, resulting in less congestion on local roads and better air quality. The US Census Bureau maintains the "Longitudinal Employer-Household Dynamics" dataset, a resource that provides extensive information on where people who live in a set area are employed, as well as data on where a set area's employees live. Lake County commuter data is presented in Table 5 at both the county and the city/town level. As one person may hold multiple positions, datapoints represent jobs and not individuals. The datapoints in Table 5 represent values from 2019, and therefore do not reflect any changes to local commute patterns that may have resulted from the COVID-19 pandemic.

Table 4: Lake County Major Employers

Company	Location	# Of Employees
Adventist Health	Clearlake, CA	250-499
Calpine	Middletown, CA	250-499
Robinson Rancheria Resort - Casino	Nice, CA	250-499
Running Creek Casino	Lakeport, CA	250-499
Sutter Lakeside Hospital	Lakeport, CA	250-499
Bruno's Shop Smart	Lakeport, CA	100-249
Hardester's Markets	Middletown, CA	100-249
Hidden Valley Lake Association	Hidden Valley Lake, CA	100-249
Konocti Vista Casino	Lakeport, CA	100-249
Lake County Social Services Dept.	Lower Lake, CA	100-249
Meadowood Nursing Center	Clearlake, CA	100-249
Middletown School District	Middletown, CA	100-249
Safeway	Clearlake, CA	100-249
Twin Pine Casino & Hotel	Middletown, CA	100-249
Lake County Tribal Health	Lakeport, CA	50-99
Lakeport Post Acute	Lakeport, CA	50-99
People Services, Inc.	Lakeport, CA	50-99
Woodland Community College	Clearlake, CA	50-99

Source: California Employment Development Department, Labor Market Info, 2022

It is important to note that the US Census Bureau does not specify which jobs are remote. Therefore, jobs that seems to be unreasonably far from Lake County are likely done via telework. For instance, the 235 Humboldt County jobs held by Lake County residents are likely done mostly remotely.

Where Lake County Workers Live

Most of Lake County's jobs are held by residents of Lake County (70.3 percent). The only other counties which contribute a significant number of workers are Sonoma (6.1 percent of jobs) and Mendocino Counties (4.8 percent of jobs). Looking at the Census Place level, Clearlake, Lakeport and Hidden Valley are the places of residence for the most employees working in Lake County (15.9 percent, 8.3 percent, and 4.8 percent, respectively).

Where Lake County Residents Work

Just over half of jobs held by Lake County residents are within the county (52.9 percent). Counties that many residents commute to are Sonoma (11.5 percent of jobs), Mendocino (8.0 percent of jobs), and Napa Counties (4.9 percent of jobs). Data by Census Place shows that 11.8 percent of jobs held by Lake County residents are in Lakeport, 10.4 percent in Clearlake, and 3.8 percent in Kelseyville. The top two communities for residents to be employed in outside of the county are Santa Rosa (4.4 percent of jobs) and Ukiah (3.4 percent of jobs). Jobs held in San Francisco are likely remote.

Table 5: Lake County Local and Regional Commute Patterns, 2019

*Bold indicates Lake County or place within Lake County

Where Employees In Lake County Commute From

Counties	# of Jobs	% of Total	Cities/Towns	# of Jobs	% of Total
Lake	11,006	70.3%	**Clearlake**	2,491	15.9%
Sonoma	962	6.1%	**Lakeport**	1,294	8.3%
Mendocino	753	4.8%	**Hidden Valley Lake**	844	5.4%
Sacramento	252	1.6%	**North Lakeport**	698	4.5%
Contra Costa	211	1.3%	**Clearlake Riviera**	678	4.3%
Napa	167	1.1%	**Kelseyville**	624	4.0%
Solano	167	1.1%	**Lucerne**	408	2.6%
Butte	124	0.8%	**Clearlake Oaks**	298	1.9%
Alameda	123	0.8%	**Nice**	290	1.9%
Tehama	115	0.7%	Santa Rosa	249	1.6%
All other locations	1,767	11.3%	**Soda Bay**	233	1.5%
			Ukiah	207	1.3%
			Middletown	185	1.2%
			Cobb	184	1.2%
			Upper Lake	174	1.1%
			Lower Lake	173	1.1%
			All other locations	6,617	42.3%
Total Number of Jobs	15,647		Total Number of Jobs	15,647	

Where Lake County Residents Work and Commute to

Counties	# of Jobs	% of Total	Cities and Towns	# of Jobs	% of Total
Lake	11,006	52.9%	**Lakeport**	2,455	11.8%
Sonoma	2,387	11.5%	**Clearlake**	2,160	10.4%
Mendocino	1,654	8.0%	Santa Rosa	907	4.4%
Napa	1,028	4.9%	**Kelseyville**	789	3.8%
Sacramento	437	2.1%	Ukiah	705	3.4%
Alameda	404	1.9%	**Lower Lake**	492	2.4%
San Francisco	378	1.8%	**Nice**	430	2.1%
Contra Costa	296	1.4%	**Middletown**	406	2.0%
Humboldt	235	1.1%	**Hidden Valley Lake**	400	1.9%
Santa Clara	230	1.1%	**Upper Lake**	394	1.9%
All other locations	2,746	13.2%	San Francisco	378	1.8%
			North Lakeport	366	1.8%
			Clearlake Oaks	326	1.9%
			Lucerne	260	1.8%
			Sacramento	223	1.1%
			All other locations	10,110	48.6%
Total Number of Jobs	20,801		Total Number of Jobs	20,801	

Source: US Census Bureau LEHD Database, 2019

Note: Bold text indicates locations within Lake County.

Modes of Transportation to Work

Table 6 shows that the majority of Lake County residents drive alone to work (68 percent). Another 11 percent carpool, meaning that nearly 80 percent of Lake County workers get to work using a car or similar type of vehicle. Approximately, 16 percent of people are estimated to perform work duties from home (ACS, 2020). Only 1 percent of workers commute via public transit, with Clearlake residents most frequently using the bus to get to work; Census Tracts 7.02 (Clearlake – East), 7.03 (Clearlake – North), 8.01 (Clearlake – Southwest), and 8.02 (Clearlake Highlands) all have a greater proportion of residents who ride public transportation to work compared to the county average. Potential service changes that could encourage greater use of public transit for commuting would generate increased ridership and would likely result in improved traffic conditions and healthier air quality across the region.

Table 6: Lake County Modes of Transportation to Work

						High Value	Low Value
Census Tract	Area Description	Drove Alone	Carpooled	Public Transit	Walked	Bicycled	Worked from Home
1	Upper Lake; North Lake County	77%	11%	0%	4%	0%	8%
3	Lakeport - West	74%	10%	0%	0%	0%	14%
4.01	Lakeport - North	71%	11%	0%	0%	0%	15%
4.02	Lakeport - South	68%	26%	1%	2%	0%	4%
5.01	Lucerne	68%	17%	0%	2%	0%	13%
5.02	Nice	80%	12%	0%	0%	0%	8%
6.01	Clearlake Oaks	57%	9%	0%	13%	0%	22%
6.02	Spring Valley; Clearlake Park	82%	3%	0%	2%	0%	13%
7.02	Clearlake - East	61%	17%	4%	6%	0%	11%
7.03	Clearlake - North	62%	17%	2%	0%	0%	13%
7.04	Clearlake - Northweset	68%	4%	0%	2%	0%	26%
8.01	Clearlake - Southwest	71%	3%	6%	2%	3%	14%
8.02	Clearlake Highlands	72%	10%	3%	4%	0%	11%
9.01	Clearlake Rivera	67%	9%	0%	3%	0%	22%
9.02	Riveria Estates; Soda Bay	70%	13%	0%	3%	0%	13%
10	Kelseyville; Finley; Big Valley Rancheria	75%	8%	1%	4%	0%	10%
11.01	Adams; Glenview; Loch Lomond	46%	6%	0%	5%	0%	44%
11.02	Cobb; Forest Lake; Whispering Pines	49%	22%	0%	0%	0%	30%
12	Lower Lake	85%	4%	0%	0%	0%	11%
13.01	Hidden Valley Lake	75%	5%	0%	0%	0%	19%
13.02	Hidden Valley Lake; Middletown	59%	21%	0%	0%	0%	18%
	Total County	**68%**	**11%**	**1%**	**3%**	**0%**	**16%**

Source: US Census American Community Survey, 2020

MAJOR ACTIVITY CENTERS

Effective transit services move people to and from major activity centers in the service area. Examples of activity centers include medical facilities, schools, grocery stores, social service organizations, parks, and tribal headquarters, or any other location that may generate a large amount of transit ridership. Major activity centers in Lake County were identified in the process of developing this report; Table 7 lists some of these offices and facilities. While this list is not all inclusive, it is still a detailed compilation of locations where residents may want transportation services.

In Lake County, there are many activity centers in Lakeport (the county seat and home to many county government offices) as well as Clearlake. Past studies and public outreach efforts conducted by the Lake Area Planning Council (Lake APC) have found that people travel out-of-county for a variety of reasons to many cities and towns. In order to summarize these out-of-county locations more accurately, only the most popular destinations were included in the table. The location of activity centers in reference to existing public transit offerings is considered in Chapter 4.

As shown in Table 7, there are two hospitals in Lake County: 1) Clearlake (Adventist Health Clearlake) and 2) Lakeport (Sutter Lakeside Hospital). Although there are medical clinics across the county, if someone needs more specialized medical treatments, they likely have to travel to one of the hospitals in either Clearlake or Lakeport. Many people have also reported during past planning efforts that rather than visiting the local hospitals for treatment, they have to travel out of the county for medical appointments. Given the high concentration of seniors in Lake County, there is increased demand for transportation assistance to these medical appointments. It is critical that seniors are able to use the transit system to get to appointments, both within Lake County and in out-of-county destinations. The need for transportation to doctor's appointments may be more pronounced in communities such as Kelseyville, Lower Lake, Middletown, Nice, and Upper Lake where there are large populations of seniors but no hospitals.

Table 7: Major Transit Activity Centers in Lake County

	Human Service & Tribal Agencies	Seniors	Schools & Youth Programs	Shopping & Recreation	Medical
Clearlake	Calvary Chapel Food Bank Lake County Dept. of Mental Health	Clearlake Community Senior Center Konocti Senior Support Meadowood Nursing Center Orchard Park Assisted Living Walnut Grove Apartments	Headstart Program - Meadowbrook Lake County Youth Services Woodland Community College	Austin Park Burns Valley Mall Walmart	Adventist Health Community Hospital Adventist Health Family Health Center Tribal Health - South Shore Clinic
Kelseyville	Bergesen Family Home	Kelseyville Seniors, Inc.	Kelseyville Unified School District	Kelseyville Food Center	Adventist Health Clinic - Kelseyville
Lakeport	Big Valley Rancheria California Children Services CA Human Development Corp. Employment Development Dept. Lake County Career Center People Services Scotts Valley Band of Pomo	Lakeport Senior Center Rocky Point Care Center	Clear Lake High School Lake County Office of Education Mendocino College	Grocery Outlet Konocti Vista Casino Lakeside County Park Library Park Safeway	Lakeport Dept. of Behavioral Health Lakeport Dept. of Public Health Lakeport Post Acute MCHC - Lakeview Center Sutter Lakeside Hospital Tribal Health - Main Clinic
Lower Lake	Cal WORKS CalFresh Program Habitat for Humanity Lake County Dept. of Social Services		Konocti Unified School District	Anderson Marsh	
Lucerne	Lake County Dept. of Mental Health	Lucerne-Alpine Senior Center Northlake Adult Daycare Center	Lucerne Elementary School	Lucerne Clubhouse Lucerne Harbor	Adventist Health Clinic - Lucerne
Middletown	Catholic Church Charities Middletown Rancheria	Middletown Senior Center	Middletown Unified School District	Hardester's Market Twin Pine Casino	Adventist Health Clinic - Middletown Tribal Health - Middletown Clinic
Nice	Robinson Rancheria	Sunrise Special Services Foundation		Hinman Park Robinson Rancheria Resort	
Upper Lake	Clover Valley Guest Home Habematoel Pomo of Upper Lake	Upper Lake Senior Support Services	Upper Lake Unified School District	Lake Pillsbury Upper Lake Grocery	
Out-of-County Destinations	Oakland, Sacramento, San Francisco, Santa Rosa, St. Helena, Ukiah, Willits				

Source: LSC Transportation Consultants, Inc.; Coordinated Public Transportation Plan: Lake County (2021)

Chapter 3

REVIEW OF RECENT PLANNING STUDIES

RECENT STUDIES AND REPORTS RELEVANT TO THE CURRENT EFFORT

There have been several recent transportation planning studies in Lake County that are relevant to the current Transit Development Plan (TDP) update. These plans, overseen by the Lake Area Planning Council (Lake APC), are briefly summarized below.

Regional Transportation Plan (RTP)/ Active Transportation Plan (ATP), 2022

As Lake County's Regional Transportation Planning Agency (RTPA), the Lake APC is required to develop a long-range Regional Transportation Plan (RTP) every four years in order to qualify for federal and state transportation funding. The most recent update to Lake County's RTP was completed in 2022 in tandem with an update to the county's Active Transportation Plan (ATP). The RTP discusses the condition of state highways, local roads, public transit, tribal transportation, and aviation within Lake County, and then identifies goals and projects for each sector. The ATP chapter outlines projects that will encourage greater rates of walking and bicycling across Lake County.

Some of the goals described for the state highway system and local roads which are also relevant to public transit include improving mobility on state highways, implementing roadway improvements along Lakeshore Drive in Clearlake and South Main Street in Lakeport, and reconstructing roads across the county in need of repair. The ATP chapter also mentions that projects which would improve road conditions should be prioritized. Given that poor road conditions have been noted by Lake Transit riders during past public participation as a detriment to riding the bus, projects to rehab roads may result in increased transit ridership. More short-term projects recommended in the ATP that could impact public transit riders include bicycle and pedestrian improvements along Dam Road Extension and the completion of the Clearlake Transit Center.

Due to the higher-than-average number of transit-dependent individuals in Lake County, the public transit component of the RTP is especially important. Proposed projects were selected to encourage greater Lake Transit ridership. Short-term projects identified consist of purchasing new vehicles, improving bus stop amenities, and completing construction of the Clearlake Transit Center. Long-term projects outlined are the implementation of an electronic fare management system and the development of a transit center in Lakeport.

Regional Transportation Improvement Program (RTIP), 2022

California law requires each RTPA to prepare and adopt a Regional Transportation Improvement Program (RTIP) every other year. The most recent Lake County RTIP addressed how COVID-19 Relief funds would be used to progress various transportation projects. Projects outlined in the RTIP include the eventual completion of the Lake 29 Expressway Project, the installation of guardrails in Clearlake, the installation of a signal controller at the intersection of Highway 53 and Olympic Drive in Clearlake, reconstruction of Green Street in Lakeport, and street corridor improvements along South Main Street in Lakeport and Soda Bay Road in Kelseyville, among others.

Coordinated Public Transportation Plan: Lake County, 2021

The objective of the *Coordinated Public Transportation Plan* (Coordinated Plan) is to determine how existing transportation providers in the county can coordinate their services and pool resources to improve mobility for transit dependent residents. In order for a project to be funded under Federal Transit Administration (FTA) Section 5310, the project must have been included in the Coordinated Plan. Most of the public, social service, private, and interregional transportation services mentioned in the Coordinated Plan will be summarized in Chapter Four of this TDP.

The Coordinated Plan found there was no documented duplication of services in Lake County at the time of the report. Priority strategies for addressing persistent unmet transit needs in the community were identified and summarized by the following goals: support, maintain and enhance Lake County public transportation, improve and expand specialized transportation alternatives through strategic partnerships, and continue development of non-emergency medical transportation (NEMT) solutions. Lake Links, the Consolidated Transportation Services Agency (CTSA), manages a transportation program to provide out-of-county transportation for medical appointments.

Vehicle Miles Traveled (VMT) Regional Baseline Study, 2020

Senate Bill (SB) 743 was signed by former Governor Jerry Brown in 2013, changing how California municipalities are required to analyze the impacts of transportation under the California Environmental Quality Act (CEQA). A key change was that vehicle miles traveled (VMT) became the preferred metric to identify CEQA compliance instead of Level of Service or traffic congestion. Besides discussing methodologies for measuring and assessing VMT in Lake County, the *VMT Regional Baseline Study summarizes* existing data and recommends transportation demand management strategies for reducing VMT generated by transportation projects. Community-scale strategies include providing pedestrian network improvements, traffic calming measures, bicycle network improvements, implementing car-sharing programs, and increasing transit frequency and speed.

The VMT Regional Baseline Study explains that in order to make transit a similarly convenient choice to driving, transit service frequency and speed need to be increased. To effectively serve the dispersed areas of Lake County, the study recommends implementing either a commuter transit service or potentially a demand-responsive transit service targeted at helping people across Lake County avoid driving personal vehicles in areas near transportation projects to mitigate VMT.

Lake Transit Authority Bus Passenger Facilities Plan, 2019

A plan was completed in late 2019 reviewing existing bus passenger facilities in Lake County. Data collected from the bus stop inventory and associated public outreach efforts was used to outline a strategy for future improvements. Design standards recommended in the plan are to be applied to sidewalks and bicycle facilities near the public transit network as well as to bus pullouts, wheelchair loading pads, bus shelters, the location of bus stops, materials, and drainage, among other features.

The project team conducted an inventory of existing Lake Transit bus stops to determine good locations for bus stop improvements that could be completed in the short-term, such as fixing a sign,

trimming vegetation to make the stop more visible, or installing benches. Other stops were identified as good candidates for long-term improvements, such as the replacement of bus shelters, installation of lighting, and ADA improvements. Three stops with high ridership were selected as example locations to model how new conceptual designs could be implemented, as well as the associated costs. The stop at Austin Park has already been improved and, depending on future resources, the designs for Kit's Corner and South Main Street at Lakeport Boulevard will also be implemented, greatly enhancing the rider experience on Lake Transit.

Lake County Pedestrian Facility Needs Study, 2019

The *Lake County Pedestrian Facility Needs Study*, also referred to as Lake Walks, was developed with the intention to improve the walking experience in Lake County by identifying the ten most important and feasible pedestrian improvements in each of the four study areas across the county. The four study areas were as follows: Clearlake, Lakeport, the unincorporated communities of the county, and the state routes (State Route (SR) 20, SR 29, SR 53, SR 175, and SR 281).

Although no funding was secured for any of the projects at the time the report was completed in 2019, the intention of identifying the priority projects was that then projects would be easier to implement once funded in the future. Many of the projects described in the Lake Walks report are located either along bus routes or nearby, therefore if realized, could encourage greater transit ridership by making it easier and safer for passengers to get to bus stops. Priority projects identified for Clearlake included pedestrian improvements along Huntington Ave and Arrowhead Road, Olympic Drive, Old Highway 53, Lakeshore Drive, and 18th Avenue at Dam Road, among others. Some of the pedestrian improvement projects identified for Lakeport were along Lakeshore Boulevard, South Main Street, Armstrong Street, Martin Street, South High Street, and South Forbes Street. In the unincorporated communities of Lake County, projects in central Lucerne, Lower Lake, downtown Middletown, and Kelseyville were identified for their potential to improve the experience of pedestrians. The Lake Walks plan also describes improvements on each of the state routes in Lake County that if implemented would greatly improve walkability.

Unmet Transit Needs (Fiscal Year (FY) 2019-20 - FY 2021-22)

The Transportation Development Act (TDA) requires that every region complete a formal hearing to assess unmet transit needs in the area prior to using any Local Transportation Funds (LTF). In Lake County, the Lake APC holds this hearing, with input from the Social Services Transportation Advisory Council (SSTAC). Per the definitions adopted by the Lake APC, an "unmet transit need" exists if a significant number of people are unable to reach a destination through existing resources or at a low to moderate cost. Concerns that are found to be both "unmet transit needs" and "reasonable to meet" are addressed in the Lake Transit Authority's (LTA) budget and work plan for the upcoming year. The Lake APC considers an unmet transit need to be "reasonable to meet" if it meets all of the following criteria:

- Funds are available, or there is a reasonable expectation that funds will become available; and,

- Benefits of services, in terms of number of passengers served and the severity of needs, justify costs; and
- With the added service, the transit system as a whole will be capable of meeting the TDA fare revenue/operating cost requirements; and
- Transit services designed or intended to address an unmet transit need shall not duplicate transit services currently provided either publicly or privately; and
- The claimant expected to provide the service shall review, evaluate, and indicate that the service is operationally feasible, and vehicles shall be currently available in the marketplace.

Findings

In FY 2019-20, there were eight potential unmet transit needs considered by the Lake APC and SSTAC. Six of these needs were found to qualify as an unmet need by definition. One unmet need was already being addressed, as the LTA was already planning to implement Non-Emergency Medical Transportation (NEMT) to out-of-county locations later in 2019. In regard to a request for NEMT services after business hours, it was undetermined whether this need was reasonable to meet and further research by either the LTA, Lake Links, or the Lake APC was recommended. Unmet needs that were determined unreasonable to meet but suggested for consideration in the next Lake County TDP included Sunday service and service to Spring Valley. The remaining two unmet needs were not reasonable to meet due to financial constraints and limited demand.

In both FY 2020-21 and FY 2021-22, seven of the eight potential unmet transit needs were the same as in FY 2019-20. The new unmet need considered during both FY 2020-21 and FY 2021-22 was the implementation of on-demand transit service to help seniors, persons with disabilities, and low-income individuals who are unable to use current public transportation services. This was determined to be an unmet need that was unreasonable to meet, however it was suggested that on-demand service alternatives be considered in the upcoming update to the Lake County TDP.

Chapter 4
REVIEW OF EXISTING TRANSPORTATION SERVICES

BACKGROUND

Lake County residents have multiple transportation services available to assist with their mobility needs. These services are provided by both public and private organizations and include fixed route, dial-a-ride (DAR), curb-to-curb, and non-emergency medical transportation options, spanning intra-city and intercity distances. Existing transportation services are reviewed in this chapter.

LAKE TRANSIT AUTHORITY

Administration and Management

The Lake Transit Authority (LTA) was established in 1996 through a Joint Powers Agreement between Lake County and the Cities of Clearlake and Lakeport to provide public transportation services for Lake County residents. The LTA Board of Directors consists of two representatives from the Lake County Board of Supervisors, two city council members from the City of Clearlake, two city council members from the City of Lakeport, and two representatives chosen from the community at large. This is also the same composition as the Lake Area Planning Council (Lake APC) board. The Board of Directors is responsible for making policy decisions. The actual transit service is managed by the LTA transit manager and operated under contract by Paratransit Services, Inc.

OVERVIEW OF LAKE TRANSIT AUTHORITY SERVICES

Lake Transit Fixed Routes

The LTA operates ten fixed routes: four local routes, four intercity routes, and two inter-county routes, as shown in Figure 7. Most of the routes begin weekday service between 6:00 AM to 7:00 AM, and finish between 7:00 PM and 8:00 PM. In March 2020, Saturday service was temporarily suspended, in addition to some other schedule reductions, due to the pandemic. Some of these schedule reductions remained during 2021 and 2022 due to difficulties hiring drivers. As of the time of writing this report, all schedule reductions remain in place, including the suspension of Saturday service. The following route descriptions describe LTA services as available in August 2022.

Along the fixed routes, Lake Transit provides deviated fixed route service, or “flex stops,” in areas where DAR service is unavailable. Passengers can request for the bus to travel up to one mile off the regular route by making a reservation at least one day in advance.

Route 1 – North Shore (Clearlake to Lakeport)

Route 1 connects Clearlake and Lakeport by traveling along the north shore of Clear Lake, serving Clearlake Oaks, Glenhaven, Lucerne, Nice, and Upper Lake along the route. Westbound service consists of ten runs, beginning at 7:00 AM and ending at 7:16 PM. Eastbound service consists of 11 runs, beginning at 6:35 AM and ending at 8:50 PM. Route 1 is shown in Figure 8 with the LTA system and in Figure 9 in reference to activity centers identified in Chapter 2.

Figure 8
Lake Transit Routes

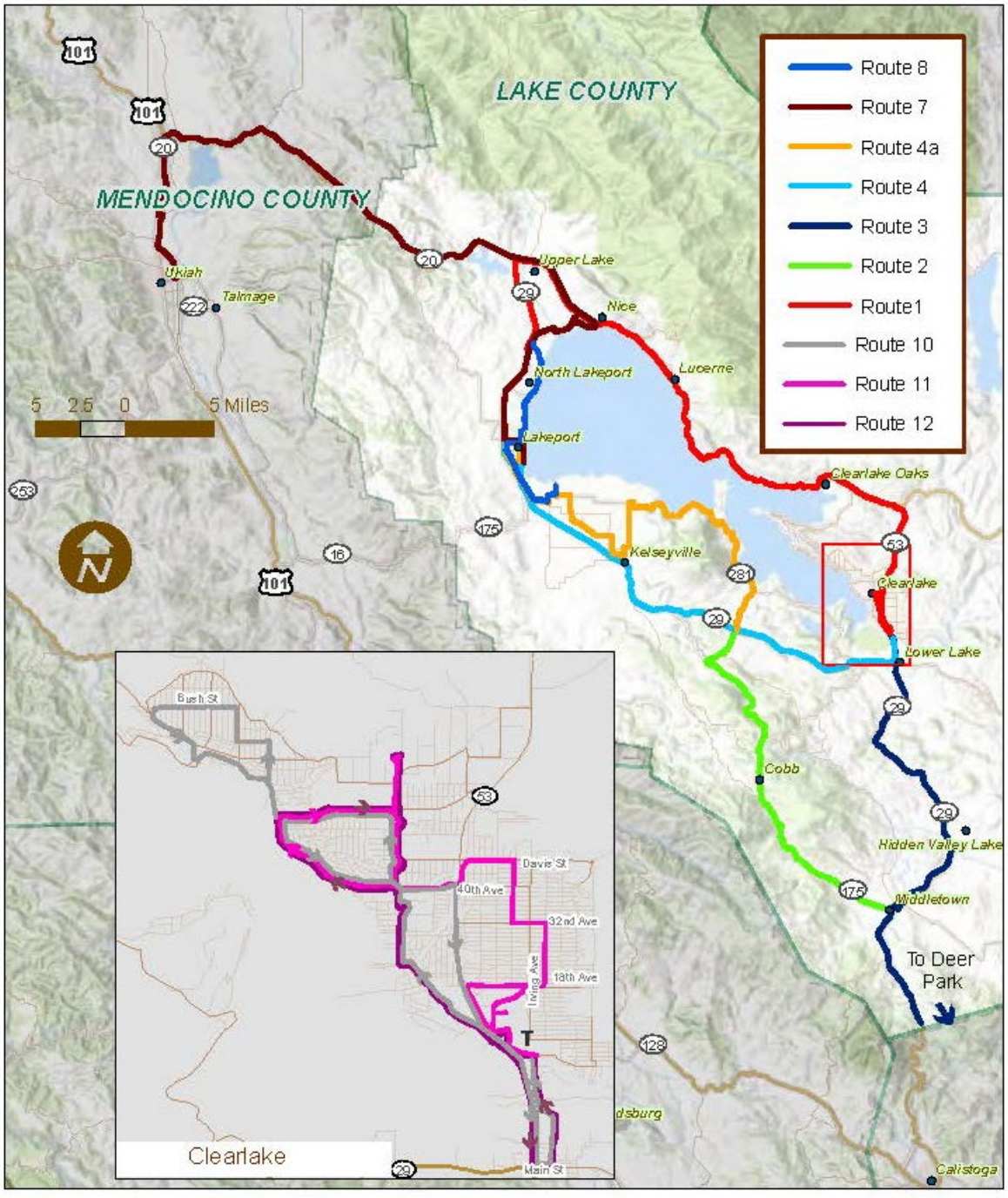


Figure 9
Upper Lake, Lucerne and West Shore Activity Centers

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Route 2 – Highway 175 – Kit's Corner to Middletown

Route 2 serves communities along the SR 175 corridor between Middletown and Kit's Corner. At the time of writing, one roundtrip is completed per day, with the northbound run beginning at 10:35 AM and the southbound run ending at 12:26 PM back in Middletown. Route 2 is shown in Figure 8.

Route 3 – Highway 29 – Clearlake to Deer Park

Route 3 provides intercounty service between Clearlake and Deer Park in Napa County via Middletown along SR 29. This route is valuable as passengers have the ability to connect to Vine Transit in Napa County, which in turn provides the ability to connect to other services that travel to the Bay Area. Four roundtrips are made daily to Calistoga, with two of these roundtrips going even further to Deer Park and back to Clearlake. Southbound service begins at 6:10 AM in Clearlake and ends at 5:55 PM in Calistoga. Northbound service begins at 7:32 AM in Calistoga and ends at 6:59 PM in Clearlake. This route is partially funded by the Federal Transit Administration (FTA) 5311(f) Intercity Transit Bus Program as Route 30, a combination of Routes 1 and 3. The portion of Route 3 within Lake County is shown in Figures 8 and 11.

Route 4 – South Shore (Clearlake to Lakeport)

Route 4 is another service that provides connectivity between Clearlake and Lakeport, but this route travels along the south shore of Clear Lake. Route 4 passes by Kit's Corner and also stops in Kelseyville along the way. Timed transfers with Route 7 to Ukiah are possible. There are eight westbound runs and 7 eastbound runs daily, with westbound service occurring between 6:00 AM to 5:49 PM and eastbound service occurring between 6:45 AM to 7:19 PM. Figures 8 and 10 show Route 4 in reference to other routes and Lake County activity centers.

Route 4a – Soda Bay (Kit's Corner to Lakeport)

In the past, Route 4a has served the Soda Bay area, traveling between Kit's Corner and Lakeport (Figure 10). Service was suspended originally in March 2020 due to the pandemic and again in March 2022 due to staffing shortages.

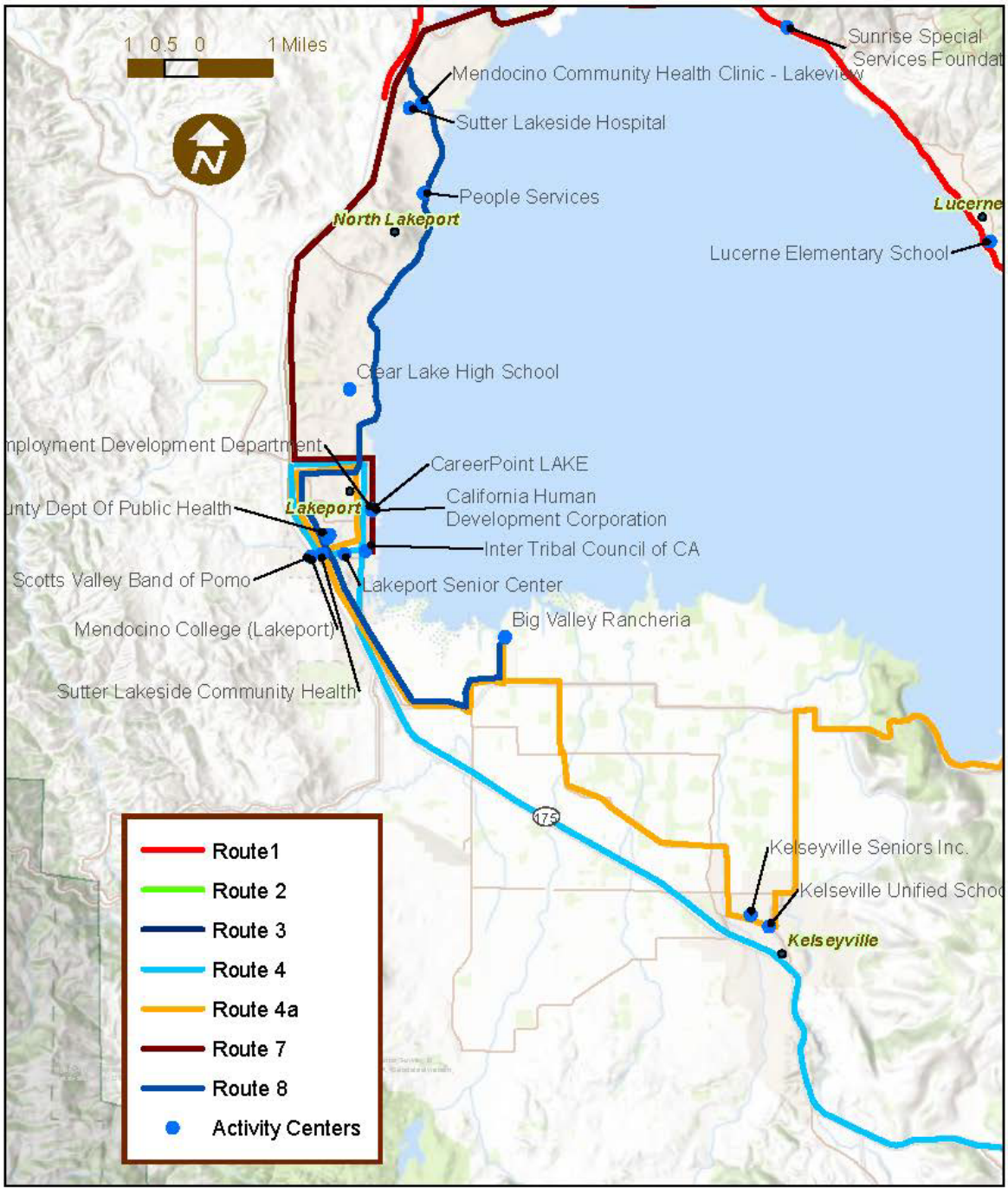
Route 7 – Lakeport to Ukiah

Route 7 completes three roundtrips daily between Lakeport and Ukiah, which is in Mendocino County, via Robinson Rancheria and Upper Lake. There are multiple transfers available to passengers on Route 7: Route 4 in Lakeport, Route 1 in Upper Lake, and Greyhound, Amtrak, and Mendocino Transit Authority in Ukiah. Three roundtrips are completed daily between 8:00 AM to 6:26 PM. This route is part of LTA's 5311 (f) Route 40, which is a combination of Routes 4 and 7.

Route 8 – Lakeport City

Route 8 provides service to the greater Lakeport area. Each day, two buses complete roundtrips in opposite directions on hourly headways between Konocti Vista Casino and Sutter Lakeside Hospital beginning at 7:30 AM and ending at 7:50 PM. Route 8 is shown in Figures 8 (other routes) and 10 (activity centers).

Figure 10
Lakeport and West Shore Activity Centers



Route 10 – Clearlake – Clearlake Park/North Loop

Route 10 operates within the City of Clearlake and the unincorporated community of Lower Lake, starting at Walmart and serving Clearlake Park, Old Highway 53, Lower Lake High School, and Lake County Social Services. Route 10 runs on hourly headways between approximately 5:00 AM and 7:30 PM. Figure 11 shows Route 10 in context with Clearlake activity centers identified in Chapter 2.

Route 11 – Clearlake – The Avenues Loop

Route 11 also starts at Walmart and then serves the Clearlake residential neighborhood known as "The Avenues," as well as Walnut Grove Apartments, the Senior Center, Woodland College, and Lakeshore Drive. Route 11 runs along Lakeshore Drive in the opposite direction than Route 10. Route 11 runs on hourly headways between roughly 6:00 AM to 7:30 PM, with one earlier reduced run beginning at 5:30 AM. Route 11 is shown in Figure 11.

Route 12 – Clearlake – Lower Lake/South Loop

The final local Clearlake route is Route 12, which runs along some of the same roads as Routes 10 and 11. Route 12 runs on hourly headways from 11:00 AM until 3:49 PM, starting at Walmart and then travelling south to Lower Lake before returning to Walmart and then traveling north along Old Highway 53 to Austin Park, Burns Valley Mall, and the Senior Center before returning to Walmart again. Figure 11 shows Route 12 with the other Clearlake routes and local activity centers.

Lake Transit Dial-a-Ride (DAR)

LTA offers DAR services in both Clearlake and Lakeport during the same days and hours as local bus routes. DAR requires reservations, with passengers eligible for American Disability Act (ADA) paratransit services receiving priority consideration as long as they call one day or more in advance. Passengers can use DAR for door-to-door service within Clearlake and Lakeport city boundaries.

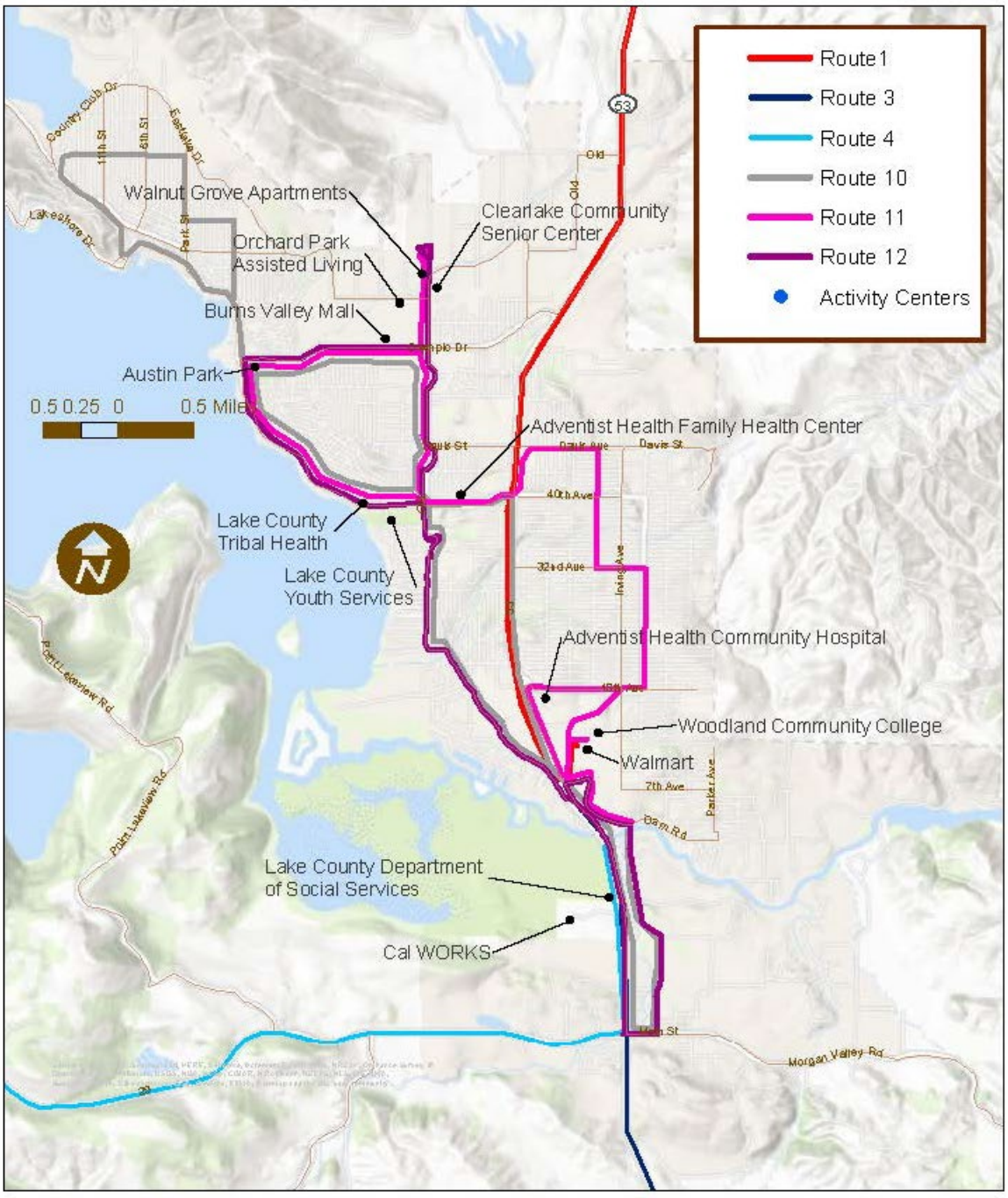
Lake Transit Transfer Opportunities

Lake Transit passengers have the ability to transfer to other routes at key transfer locations across the county. These key locations, and the routes served at each, are described below:

- Walmart (Clearlake): Routes 1, 3, 4, 10, 11, and 12
- Third and Main Street (Lakeport): Routes 4, 4a, 7, and 8
- Kit's Corner (Kelseyville): Routes 2, 4, and 4a
- Sutter Lakeside Hospital (Lakeport): Routes 1 and 8
- Sentry Market (Nice): Routes 1 and 7

LTA provides passengers with important opportunities to transfer to other transit services through the intercounty routes (Routes 3 and 7). In Ukiah, passengers can transfer to Mendocino Transit Authority, Greyhound, and Amtrak. From Calistoga and Deer Park, passengers can transfer to Vine Transit. Vine Transit can bring passengers further south to Napa where it is possible to make connections to other services onwards to the Bay Area.

Figure 11
Clearlake Activity Centers



Lake Transit Fare Structure

The Lake Transit fare structure is summarized in Table 8. Passengers are able to pay their fare with cash or by using a bus pass purchased at either Lake Transit or one of the designated locations (all grocery stores) in Cobb, Clearlake, Hidden Valley, Lakeport, Lucerne, Middletown, and Nice. Bus drivers also have the ability to sell Punch Passes and System Weekly Passes. Electronic payment systems have not been implemented at this time, so passengers cannot pay electronically onboard. Further details on Lake Transit fares can be found in the table below.

Table 8: Lake Transit Fare Structure

Cash Fares			
		General Public	Discount[2, 3]
Local	Bus Routes	$1.25	$0.75
	Flex Stop Adds	$5.00	$0.75
Regional - Bus Routes	Bus Routes	$2.25	$1.50
	Flex Stop Adds	N/A	$1.25
Mendocino & Napa Counties	Bus Routes	$5.00	N/A
Dial-a-Ride	Same Day Service	N/A	$3.00
	One Day Advance Reservation	N/A	$2.50

Bus Passes	
Punch Pass - $11 in Fares	$10.00
Monthly Fast Pass - Unimited Rides (in Lake County)	$40.00
System Weekly Pass - Unlimited Rides (Lake, Mendocino, and Napa Counties)	$20.00
Summer Cruisin' Pass- Unlimited Rides between 6/1 to 9/15[4]	$20.00

Source: LTA.

Note 1: Up to two children (age 5 or under) may ride free with a paying adult.

Note 2: Seniors (65+), Disabled, and Medicare card holders are all eligible for discounted fares with supplemental verfication.

Note 3: Up to two children (ages 6 to 12) may ride for a discounted fare when with a paying adult.

Note 4: Only eligible for riders ages 7 to 18.

Note 5: To transfer a route with a higher fare, passengers must pay the difference. Passengers can transfer free of charge to an equal or lower priced route.

LAKE TRANSIT MARKETING EFFORTS

Online Materials

The Lake Transit website contains a plethora of information which can be navigated by clicking on any of the tabs at either the top or bottom of the homepage. These tabs direct visitors to general information, route maps and schedules, DAR information, payment information, and contact information. News bulletins are featured in a side bar on the website, and below the bulletins is another navigation menu to take users to information about Title VI, advertising, related transportation organizations and information, and plans/policies. A Trip Planner tool is included at the very bottom of the website. It is possible to navigate to the Lake APC website from the LTA website. Both the LTA and Lake APC websites have information about public meetings. The Lake APC website has more detailed information about public plans and related studies.

Print Materials

Printable schedules are available for each fixed route on the LTA website. Staff uploaded updated files after the service schedule was changed in February 2022, but as of the time of writing there have been no printable files uploaded reflecting schedule changes made in March 2022. Additionally, Lake Transit has printed riders' guides available at the dispatch office. Flyers are occasionally printed and put on the buses to promote pass deals, public outreach, and service changes.

Phone Information

People can call Lake Transit for general information or to schedule a flex stop or DAR reservation. The phone number is posted on the website, Facebook, and at bus stops. It is also possible to call a specific line to get transit information in Spanish or other languages.

Social Media

LTA established a Facebook account in January 2021 to provide important news updates and information to passengers and local residents. Posts have been used to advertise public outreach, service detours, the Summer Cruisin' Program, and LTA employment opportunities. As of early August 2022, the Facebook account had 181 followers. Currently, LTA does not have any other form of social media (Instagram, Twitter, etc.). The public is allowed to comment on posts, and staff respond to questions left in the comments as time allows.

Outreach Activities and Events

Outreach has been limited across the entire US in recent years due to the ongoing COVID-19 pandemic. While the Lake APC and LTA have continued to conduct public outreach, especially related to current projects, these efforts have mostly consisted of virtual meetings and surveys.

LAKE TRANSIT CAPITAL ASSETS

Vehicles

As of August 2022, the LTA has a fleet of 32 vehicles (vehicle ID 1408 was donated to Adventist Health Clearlake as of May 2022). Table 9 describes the entire LTA fleet. The vehicles range in capacity from six to twenty-nine passengers and the vast majority are wheelchair accessible. Five of the vehicles are due for replacement due to mileage, but there are plans to replace four of these vehicles with funds from 5339 (a) grants. Ten vehicles will need to be replaced during the planning period due to age.

At this point in time, the Lake Transit fleet does not include any electric or hydrogen vehicles. LTA will need to consider the California Air Resources Board (CARB) Innovative Clean Transit Rule requirements for Zero Emission Buses (ZEB), which will go into effect during this planning period (2023-28). As a small transit agency, LTA will be required to submit a ZEB Rollout Plan by July 1, 2023, and by 2026 at least 25 percent of new bus purchases must be ZEBs (CARB, 2019). Funding for zero emission buses was jumpstarted in 2020 when LTA received a grant from the Transit and Intercity Rail Capital Program to design a new transit center in Clearlake. A portion of these grant funds have been allocated for the purchase of four hydrogen buses and the installation of fueling/charging infrastructure for both hydrogen and electric vehicles.

Passenger Amenities

Public outreach efforts over the years have consistently demonstrated passengers' desires for improved maintenance and amenities at LTA bus stops. The Bus Passenger Facilities Plan (2019), described in Chapter 3, compiled an inventory of existing Lake Transit stops and amenities, recommended new or replacement facilities, and listed priority areas for improvements. The Bus Passenger Facilities Plan found that there are 311 unique bus stops served by Lake Transit: 304 in Lake County, 4 in Mendocino County, and 3 in Napa County. Over 80 percent of stops were found to have a sign and 94 percent had a sign mounting pole. Benches provided by either Lake Transit or a nearby organization were present at only 21 percent of stops. Shelters were present at 19 percent of stops. Less than half of stops were found to have adequate lighting, ADA access, or shade. Although a stop may have had an amenity, the amenity itself was not necessarily in a good or usable condition.

Bus stop improvements were recommended based on the amenities and relative passenger activity at the stop. Since the completion of the plan, signpost replacements, bus stop shelter installations, and the implementation of a bus turnout near Austin Park have been completed. The completion of a new transit center within the City of Clearlake, which will replace the transfer site in the Walmart parking lot, will also greatly improve the experience of LTA passengers. This project will include the construction of a transit center at the southwest corner of Dam Road Extension and South Center Drive and pedestrian improvements in the area. The transit center will have bus bays, covered breezeways for waiting passengers, staff facilities, restroom facilities, bike parking, and park-and-ride spaces. Lake APC was recently awarded a Transit and Intercity Rail Capital grant for this project.

Table 9: Lake Transit Vehicle Fleet

Agency ID	Make	Model	Year	Mileage	Capacity (w/o driver)	Est. Replacement Date: Year	Est. Replacement Date: Miles to replacement	Being replaced with 5399 funds?
1401	Glaval	Legacy	2014	168,736	16	2020	31,264	Yes
1402	Glaval	Legacy	2014	244,361	27	2021	Past due	Yes
1403	Glaval	Legacy	2014	250,504	27	2021	Past due	Yes
1404	Glaval	Legacy	2014	305,082	27	2021	Past due	Yes
1405	Glaval	Legacy	2014	315,029	27	2021	Past due	Yes
1408	Ford	E-350	2014	50,011	8	--	99,989	Donated[2]
1501	Glaval	--	2015	180,566	29	--	19,434	--
1502	Glaval	--	2015	247,185	29	--	Past due	No plans
1601	Glaval	Legacy	2017	85,841	27	2023	114,159	No plans
1602	Glaval	Legacy	2017	179,361	27	2023	20,639	No plans
1701	Goshen	Impulse	2017	160,082	18	2024	39,918	No plans
1702	Goshen	Impulse	2017	159,253	18	2024	40,747	No plans
1703	Goshen	Impulse	2017	124,031	18	2024	75,969	No plans
1704	Goshen	Impulse	2017	153,196	18	2024	46,804	No plans
1705	Goshen	Impulse	2017	154,424	18	2024	45,576	No plans
1706	Goshen	Impulse	2017	167,047	18	2024	32,953	No plans
1707	Goshen	Impulse	2017	149,231	18	2024	50,769	No plans
1708	Goshen	Impulse	2017	148,198	18	2024	51,802	No plans
1709[3]	Mobility Ventures	--	2016	32,207	6	--	67,793	No plans
1710[3]	Mobility Ventures	--	2016	26,146	6	--	73,854	No plans
1711	Glaval	--	2017	104,859	27	--	95,141	No plans
1712	Glaval	--	2017	88,054	27	--	111,946	No plans
1713	Glaval	Legacy	2017	169,279	27	--	30,721	No plans
1801	Glaval	Legacy	2019	47,075	27	--	152,925	No plans
1901[3]	Ford	--	2018	54,332	7	--	45,668	No plans
1902	Starcraft	--	2019	26,323	7	--	173,677	No plans
1903	Starcraft	--	2019	22,224	11	--	177,776	No plans
1904	Glaval	--	2019	21,158	8	--	178,842	No plans
1905	Glaval	--	2019	25,651	--	--	174,349	No plans
1906	Glaval	--	2019	32,381	11	--	167,619	No plans
2101	Glaval	--	2020	5,840	27	--	194,160	No plans
2102	Glaval	--	2020	5,621	27	--	194,379	No plans
2103	Glaval	--	2020	4,893	27	--	195,107	No plans

Source: Lake Transit Fleet Informaton (3/28/22)

Note 1: Mileage checked in 8/2021 for all vehicles except ID #1401 and #1408, which were checked in 2019

Note 2: Donated to Adventist Health Clearlake in May 2022

Note 3: Only used for NEMT program

Operations and Maintenance Facilities

Most Lake Transit buses are stored at the Operations and Maintenance Facility in Lower Lake, with a few vehicles being stored at Lake County's corporate yard in Lakeport. Dispatch is also located at LTA's Lower Lake Facility. Additional outdoor security cameras were installed at the Operations and Maintenance Facility in March 2022 to enhance security. Paratransit Services, Inc., provides staff for maintenance through its operations contract with LTA.

LAKE TRANSIT RIDERSHIP ANALYSIS

LTA ridership, both systemwide and by route, is an important metric to consider when planning any potential changes to the transit system. Ridership metrics are analyzed in this section.

Annual Ridership

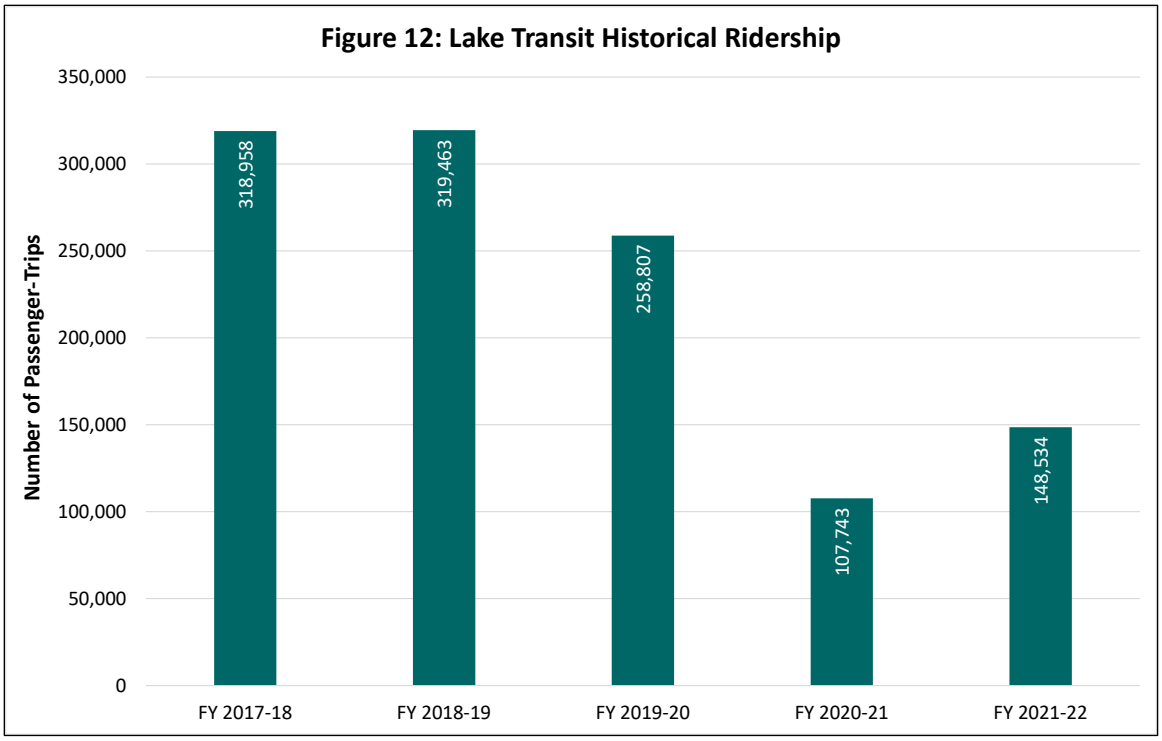
Transit systems across the nation have been experiencing declining ridership for approximately ten years. At first, this decline in ridership was in part due to low interest rates that made it easier for many to purchase a car as well as low gas prices. However, in recent years the COVID-19 pandemic has been the greatest influence on ridership, as people remained home and avoided public settings.

Lake Transit's ridership data for the last five fiscal years reflects the dramatic impacts of the COVID-19 pandemic (Table 10 and Figure 12). Annual systemwide ridership was approximately 319,000 in both Fiscal Year (FY) 2017-18 and FY 2018-19. Then, FY 2019-20 saw a 19 percent decrease in ridership compared to the year prior due to the beginning of the COVID-19 pandemic in March 2020. FY 2020-21, the first full year of the pandemic, saw 58 percent less ridership than just one year before and marked a 66 percent decrease compared to FY 2017-18. However, FY 2021-22 saw a slight rebound in Lake Transit ridership as pandemic restrictions were lifted and vaccines made more widely available. Although ridership increased by 38 percent in FY 2021-22 over FY 2020-21, ridership was still far below pre-COVID levels. Overall, systemwide ridership experienced a net decrease of 53 percent over the five years considered.

Table 10: Lake Transit Historical Ridership
FY 2017-18 - FY 2021-22

	Fiscal Year					Change 2017-18 to 2021-22	
	2017-18	2018-19	2019-20	2020-21	2021-22	#	%
Route 1	73,757	72,565	58,396	24,697	36,775	-36,982	-50.1%
Route 2	3,722	2,668	2,011	35	1,024	-2,698	-72.5%
Route 3	16,215	16,232	10,148	3,072	4,893	-11,322	-69.8%
Route 4	29,807	30,715	24,712	8,365	11,109	-18,698	-62.7%
Route 4a	4,024	4,691	3,009	59	1,026	-2,998	-74.5%
Route 7	12,845	13,119	10,997	4,311	5,839	-7,006	-54.5%
Route 8	37,416	35,675	30,539	12,833	18,622	-18,794	-50.2%
Route 10	62,774	65,657	56,126	28,024	37,106	-25,668	-40.9%
Route 11	45,358	47,416	42,941	21,900	25,895	-19,463	-42.9%
Route 12	24,290	22,502	13,171	--	1,765	-22,525	-92.7%
Clearlake Dial-a-Ride	4,813	4,737	3,865	2,831	2,659	-2,154	-44.8%
Lakeport Dial-a-Ride	3,937	3,486	2,892	1,616	1,811	-2,126	-54.0%
Total Systemwide	**318,958**	**319,463**	**258,807**	**107,743**	**148,534**	**-170,424**	**-53.4%**

Source: Late Transit LTA Compilation Forms, 2017-18 - 2021-22
Note 1: Routes 2, 4a, and 12 were not in operation for either the entirety or a portion of FY 2020-21 and FY 2021-22.



While the decrease in ridership was experienced across all LTA services, some routes were more impacted than others (Table 10 and Figure 13). During the last five fiscal years, the Clearlake DAR experienced only a net 45 percent decrease in ridership while Lakeport DAR ridership declined by 54 percent. Of the local routes in operation throughout the pandemic, Routes 8, 10, and 11, as well as Route 1 experienced a decrease in ridership of between 40 to 50 percent over the past five years. Route 3 saw the greatest decline in annual ridership of those routes which remained in operation throughout the pandemic (about 70 percent). Routes 2, 4a, and 12 saw the greatest decreases in annual ridership because they were not in operation for large portions of FY 2020-21 and FY 2021-22 due to the pandemic or schedule reductions made due to staffing shortages.

Annual Ridership by Month

Ridership by month for January 2018 through June 2021 is presented in Figure 14. As demonstrated by the data, LTA ridership stayed relatively consistent throughout the year prior to the COVID-19 pandemic, meaning most passengers used the service at similar levels throughout the entire year. The months with the lowest ridership were February, July, November, and December. Lower ridership totals in these months may have been due to a combination of factors, including but not limited to school vacations, holidays, and simply less service days in the month.

The beginning of the COVID-19 pandemic is strikingly obvious in Figure 14, where 2020 monthly ridership plummeted from 26,797 individuals in February down to 7,933 individuals in April. The remainder of 2020 saw consistently lower ridership compared to pre-pandemic levels, with most months seeing between 8,000 to 9,000 boardings. Data for 2021 and the first half of 2022 followed very similar patterns, with ridership on an upwards trend in June 2022 but not yet at 2019 levels.

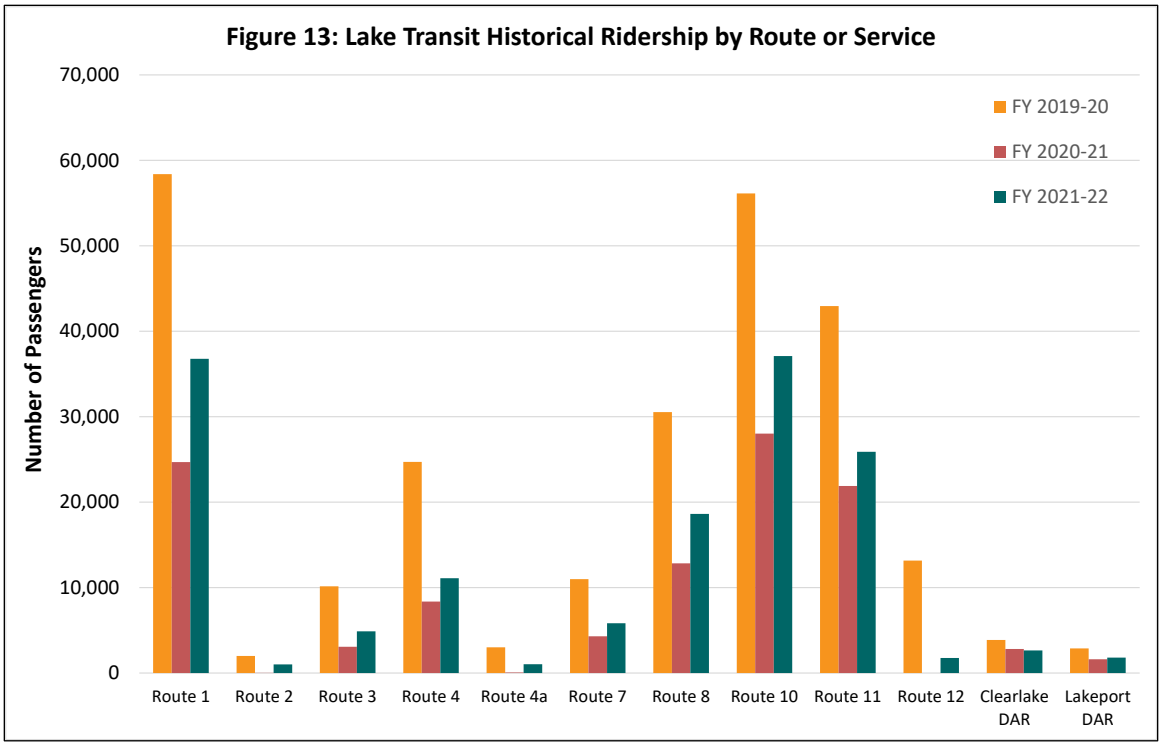


Figure 13: Lake Transit Historical Ridership by Route or Service
70,000
60,000
50,000
40,000
30,000
20,000
10,000
0
Number of Passengers
FY 2019-20
FY 2020-21
FY 2021-22
Route 1
Route 2
Route 3
Route 4
Route 4a
Route 7
Route 8
Route 10
Route 11
Route 12
Clearlake DAR
Lakeport DAR

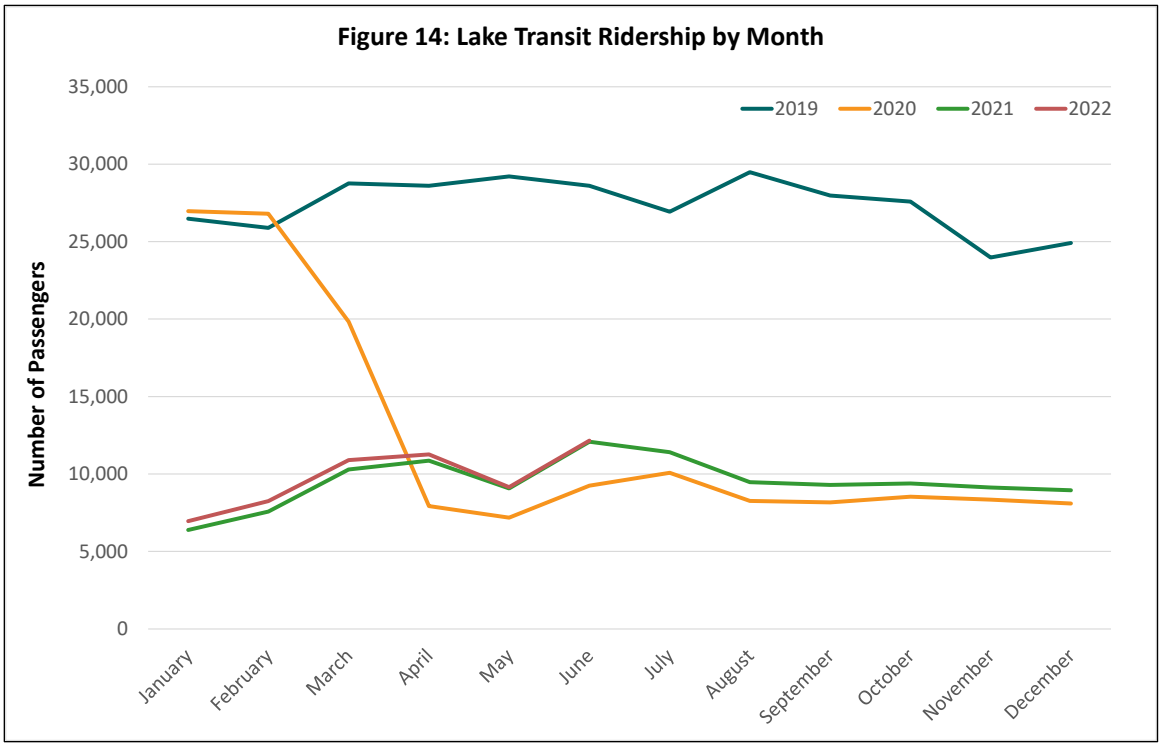


Figure 14: Lake Transit Ridership by Month
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
Number of Passengers
2019
2020
2021
2022
January
February
March
April
May
June
July
August
September
October
November
December

Boardings and Alightings by Stop

The LTA system includes 311 bus stops, some of which are used by multiple routes. Drivers stop at these established locations along the routes as well as flex stops and "flag stops," (locations where either the passenger flags down the bus or the passenger talks to the bus driver beforehand to arrange to be dropped off). Understanding where passengers are boarding and alighting most frequently is valuable information that can provide insight on how to potentially implement bus stop improvements as described in the Bus Passenger Facilities Plan (2019). A knowledge of where passengers are most frequently boarding and alighting could also inform future route changes.

To identify bus stops with high levels of passenger activity, trained associates recorded boardings and alightings the week of May 23, 2022, as part of the on-board survey effort. Table 11 presents estimated daily boardings as calculated from the boarding data recorded.

Table 11 shows the stops with the greatest number of estimated daily boardings across the LTA system. Not surprisingly, the Walmart in Clearlake had the greatest activity across the LTA system. Other popular stops among passengers across LTA routes included Sutter Lakeside Hospital, Austin Park, Burns Valley Mall, Robinson Rancheria, and Twin Pine Casino. Highlights of the boarding results are shown in Table 11, and full results by route are included in Appendix A.

LAKE TRANSIT TRAVEL TIME ANALYSIS

To encourage increased transit ridership, passengers need to be able to trust that the bus will arrive at the time they expect. Passengers should also feel confident that they will be able to get to their final destination in a reasonable amount of time and without much hassle throughout the journey. This section first analyzes LTA's on-time performance before then considering how long it takes LTA passengers to travel between various locations in Lake County and how these times compare to typical travel times via car.

On-time Performance

The previous TDP (2015) outlined that a Lake Transit fixed route bus is considered "On-Time" if the bus arrives to the stop one minute early to five minutes late. LTA records on-time performance data for all fixed routes. Because FY 2020-21 data was analyzed, there is no data for Route 12 and there is only one month of data for Routes 2 and 4a. Only data points that represented buses *arriving* to the stop were analyzed. Results are shown in Table 12 and Figure 15.

The routes with the greatest on-time performance, or the greatest number of buses to arrive to the stop on-time, were Routes 2 and 4a. This is likely due simply to the fact that there were less datapoints to analyze. Routes 1, 3, and 11 recorded the worst on-time performance in terms of how many buses arrived on time to the stops, in part because each of these routes saw over 44 percent of buses arrive early. Approximately 20 percent of Route 7 buses arrived 5 minutes late or more.

Table 11: LTA Stops with Greatest Boarding and Alighting Activity Across All Routes

Bus Stop	Estimated Average Daily Boardings									
	Route 1	Route 2	Route 3	Route 4	Route 7	Route 8	Route 10	Route 11	Route 12	**Total**
Walmart (Clearlake)	24	0	5	3	0	0	40	24	6	103
Sutter Lakeside Hospital	22	0	0	0	0	29	0	0	0	51
3rd St & Main St (Lakeport)	0	0	0	5	23	15	0	0	0	43
Robinson Rancheria Resort & Casino	13	0	0	0	17	0	0	0	0	31
Burns Valley Mall	0	0	0	0	0	0	14	5	0	19
Austin Park	0	0	0	0	0	0	2	11	4	17
Veteran's Clinic	0	0	0	0	0	0	8	6	0	15
Adventist Health Family Clinic	0	0	0	0	0	0	0	11	0	11
Second St & Lake St (Lower Lake)	0	0	0	0	0	0	8	0	2	10
Safeway (Lakeport)	0	0	0	2	0	8	0	0	0	9
Cypress Ave & Old Hwy 53	0	0	0	0	0	0	9	0	0	9
Grocery Outlet (Lakeport)	0	0	0	6	0	2	0	0	0	8
Clearlake Post Office	0	0	0	0	0	0	5	3	0	8
Lower Lake High School	0	0	0	0	0	0	5	0	2	7
13th & SR 20 (Lucerne)	7	0	0	0	0	0	0	0	0	7
Lakeshore Blvd & Lange St	0	0	0	0	0	7	0	0	0	7
Twin Pine Casino	0	2	4	0	0	0	0	0	0	6
Running Creek Casino	6	0	0	0	0	0	0	0	0	6
11th & Bush St (Clearlake)	0	0	0	0	0	0	5	0	0	5
Lake County Tribal Health - Main Clinic	0	0	0	0	0	5	0	0	0	5
1st Ave & SR 20 (Lucerne)	5	0	0	0	0	0	0	0	0	5
Hospice Service of Lake County (Clearlake)	0	0	0	0	0	0	0	5	0	5
Clearlake Senior Center	0	0	0	0	0	0	0	4	1	5
2nd St & Bush St (Clearlake)	0	0	0	0	0	0	5	0	0	5
Mendo Mill (Clearlake)	0	0	0	0	0	0	4	0	1	5
Valero (Clearlake)	0	0	0	0	0	0	1	3	0	4
Clearlake Apartments	0	0	0	0	0	0	4	0	0	4
33rd Ave & Phillips Ave	0	0	0	0	0	0	0	4	0	4
Safeway (Clearlake)	0	0	0	0	0	0	0	4	0	4
9th & Main St	0	0	0	4	0	0	0	0	0	4
Lakeshore Dr & Old Hwy 53	0	0	0	0	0	0	4	0	0	4
Main St & SR 20 (Upper Lake)	4	0	0	0	0	0	0	0	0	4
Armstrong Road	0	0	1	0	0	0	2	0	0	4
Hidden Valley Water Company	0	0	3	0	0	0	0	0	0	3
Lake Transit	0	0	0	1	0	0	2	0	0	3
Nortpoint Mobile Home Park	0	0	0	0	0	3	0	0	0	3
Baylis Ave & Lakeshore Dr	0	0	0	0	0	0	3	0	0	3
Old Red Cross (Clearlake)	0	0	0	0	0	0	3	0	0	3
Kelseyville Lumber	0	0	0	3	0	0	0	0	0	3
Tower Mart (Lakeport)	0	0	0	0	0	3	0	0	0	3
Hinman Park	3	0	0	0	0	0	0	0	0	3
14th & SR 20 (Lucerne)	3	0	0	0	0	0	0	0	0	3
Orchard Shores	3	0	0	0	0	0	0	0	0	3
Pine St & SR 20	3	0	0	0	0	0	0	0	0	3
40th Ave & Phillips Ave	0	0	0	0	0	0	0	3	0	3
Ridge Lake Apartments - Commons	0	0	0	0	0	0	2	0	0	2
Lincoln Ave Bridge (Calistoga)	0	0	2	0	0	0	0	0	0	2
Bella Vista Apartments (Lakeport)	0	0	0	0	0	2	0	0	0	2
Lake County Social Services (Lower Lake)	0	0	0	0	0	0	0	0	2	2
Nice Post Office	2	0	0	0	0	0	0	0	0	2
Sentry Market	2	0	0	0	0	0	0	0	0	2

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 12: LTA Fixed Routes On-Time Performance

FY 2020-21

Good Performance | Poor Performance

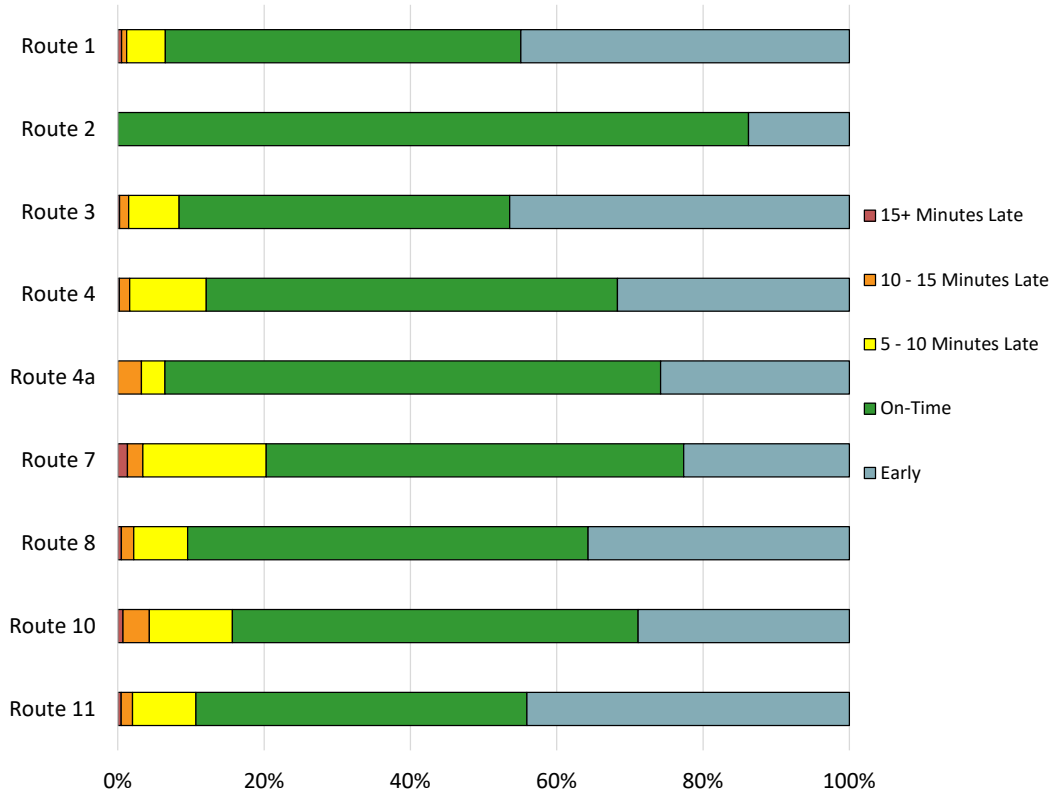
	More than 15 Minutes Late	10 to 15 Minutes Late	5 to 10 Minutes	On-Time[1]	Early
Route 1	0.5%	0.7%	5.3%	48.6%	44.9%
Route 2[2]	0.0%	0.0%	0.0%	86.2%	13.8%
Route 3	0.2%	1.2%	6.9%	45.2%	46.4%
Route 4[2]	0.2%	1.4%	10.5%	56.2%	31.7%
Route 4a	0.0%	3.2%	3.2%	67.7%	25.8%
Route 7	1.3%	2.1%	16.9%	57.0%	22.7%
Route 8	0.5%	1.7%	7.4%	54.7%	35.7%
Route 10	0.7%	3.6%	11.4%	55.4%	28.9%
Route 11	0.5%	1.5%	8.7%	45.2%	44.1%

Source: Lake Transit Authority

Note 1: Per the 2015 LTA Transit Development Plan, buses are considered on-time if they arrive to the stop 1 minute early to 5 minutes late.

Note 2: Routes 2 and 4a were only in operation for one month of the FY. Route 12 did not operate in FY 2020-21.

Figure 15: LTA Fixed Routes On-Time Performance (FY 2020-21)



Source: Lake Transit Authority

Note: Route 2 and Route 4a were only in operation for one month of the FY.

Travel Time Matrix

When evaluating a transit service, it is helpful to consider the travel experience from the perspective of the rider. Three key trip characteristics that influence an individual's opinion of the bus ride are the total travel time, the frequency of service, and the need to transfer between buses.

Travel times, service frequency, and transfers for six LTA bus stop locations (reflecting the Clearlake, Lakeport, and Upper Lake service areas) were analyzed as shown in Table 13. For each trip origin/destination pair, the existing route schedules were used to identify the fastest travel time possible to complete the trip. Once it was determined which buses would provide the fastest travel between each origin/destination pair, the frequency of the buses and whether a transfer was required were recorded.

Note that for many trips, the actual travel times vary between individual trip-departure times, as someone may have to wait for a bus much longer if they leave at a different time. If a transfer is required to reach the destination, a 10-minute penalty was added to the overall travel time to reflect this inconvenience. Tables 13 and 14 present the fastest travel time between each location assuming optimal conditions and no traffic. Key trends noticeable in Table 13 include:

- Individual trip times range from as short as 6 minutes and up to 106 minutes.
- Trips which require a transfer take on average 2.5 times as long as those that do not require a transfer.
- Within Clearlake, the length of the trip is not just dependent on where the person is going but also when they want to depart. There are multiple locations in Clearlake where at least two of the local routes stop, meaning that if someone misses their intended bus at one of these stops, they can wait, and another Clearlake local route will stop within the hour. However, as the routes are different the new bus may not be as direct to the individual's final destination.
- Stops within the City of Clearlake and the City of Lakeport are all served on a 60-minute frequency, with some stops being served on an a more frequent basis due to redundancy in the routes.
- It takes passengers over an hour to get from communities outside of Clearlake to stops in downtown, such as Austin Park, due to the need to transfer at Walmart.

Comparison of Auto and Transit Travel Times

Based on the travel time analysis, transit travel times were compared to auto travel times as calculated by Google Maps (Table 14). The ratio of transit to auto travel time was determined by dividing the values in Table 13 by the typical auto travel time for the same journey. A lower ratio is desirable, as this means the passenger is not sacrificing a large amount of time by taking the bus versus a personal vehicle (if they have one available). Trips with low ratios are those between Sutter Lakeside Hospital to Third and Main Street in Lakeport and between Austin Park and Walmart in Clearlake. The high ratio of travel times between Robinson Rancheria Resort and Casino and the stop at Third and Main Street in Lakeport signifies it is more convenient to travel by car versus the bus.

Table 13: LTA Travel Times, Transfer Requirements, and Service Headways

35 to 60 Minute Frequency	More Than 60 Minute Frequency

Travel Time in Minutes
T = Transfer Required

Origin Stop \ Destination Stop	Walmart (Clearlake)	Lake County Social Services	Austin Park	Robinson Rancheria Resort and Casino	Third and Main Street (Lakeport)	Sutter Lakeside Hospital
Walmart (Clearlake)		9	20	56	60	80
Lake County Social Services	6		11	72 T	45	96 T
Austin Park	12	23		80 T	75 T	104 T
Robinson Rancheria Resort and Casino	55	74 T	85 T		54 T	24
Third and Main Street (Lakeport)	49	54	79 T	19		16
Sutter Lakeside Hospital	76	66 T	106 T	21	10	

Source: LSC Transportation Consultants, Inc.

Table 14: Comparison of Auto and Transit Travel Times

LEGEND	4	Typical Auto Travel Times in Minutes[1]
	2.3	Ratio of Auto Travel Time to Transit Travel Time

Origin Stop \ Destination Stop	Walmart (Clearlake)	Lake County Social Services	Austin Park	Robinson Rancheria Resort and Casino	Third and Main Street (Lakeport)	Sutter Lakeside Hospital
Walmart (Clearlake)		4 *2.3*	8 *2.5*	38 *1.5*	*31* *1.9*	35 *2.3*
Lake County Social Services	*4* *1.5*		*8* *1.4*	*37* *1.9*	*29* *1.6*	*33* *2.9*
Austin Park	9 *1.3*	*10* *2.3*		37 *2.2*	*37* *2.0*	41 *2.5*
Robinson Rancheria Resort and Casino	38 *1.4*	*38* *1.9*	36 *2.4*		*13* *4.2*	8 *3.0*
Third and Main Street (Lakeport)	*31* *1.6*	*29* *1.9*	*35* *2.3*	*14* *1.4*		*10* *1.6*
Sutter Lakeside Hospital	35 *2.2*	*33* *2.0*	39 *2.7*	8 *2.6*	*10* *1.0*	

Source: LSC Transportation Consultants, Inc.

Note 1: Typical auto travel times calculated by using Google Maps

LAKE TRANSIT FINANCIAL REVIEW

Lake Transit Revenue Sources

LTA budgeted $7,042,522 in total revenues for FY 2021-22 (Table 15). Operating revenues were expected to total $4,549,544. LTA's farebox revenue represents passenger fares. Special fares consist of money contributed by the Lake County Social Services Department, the Redwood Coast Regional Center, and the St. Helena Hospital. Auxiliary transportation revenues represent funds earned from advertising fees. In all, revenues from fares, special fares, and advertising were budgeted to total $394,578 in FY 2021-22 (5.6 percent of total revenues). LTA also expected to receive operating revenues from the State Transit Assistance (STA), Low Carbon Transit Operations Program (LCTOP), and Federal Transit Administration (FTA) Section 5311 funds. All LCTOP funds in FY 2021-22 were allocated towards LTA's Solar Canopy capital project.

The greatest source of operations funding planned for FY 2021-22 was the Coronavirus Response and Relief Supplemental Appropriations Act of 2021 (CRRSAA) (15 percent of overall revenues). Lake Transit was also prepared for over $1.3 million in FY 2021-22 funding through different parts of the Coronavirus Aid, Relief, and Economic Security (CARES) Acts I and II. Together, funding from pandemic relief legislation totaled over one third of LTA's budgeted revenues for FY 2021-22.

Capital revenues were budgeted to total $2,492,978 in FY 2021-22, or 35 percent of total revenues. The largest source of capital funds expected was FTA 5339 grant funding allocated for the purchase of new buses (16 percent of total revenues). Transportation Development Act (TDA) Local Transportation Funds (LTF) represented over 12 percent of LTA budgeted revenues for FY 2021-22, making it the third greatest revenue source overall.

Lake Transit Expenses and Cost Allocation

Table 16 shows a cost model developed based on LTA's actual operating expenses. In FY 2021-22, operating and administrative costs for LTA services totaled $2.9 million. The most expensive items were the operations and maintenance contracts, which cost over $2.4 million in total.

Operating costs were analyzed to assess how varying factors impact said costs. Each cost in Table 16 is allocated to the quantity (vehicle service hour, vehicle service mile or fixed cost) upon which it is most dependent. For instance, fixed costs such as website maintenance do not change depending on the level of service offered while fuel costs are dependent on vehicle service miles. When divided by the total quantity of service budgeted, a cost equation can be developed. For LTA, this equation is:

FY 2021-22 Operating Cost Model = $35.81 x annual vehicle service hours +
$0.59 x annual vehicle service miles +
$1,275,622 in annual fixed costs

Adding the fixed costs plus hourly costs and then dividing by the number of vehicle service hours observed during the year provides an estimated hourly cost for both fixed and hourly expenses. This value, $70.80, is used to estimate allocated operating costs of the various LTA services in Table 18.

Table 15: Lake Transit Authority Budgeted Revenues FY 2021-22

Revenue Items

OPERATING REVENUES	
Farebox Revenue (Acct 7401)	$171,113
Special Fares (Acct 7402)	$147,465
Auxiliary Transportation Revenues	$76,000
Federal Transit Authority (FTA) Section 5311	$406,458
FTA Section 5311 (f)	$526,417
FTA Section 5311 (f) CARES Act Phase 1	$90,767
FTA Section 5311 CARES Act Phase 2	$763,382
FTA Section 5311 (f) CARES Act Phase 2	$495,482
FTA Section 5311 CRRSAA	$1,074,575
Low Carbon Transit Operations Program (LCTOP)	$331,692
State Transit Assistance (STA)	$466,193
CAPITAL REVENUES	
FTA 5339 Capital - Bus Replacement (2017 & 2019)	$1,129,042
Local Transportation Fund (LTF)	$901,386
LTF Carryover (deferred revenue)	$0
State of Good Repair	$99,707
State of Good Repair Carryover	$116,931
Propostion 1B - PTMISEA Carryover	$201,292
Propostion 1B - CTSGP Carryover	$44,620
TOTAL REVENUES	**$7,042,522**

Source: Lake Transit Authority 2021/22 Budget

Table 16: FY 2021-22 Operating/Admin. Cost Model

Item	Total[1]	Fixed	Vehicle Revenue Hours	Vehicle Revenue Miles
Accounting and Legal Services	$6,043	$6,043		
Management Contract	$0	$0		
Operations & Maintenance Contracts	$2,429,077	$1,239,921	$1,189,156	
Printing	$3,539	$3,539		
Promotional Materials	$0	$0		
Advertising/Website	$60	$60		
Promotional Campaigns	$33	$33		
Fuel	$435,234			$435,234
Facility Maintenance, Rents and Leases, and Utilities	$24,795	$24,795		
Fleet Maintenance	$1,231	$1,231		
Total Expenses	**$2,900,012**	**$1,275,622**	**$1,189,156**	**$435,234**
Unit Quantities			34,811	740,155
Cost per Vehicle Service Hour			$35.81	
Cost per Vehicle Service Mile				$0.59
Cost per Vehicle Hour + Fixed Costs			$70.80	

Source: Lake Transit Authority 2021/22 Budget

Note 1: Total costs are based on actual values from FY 2021-22.

LAKE TRANSIT PERFORMANCE ANALYSIS

In this section, ridership levels and service statistics are considered in tandem with financial data to analyze Lake Transit's performance in key metrics that assess the productivity and efficiency of the entire transit system, as well as each route/service.

Performance by Year

Operating characteristics for the entire Lake Transit system over the last three fiscal years are presented in Table 17, Figure 16, and Figure 17. As previously discussed, Lake Transit ridership decreased drastically in just the last three years. However, data from FY 2021-22 indicates that Lake Transit ridership has begun to slowly rebound from the low levels experienced in FY 2020-21 (Figure 11). LTA decreased service levels in FY 2020-21 in response to reduced ridership during the pandemic, helping LTA lower operating costs in a year with reduced fare revenues. Lake Transit then increased service levels in FY 2021-22 to near the same levels as FY 2019-20, resulting in vehicle service hours and vehicle service miles only decreasing by 5 percent over the three years considered.

Table 17 shows how LTA operating costs increased by 9 percent over the last three fiscal years while fare revenues decreased by 33 percent. It is important to note that fare revenues in this table do not include auxiliary fare revenues generated from sources such as advertising. Although costs increased and revenues decreased, Lake Transit did an excellent job of keeping budget increases below the rate of inflation, estimated by the California Department of Industrial Relations as having been 12.8 percent from June 2019 to April 2022.

Table 17: LTA Operating Characteristics
FY 2019-20 - FY 2021-22

				Change 2019-20 to 2021-22	
	FY 2019-20	FY 2020-21	FY 2021-22	#	%
Vehicle Service Hours	36,404	20,726	34,811	-1,592	-4%
Vehicle Service Miles	786,273	428,038	740,155	-46,118	-6%
Passenger-Trips	258,807	107,743	148,534	-110,273	-43%
Allocated Operating Costs	$2,650,969	$2,215,450	$2,900,012	$249,044	9%
Allocated Fare Revenue	$443,254	$263,638	$296,498	-$146,756	-33%
Operating Subsidy	$2,207,715	$1,951,811	$2,603,514	$395,799	18%
Cost per Passenger-Trip	$10.24	$20.56	$19.52	$9.28	91%
Subsidy per Passenger-Trip	$8.53	$18.12	$17.53	$9.00	105%
Farebox Return Ratio	16.7%	11.9%	10.2%	-6.5%	-39%
Passenger-Trips per Hour	7.11	5.20	4.27	-2.84	-40%
Passenger-Trips per Mile	0.33	0.25	0.20	-0.13	-39%

Source: LTA Compilation Forms, FY 19-20 - FY 21-22; LTA Financial Summary 2019-20 - 2021-22

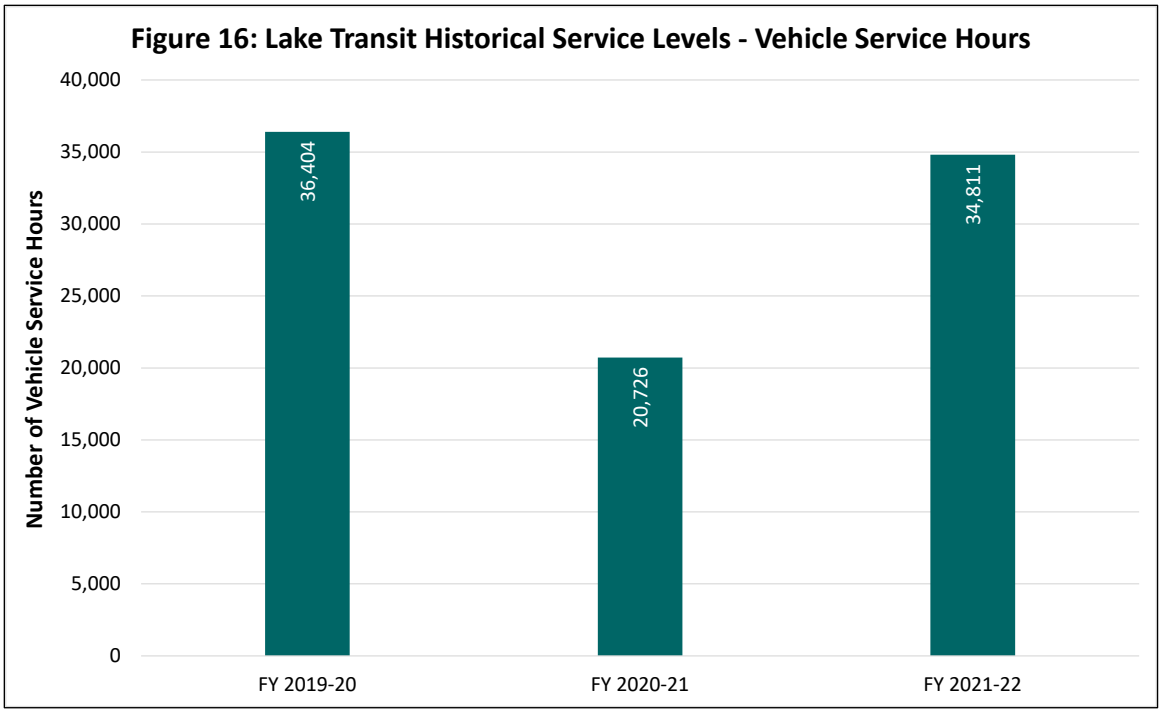


Figure 16: Lake Transit Historical Service Levels - Vehicle Service Hours
Number of Vehicle Service Hours
40,000
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
36,404
20,726
34,811
FY 2019-20
FY 2020-21
FY 2021-22

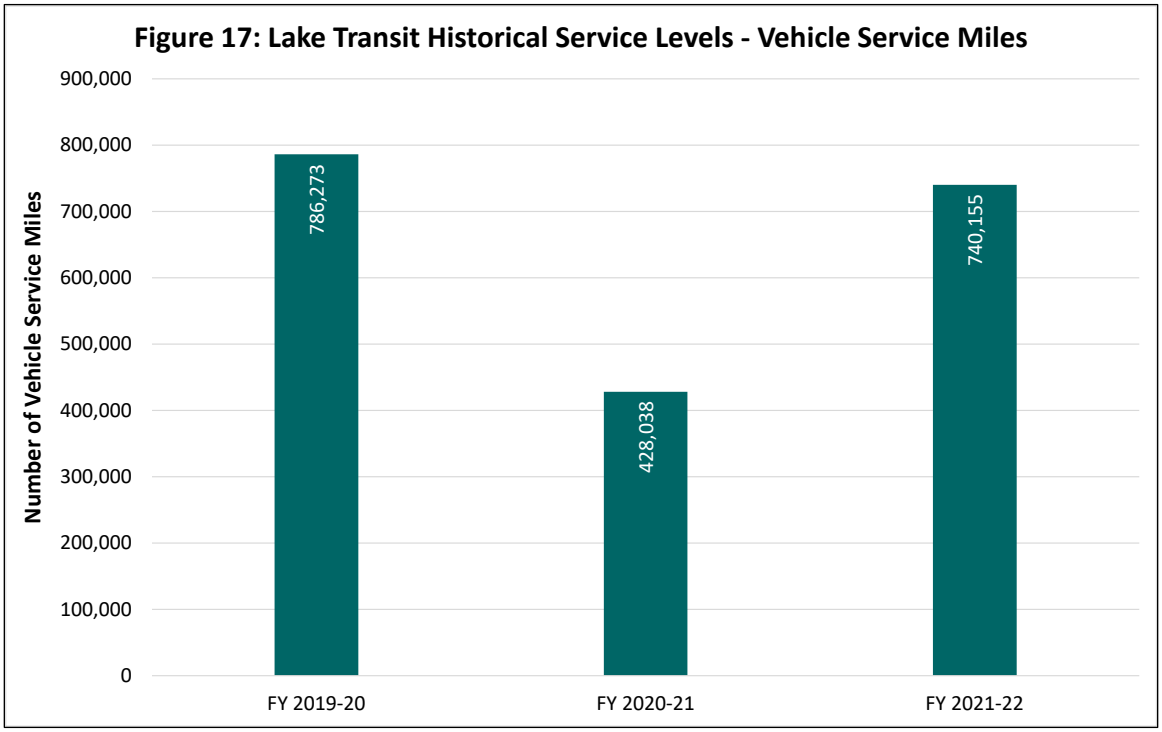


Figure 17: Lake Transit Historical Service Levels - Vehicle Service Miles
Number of Vehicle Service Miles
900,000
800,000
700,000
600,000
500,000
400,000
300,000
200,000
100,000
0
786,273
428,038
740,155
FY 2019-20
FY 2020-21
FY 2021-22

Systemwide, the number of passenger-trips completed per vehicle service hour and per vehicle service mile decreased at a slightly lesser rate than ridership (40 percent and 39 percent decreases, respectively) due to the slight decrease in service levels over time. The cost per passenger-trip and subsidy per passenger-trip both increased greatly over the three years due to decreased ridership and increased costs, but both of these metrics did decrease in FY 2021-22 over the previous year due to the return of some ridership. Notably, although Lake Transit's farebox return ratio has dipped below the organization's minimum standard of 15 percent since FY 2020-21 the farebox ratios have still remained above the TDA's minimum standard of 10 percent for rural transit systems.

Performance by Route

Operating Costs by Route

Operating costs by route were calculated by applying the cost model developed in Table 16 to FY 2021-22 operating statistics for each LTA service. As seen in Table 18, Route 1 was the most expensive Lake Transit route in FY 2021-22 ($640,831), followed by Route 8 ($422,988). Route 1 was substantially more expensive than Route 4, the only other intercity route in operation the whole year, because it completed double the amount of vehicle service hours and miles. Due to reduced schedules, Routes 2, 4a, and 12 each generated less than $100,000 in costs and were the cheapest routes. Routes 3, 7, 10, and 11 all generated between $200,000 to $300,000 in operating costs.

Fare Revenue by Route

It is important that each route generate revenues to offset operating costs and lower the operating subsidy required per passenger-trip. Allocated fare revenues, as presented in Table 18, represent the estimated sum of cash fares, COVID-19 subsidized fares, college fares, and special fares collected on that route. The overall pattern of fare revenues by route follows the same pattern as ridership by route, with Routes 1 and 10 receiving the greatest number of fares of all the LTA services (over $70,000 each). Route 1 collected more fare revenue than Route 10, likely because tickets cost more. Routes 2, 4a, and 12 generated the smallest amount of fares because they weren't in operation for all of FY 2021-22. Besides the fixed routes with reduced service levels, the two DAR services (Clearlake and Lakeport) collected the least amount of revenues (about $5,000 or less, each).

Operating Cost Per Passenger-Trip

Operating cost per passenger-trip is an indicator of the financial efficiency of the transit system, route, or service. During FY 2021-22, operating cost per passenger-trip varied from $7.90 to $127.07 across the LTA routes, with the total systemwide cost per passenger-trip equaling $19.52 (Table 18). Routes 2 and 4a were the two most expensive routes in terms of operating costs per passenger-trip, a result of low ridership during the few months these routes were in operation. If these two routes are excluded from calculations, then the cost per passenger-trip for all other fixed routes equaled $17.18 in FY 2021-22. The DARs cost per passenger-trip equaled $52.56.

Table 18: LTA Operating Characteristics by Route

FY 2021-22

	Route 1	Route 2	Route 3	Route 4	Route 4a	Route 7	Route 8	Route 10	Route 11	Route 12	Lakeport DAR	Clearlake DAR	Total
Vehicle Hours	7,396	1,479	2,606	3,647	1,129	2,289	5,243	3,682	3,723	559	1,376	1,681	34,811
Vehicle Miles	199,310	43,226	77,082	97,646	29,015	70,061	88,058	55,311	44,222	6,984	13,747	15,450	740,155
Passenger-Trips	36,775	1,024	4,893	11,109	1,026	5,839	18,622	37,106	25,895	1,765	1,811	2,659	148,534
Allocated Operating Costs	$640,831	$130,115	$229,837	$315,611	$97,003	$203,274	$422,988	$293,215	$289,621	$43,662	$105,491	$128,126	$2,900,012
Allocated Fare Revenue	$72,564	$2,046	$15,134	$22,206	$2,257	$14,721	$34,856	$70,609	$50,077	$2,363	$4,645	$5,020	$296,498
Operating Subsidy	$568,267	$128,069	$214,703	$293,405	$94,746	$188,553	$388,132	$222,606	$239,544	$41,298	$100,846	$123,106	$2,603,514
Cost per Passenger-Trip	$17.43	$127.07	$46.97	$28.41	$94.54	$34.81	$22.71	$7.90	$11.18	$24.74	$58.25	$48.19	$19.52
Subsidy per Passenger-Trip	$15.45	$125.07	$43.88	$26.41	$92.34	$32.29	$20.84	$6.00	$9.25	$23.40	$55.69	$46.30	$17.53
Farebox Return Ratio	11.3%	1.6%	6.6%	7.0%	2.3%	7.2%	8.2%	24.1%	17.3%	5.4%	4.4%	3.9%	10.2%
Passenger-Trips per Hour	4.97	0.69	1.88	3.05	0.91	2.55	3.55	10.08	6.96	3.16	1.32	1.58	4.27
Passenger-Trips per Mile	0.18	0.02	0.06	0.11	0.04	0.08	0.21	0.67	0.59	0.25	0.13	0.17	0.20

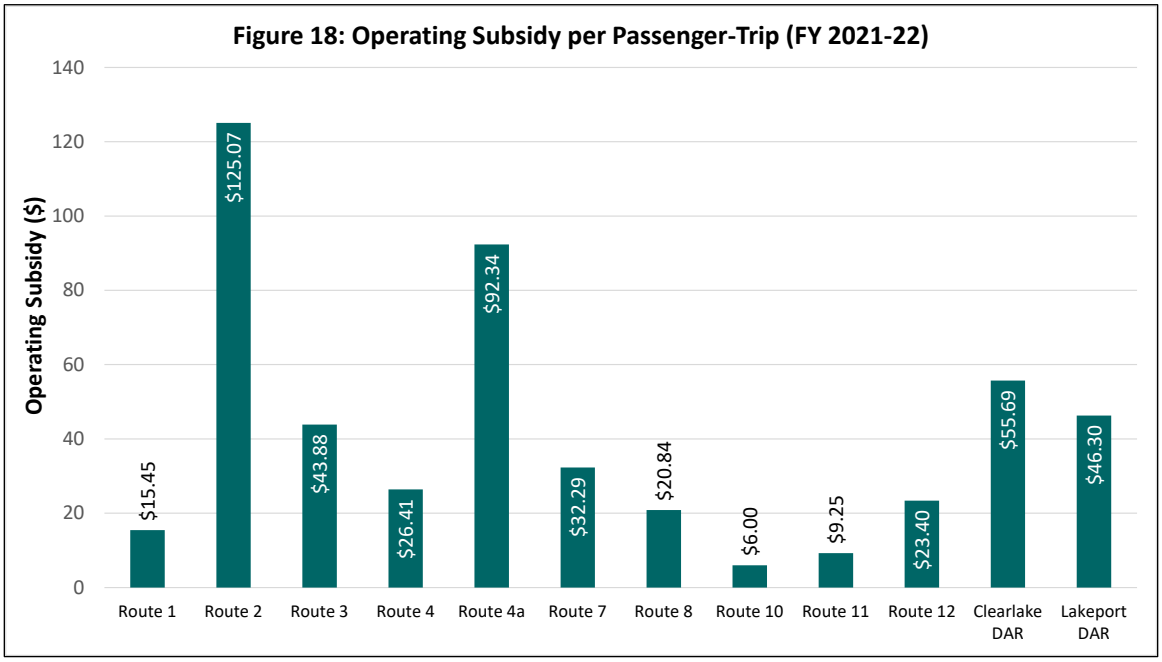
Source: LTA Compilation Forms FY 2021-22; LTA Financial Summary 2021-22

Route 10 had the lowest cost per passenger-trip at $7.90. Together, the Clearlake local routes were the most efficient with a total cost per passenger-trip of $9.67. The Lakeport local route (Route 8) was noticeably more expensive compared to the Clearlake local routes at $22.71 per passenger-trip. Route 1 had the lowest cost per passenger-trip of any of the intercity or intercounty routes.

Subsidy per Passenger-Trip

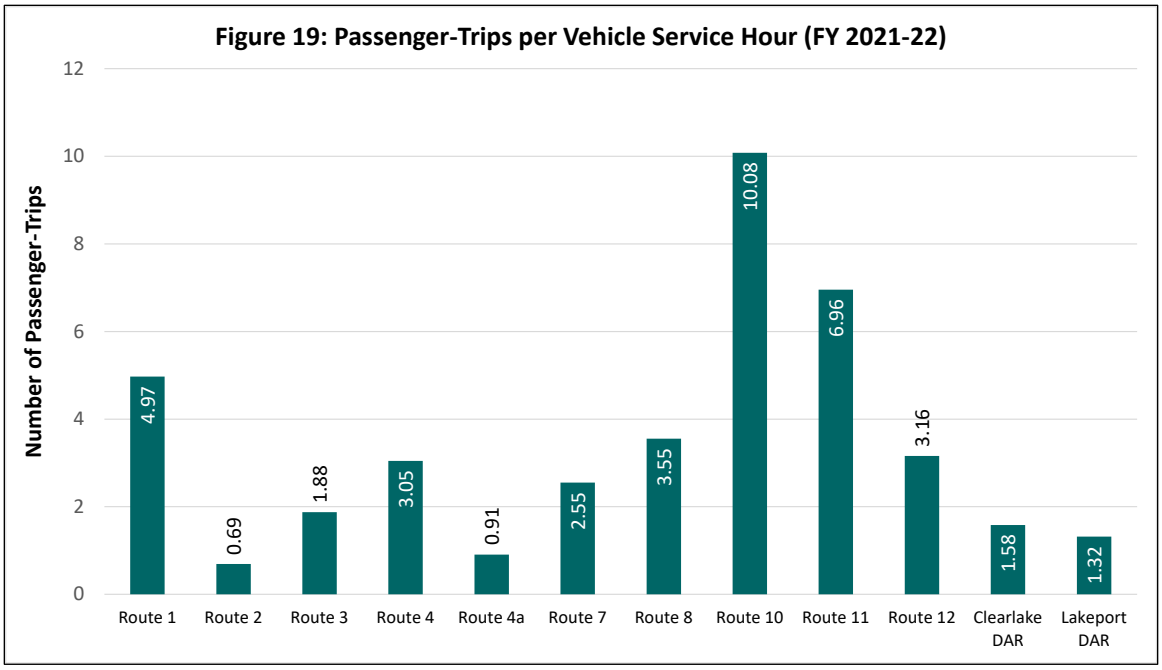
The operating subsidy per passenger-trip signifies the portion of trip costs that LTA is required to fund using federal, state, and other external sources. The systemwide subsidy per passenger-trip was $17.53 in FY 2021-22 (Table 18). Much like operating costs per trip, Routes 10 and 11 had the lowest subsidies per passenger-trips ($6.00 and $9.25, respectively). The subsidy per passenger-trip across all three of the Clearlake local routes was $7.77, significantly lower than the systemwide subsidy per trip of $17.53. Route 1 had the third-lowest subsidy per trip ($15.45). As seen in Figure 18, the most expensive subsidies per trip, in order from most expensive to least, were Route 2 ($125.07), Route 4a ($94.54), and the Lakeport DAR ($55.69).

Figure 18: Operating Subsidy per Passenger-Trip (FY 2021-22)



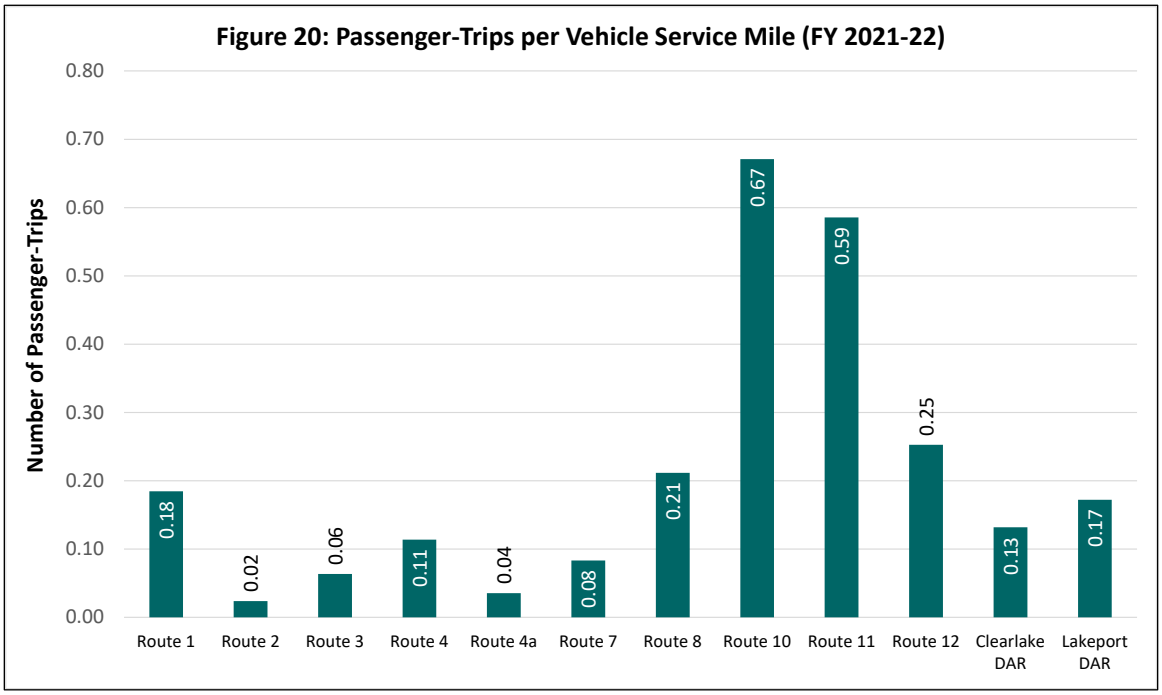
Passenger-Trips per Vehicle Service Hour

As shown in Table 18 and Figure 19, Route 10 generated the greatest number of passenger-trips per hour out of all the LTA services (10.08), followed by Route 11 (6.96). The third most productive route was Route 1 with 4.97 passenger-trips per hour. The other fixed routes in operation the entire year (Routes 3, 4, 7, and 8) generated between 1.75 to 3.75 passenger-trips per hour. A generally accepted industry standard for fixed route systems (prior to COVID-19) was 10 passenger-trips per hour. Following typical industry trends, the two DAR services had the lowest passenger-trips per hours besides the fixed routes with schedule reductions (Figure 19). This is expected as many DAR trips carry only one to two passengers.



Passenger-Trips per Vehicle Service Mile

In FY 2021-22, passenger-trips per vehicle service mile ranged from 0.02 trips (Route 2) to 0.67 trips (Route 10). The local routes were the four highest performing routes for this metric, with the three Clearlake local routes demonstrating the greatest performances (0.25-0.67) followed by Route 8 (0.21). Route 1 had the most passenger-trips per mile of any of the intercity, intercounty, or DAR services (0.18). Passenger-trips per vehicle service mile data for the various LTA services are shown in Table 18 and Figure 20.



LAKE LINKS

Lake Links is a nonprofit agency which serves as the Consolidated Transportation Service Agency (CTSA) for Lake County. The primary responsibility of the CTSA is to assist with the coordination of social service transportation services in order to increase the number of alternative transportation options available for seniors, disabled persons, and low-income individuals. Lake Links administers two important transportation programs that help Lake County residents get to medical appointments: the Pay-Your-Pal program and Medi-Links.

The Pay-Your-Pal program consists of Lake Links reimbursing designated drivers that drive qualified riders to and from medical appointments at a rate of $0.40 per mile. The Medi-Links program provides Non-Emergency Medical Transportation (NEMT) services for Lake County residents who need to get to medical appointments outside of the county. Reservations need to be made at least 24 hours in advance. Drop-off locations are primarily at hospitals and medical clinics.

Table 19 shows operating and performance data for the Medi-Links service in FY 2021-22. There were nearly four times as many trips requested to Santa Rosa versus Ukiah, resulting in over five times as many vehicle service hours, over six times as many vehicle service miles, and over five times as much fare revenues on the NEMT Santa Rosa service compared to the NEMT Ukiah service (Table 19). While this data suggests that Santa Rosa is definitely a more popular destination for Medi-Links passengers compared to Ukiah, there may be other out-of-county destinations that medical patients are still struggling to get transportation to. Given that the Lake County population will age drastically in coming years, expanding the Medi-Links program and NEMT services available to the public would be greatly beneficial. The most recent Regional Transportation Plan included expanding NEMT as one of its priorities for public transit improvements in upcoming years.

Table 19: Medi-Links Operating and Performance Data
FY 2021-22

	NEMT Ukiah	NEMT Santa Rosa	Total
One-way Passenger Trips	113	441	554
Vehicle Hours	294	1,585	1,879
Vehicle Miles	7,257	47,433	54,690
Operating Cost	$25,583	$137,694	$163,277
Fare Revenues	$866	$4,664	$5,530
Cost per Passenger-Trip	$226.40	$312.23	$294.72
Subsidy per Passenger-Trip	$218.73	$301.66	$284.74
Cost per Hour	$87.02	$86.87	$86.90
Passenger-Trips per Hour	0.4	0.3	0.3
Passenger-Trips per Mile	0.02	0.01	0.01

Source: Medilinks Financial Data

In terms of performance, Medi-links is much less cost effective to operate than regular LTA service. This is due to the fact that very few passengers are carried at one-time, and each trip is a significant distance. As shown in Table 19, operating subsidy per passenger-trip was on the order of $218 for NEMT Ukiah and $301 for NEMT Santa Rosa.

OTHER TRANSPORTATION PROVIDERS

There are many other transportation options available in Lake County besides LTA services. The most recent *Coordinated Public Transportation Plan* developed for Lake County discusses many of these services and how to best coordinate their efforts. Most of these transit providers are social service organizations that provide transportation assistance to their clients, members, or patients. There are also private organizations that offer transportation services to the public, for a fare. Alternative transportation providers to LTA are summarized below. Organizations that do not provide transportation but instead purchase LTA tickets for their clients, such as the Lake County Department of Social Services, or deliver goods, like the Live Oak and Lucerne Senior Centers, are not included in this section.

Adventist Health Clear Lake

Adventist Health Clear Lake purchased a patient transportation vehicle in 2016 to help patients get to medical appointments. Adventist Health Clear Lake acquired two more vehicles through a partnership with LTA; one vehicle was acquired in 2017 and another in May 2022. The eight-passenger minibus has been extremely helpful in transporting patients who have difficulties traveling (Coordinated Plan, 2021). A back-up fund was also established to cover cab and bus fares if the patient vehicles are unavailable.

Apple Taxi

This taxi service based out of Lakeport provides on-demand transportation services for a fee. The company operates 24 hours, 7 days a week (Coordinated Plan, 2021), with rides available on a first-come, first-serve basis.

Clearlake Cab Company

Clearlake Cab Company is a taxi service in Clearlake that serves the city and nearby areas of Lake County (Coordinated Plan, 2021). People can arrange for a ride between 7:00 AM to 12:00 AM from Sunday to Thursday and from 7:00 AM to 2:00 AM on Friday and Saturday. Service to both Sacramento and San Francisco Airports is available if scheduled ahead of time.

Disabled American Veterans (DAV)

The DAV program transports veterans from both Lake and Napa Counties to the San Francisco VA Medical Center. Volunteer drivers begin by picking up veterans at the police station in Clearlake, continuing on to stop in Lower Lake, Middletown, and Napa. The return trip is made once every veteran has finished his or her medical appointment. Only one round-trip is made daily, and reservations are required to utilize the service (Coordinated Plan, 2021).

Kelseyville Unified School District (KVUSD)

The KVUSD provides transportation to help students get to school. The KVUSD fleet consists of 15 school buses that operate nine routes during the school year.

Lake County Limousine Service

Limousine rentals are available through Lake County Limousine from Wednesday to Friday, 10:30 AM to 6:00 PM, and on Friday and Saturday from 10:30 AM to 4:00 PM (Coordinated Plan, 2021).

Lake County Taxi

Another taxi service that provides transportation services, Lake County Taxi, is available from 7:00 AM to 9:00 PM from Sunday to Thursday and from 7:00 AM to 2:00 AM on Friday and Saturday (Coordinated Plan, 2021).

Lake County Office of Education (LCOE)

LCOE provides transportation through a collaboration between the Healthy Start Program and First 5 Lake County, a local nonprofit organization supporting young children. Children are able to receive a referral for dental treatment through the partnership, and then Healthy Start provides transportation from school sites to either the dental clinic in St. Helena or to Oakland Children's Hospital (Coordinated Plan, 2021).

Lake Family Resource Center

Lake Family Resource Center provides programs to help Lake County families. Programs include Early Head Start, teen services, a rape crisis center, and housing services. Clients involved with either the Early Head Start or the Teen Parenting programs can prearrange transportation if needed (Coordinated Plan, 2021).

Lakeview Health Center

Lakeview Health Center is a branch of the Mendocino Community Health Clinic located in Lakeport. In addition to providing Lake Transit bus passes or gas vouchers, the Lakeview Health Center also provides transportation assistance for patients using their Care-a-Vans (Coordinated Plan, 2021). The vans are available on weekdays and can carry five to six passengers at a time. They do not have wheelchair lifts.

Maria's Midnight Rides

Maria's Midnight Rides is a private taxi service that operates 24 hours, 7 days a week (Coordinated Plan, 2021). Rates start at $2.50 per mile within the county.

People Services, Inc.

People Services, Inc. is a non-profit organization that provides services to persons with developmental disabilities living within Lake County. Transportation is available for individuals actively attending either their day or work programs. People Services. Inc. also organizes transportation to

serve ambulatory and non-ambulatory trip referrals, as well as to out-of-county medical appointments. People can also organize transportation to day events in the local community.

Redwood Coast Regional Center (RCRC)

The RCRC is one of CA's nonprofit regional centers serving individuals with developmental/intellectual disabilities through a contract with the California Department of Developmental Services. RCRC assists individuals and their families by paying for both public and private transportation. RCRC has offices in Lakeport and Ukiah, as well as other further locations.

Sutter Lakeside Hospital

Sutter Lakeside Hospital has an existing partnership with LTA to help patients unable to reach their clinics. Through the partnership, the hospital provides non-emergency medical transportation to patients living in Finley, Kelseyville, Lakeport, Lucerne, Nice, and Upper Lake.

Tribal Health Consortium

The Tribal Health Consortium is an organization that aims to improve the health of Native Americans living in Lake County by providing affordable and culturally sensitive health services and programs (Coordinated Plan, 2021). The Tribal Health Consortium provides transportation services to eligible patients so that they can attend appointments at any of the health centers within Lake County, as well as to appointments at referred providers out of the county. Transportation is only available to individuals who can provide proof of Indian Eligibility, have no transportation alternatives, and reside in the established delivery area.

Veterans Administration Shuttle

Provided through the San Francisco Veteran's Administration (VA) Clinic, the VA Shuttle transports veterans from the VA Clinic in Clearlake to San Francisco on weekdays for appointments. A shuttle leaves Clearlake twice a day, and Veterans have the option to take three different return shuttles later in the day (Coordinated Plan, 2021). Trips in both directions required a transfer in Santa Rosa.

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Chapter 5

REVIEW OF LTA GOALS, OBJECTIVES, AND STANDARDS

PURPOSE

It is important to have a clear set of goals and objectives in order to direct an organization's progress. Performance measures and standards are tools that can be used to determine whether an organization is actually meeting its goals, opening the door for a conversation about whether to continue with current practices or if changes are needed. Sometimes changes may be needed to actual business practices, while other times it may be necessary to reevaluate the goals and performance measures altogether.

For transit agencies, the process of establishing goals can be difficult because sometimes the goals are contradictory. For instance, goals intended to maximize cost effectiveness can tend to focus services on the largest population centers, while goals intended to maximize the availability of public transit services can tend to disperse services to outlying areas. A public transit agency must balance the trade-offs between achieving different objectives in order to meet its overall mission.

Lake Transit is a public agency dedicated to providing mobility to all Lake County citizens (Lake Transit, 2022). Given its status as a public transit organization, it is important that LTA have an adopted set of goals and associated performance measures that can provide transparency about whether or not the organization is meeting its goals, spending funds well, and providing useful and equitable service.

The COVID-19 pandemic significantly impacted the entire world, including public transit agencies. In the new post-COVID era, it is essential that public transit services, as well as the goals and standards used to evaluate these services, are assessed to determine if they are still reasonable given the new setting for transportation. In this chapter, LTA performance in FY 2021-22 is analyzed in the context of the performance standards established in the 2015 TDP and new standards are recommended.

SUMMARY OF LTA GOALS AND STANDARDS

2008 LTA Transit Development Plan (TDP) Study

The 2008 TDP recommended four goals to guide LTA in providing excellent transit service to Lake County residents. These goals were reviewed and adopted by the LTA Board. The goals consisted of the following:

- Service efficiency goal: to maximize the level of services that can be provided within the financial resources associated with the provision of transit services.
- Service effectiveness goal: to maximize the ridership potential of LTA service.
- Service quality goal: to provide safe, reliable, and convenient transit services.
- Planning and management goal: to evaluate strategies which help management maximize

productivity while meeting the transit needs of the community and develop a transit program that supports comprehensive planning goals.

For each goal, the 2008 TDP recommended three to fourteen performance measures to track progress towards achieving that goal. These performance measures were updated in the 2015 TDP.

2015 LTA Transit Development Plan (TDP) and Marketing Plan

The 2015 LTA TDP found that there had been little to no tracking of the performance measures presented in the 2008 TDP since it had been approved. Therefore, the 2015 TDP presented a new performance monitoring framework. This framework recommended performance measures based on the monitoring requirements of the Transportation Development Act (TDA) and the Title VI program, with a few optional but recommended measures included as well. The 2015 TDP also suggested that the LTA should begin estimating fares and costs per route to measure performance in the future.

Rather than recommend a single measure for each performance standard like in the previous TDP, the 2015 TDP recommended that the LTA adopt a minimum and target measure for each standard category, resulting in a range of performance that is acceptable. The 2015 TDP also recommended that LTA performance be considered by new service categories:

- Local Fixed Routes: Routes 8, 10, 11, and 12
- Rural Routes: Routes 2 and 4a
- Regional Routes: Route 1
- Intercity Routes: Routes 3, 4, and 7
- Dial-a-Ride (DAR): Clearlake DAR and Lakeport DAR

The performance standards recommended for the LTA to monitor also required by the TDA were operating cost per vehicle service hour, farebox recovery ratio, passengers per vehicle service hour, and operating cost per passenger-trip. Standards recommended required by Title VI included on-time performance, vehicle load, vehicle headway, service availability, and vehicle assignment policy. Additional recommended standards were administrative cost as a percentage of total operating cost, miles between road calls, and miles between preventable accidents.

LTA STANDARD PERFORMANCE REVIEW

Operating and performance data for the entire LTA system as well as each LTA route/service was considered in Chapter 4 of this report (Tables 12, 17, and 18; Figures 15, 16, 17, 18, 19, and 20). The data analyzed in Chapter 4 is now considered below in reference to the LTA performance standards established in the 2015 TDP. Tables 20a, 20b, and 20c show whether Lake Transit performance in FY 2021-22 (and on-time data in FY 2020-21) met the target or minimum performance standards.

Lake Transit performance related to vehicle assignment policy, vehicle loads, miles between preventable accidents, and miles between road calls is not included in any of the tables due to a lack of available data for these standards. It is recommended that LTA eliminate these standards due to

difficulties with tracking. For all other standards, information is included in the tables about whether the performance standard is still recommended as of this 2022 TDP update, and if it is recommended what the updated measures should be. The following is a brief overview of the data presented:

- Operating costs per vehicle service hour is a key indicator of a transit system's cost efficiency. Systemwide, LTA's operating costs per vehicle service hour totaled $83.31 in FY 2021-22 (Table 20a). The 2015 TDP recommended a target standard of $65 per hour and a minimum standard of $75 per hour, but also recommended that these standards be updated annually to reflect inflation as measured by the California Consumer Price Index (CPI). Using the California Department of Industrial Relations' CPI Calculator, inflation in Lake County between June 2015 (when the 2015 TDP was completed) to April 2022 was 26.5 percent, meaning the target standard for LTA is now $82.23 and the minimum standard is $94.88. In FY 2021-22, Lake Transit met the minimum standard for operating cost per vehicle service hour and nearly met the target standard. No changes to this standard are recommended.

- Lake Transit did not meet the minimum systemwide farebox recovery ratio of 15 percent in FY 2021-22 due to decreased ridership resulting mostly from the pandemic. None of the service categories met the minimum standards for farebox recovery ratio either. Each service category ranged from 3 to 6 percent below the minimum standard set in the 2015 TDP (Table 20a). It is recommended that only the systemwide farebox ratio be assessed going forward, with a target standard of 10 percent. Note that at present TDA farebox ratio requirements have been suspended and it is currently uncertain when they will be reinstated or at what levels.

- Passengers per vehicle service hour is a metric that measures a transit system's productivity. Low ridership levels due to the effects of the COVID-19 pandemic caused Lake Transit to not meet the minimum standard for passengers per vehicle service hour in FY 2021-22. There were no service categories that met their specific minimum standard. The routes with the greatest passengers per vehicle service hour were the local routes (Routes 8, 10, 11, and 12), followed by the regional route (Route 1). None of the other fixed route categories exceeded 3 passengers per hour, and the DAR services had only 1.5 passengers per hour. Recommended performance measures for this metric are shown in Table 20a.

- Operating cost per passenger-trip was lowest on the local routes (Routes 8, 10, 11, and 12) at $12.59 per trip. Route 1, or the regional route, had the second lowest cost per passenger-trip at $17.43 and was below the systemwide average of $19.52 per passenger-trip. The rural routes were by far the most expensive ($110.79/trip). Decreased ridership and increased costs in FY 2021-22 resulted in no LTA services meeting the minimum standards set forth by the 2015 TDP for this metric (Table 20b), so new standards are recommended.

- The 2015 TDP recommended as an optional metric that LTA manage administrative costs as a percentage of total operating costs, suggesting a target of 10 percent. Analyzing Lake Transit's FY 2021-22 expenses (Table 16), the data demonstrates that Lake Transit met the target standard for this metric (Table 20b). No changes to this standard are recommended.

Table 20a: Review of LTA Performance Against Current Standards

Shading Indicates Does Not Meet Minimum Standard
Shading Indicates Meets Minimum Standard But Not Target Standard
Shading Indicates Meets Target Objective

Service	Standard Type	Description	Current Status (FY 2021-22)	Recommended Standard
TDA Performance Standards				
Operating Cost per Vehicle Service Hour				
Systemwide	**Target**	$82/hr (FY 21-22) - Adjust Annually Per CA CPI	$83.31	Unchanged
	Minimum	$94/hr (FY 21-22) - Adjust Annually per CA CPI		
Farebox Recovery Ratio				
Systemwide	**Target**	20%	10.2%	10.0%
	Minimum	15%		10.0%
Local Routes	**Target**	25%	15%	Eliminated
	Minimum	20%		
Regional Routes	**Target**	20%	11%	Eliminated
	Minimum	15%		
Intercity Routes	**Target**	14%	7%	Eliminated
	Minimum	10%		
Rural Routes	**Target**	12%	2%	Eliminated
	Minimum	8%		
Dial-a-Ride	**Target**	10%	4%	Eliminated
	Minimum	7%		
Service Productivity -- Passengers Per Vehicle Service Hour				
Systemwide	**Target**	10.0	4.3	7.0
	Minimum	7.0		5.0
Local Routes	**Target**	15.0	6.3	10.0
	Minimum	10.0		6.0
Regional Routes	**Target**	12.0	4.3	7.0
	Minimum	9.0		5.0
Intercity Routes	**Target**	6.0	2.2	3.0
	Minimum	4.0		2.0
Rural Routes	**Target**	7.0	0.8	2.5
	Minimum	4.0		1.0
Dial-a-Ride	**Target**	4.0	1.5	2.0
	Minimum	2.5		1.5

Sources: 2015 Lake County TDP and Marketing Plan; LTA Compilation Form FY 2021-22; LTA Financial Summary FY 2021-22

- On-time performance data for FY 2020-21 was analyzed in Chapter 4 (Table 12 and Figure 15). The 2015 TDP recommended considering three service categories for this metric: intercity routes, all other fixed routes, and DAR services. While a large portion of intercity routes arrived early, technically over 95 percent of buses did arrive in 10 minutes or earlier, therefore meeting the target standard (Table 20c). Only 60 percent of datapoints for all other fixed routes were considered to be on-time, well below the target standard of 95 percent. DAR on-time performance is unknown due to a lack of available data. No changes to this standard are recommended.

Table 20b: Review of LTA Performance Against Current Standards

Shading Indicates Does Not Meet Minimum Standard
Shading Indicates Meets Minimum Standard But Not Target Standard
Shading Indicates Meets Target Objective

Service	Standard Type	Description	Current Status (FY 2021-22)	Recommended Standard
TDA Performance Standards				
Cost per Passenger-Trip				
Systemwide	**Target**	$8.00	$19.52	$10.00
	Minimum	$10.00		$19.50
Local Routes	**Target**	$6.00	$12.59	$10.00
	Minimum	$9.00		$12.50
Regional Routes	**Target**	$7.50	$19.97	$15.00
	Minimum	$10.00		$20.00
Intercity Routes	**Target**	$14.00	$40.36	$30.00
	Minimum	$20.00		$40.00
Rural Routes	**Target**	$14.00	$110.79	$100.00
	Minimum	$20.00		$110.00
Dial-a-Ride	**Target**	$21.00	$52.26	$45.00
	Minimum	$26.00		$50.00
Recommended Standards				
Administrative Cost as Percentage of Total Operating Costs				
Systemwide	**Target**	10% Administrative Cost as Percentage of Total Operating Costs	< 5%	Unchanged
	Minimum	15% Administrative Cost as Percentage of Total Operating Costs		

Sources: 2015 Lake County TDP and Marketing Plan; LTA Compilation Form FY 2021-22; LTA Financial Summary FY 2021-22; LTA On-Time Peformance Data FY 2020-21

- Service frequency for the local routes met the minimum standard of 60-minute headways in FY 2021-22 (Table 19c). Intercity routes also met the target goal, as each intercity route remained in operation the entire year and continued to provide key transfer opportunities to other transit providers. Due to staffing shortages, Routes 2 and 4a did meet the minimum service frequency of three roundtrips daily, however Route 1 exceeded this standard. No changes to this standard are recommended.
- The Coordinated Transit Plan (2021) found that according to 2012 US Census data, 82 percent of Lake County residents live within ¾ mile of an LTA bus stop. DAR service data was lacking for this metric. An analysis of service availability should be done once new US Census data becomes available for Lake County.

Table 20c: Review of LTA Performance Against Current Standards

Shading Indicates Does Not Meet Minimum Standard
Shading Indicates Meets Minimum Standard But Not Target Standard
Shading Indicates Meets Target Objective

Service	Standard Type	Description	Current Status (FY 2021-22)	Recommended Standard
Title VI Performance Standards				
On-Time Performance				
Intercity Routes	**Target**	90% of runs within 10 minutes	98%	Unchanged
	Minimum	95% of runs within 10 minutes		
All Other Fixed Routes	**Target**	95% of runs on time at timepoints (1 minute early to 5 minutes late)	60%	Unchanged
	Minimum	90% of runs on on time at timepoints		
Dial-a-Ride	**Target**	95% Pickups Within 30 Minute Window	N/A	Unchanged
	Minimum	90% Pickups Within 30 Minute Window		
Frequency				
Local Routes	**Minimum**	60 Minutes or Better	Yes	Unchanged
Regional and Rural Routes	**Target**	Frequency Based on Demand, Distance of Trip, and Transfer Opportunities	No	Unchanged
	Minimum	Three Roundtrips Daily		
Intercity Routes	**Target**	Frequency Based on Demand, Distance of Trip, and Transfer Opportunities	Yes	Unchanged
Availability				
All Fixed Routes	**Target**	80% of Population Within 3/4 Mile of Bus Stop	82%	Unchanged
	Minimum	80% of Population Within 1 Mile of Bus Stop		
Dial-a-Ride	**Target**	Service Within 1 Hour of Requested Pick-up or Drop-off Time (for Requests Made Previous Day to 7 Days in Advance)	N/A	Unchanged

Sources: 2015 Lake County TDP and Marketing Plan; LTA Compilation Form FY 2021-22; LTA Financial Summary FY 2021-22

SUMMARY

Although LTA performance met the minimum or target standards in some performance metrics in recent years, changing conditions for public transportation have made it extremely difficult to meet many of the performance standards outlined in the 2015 TDP. A lack of data in some metrics, such as vehicle loads, also make it difficult or impossible to analyze LTA performance in that standard.

New performance standards have been recommended based on operations since the COVID-19 pandemic. It was also recommended that some of the performance standards be eliminated due to difficulties in measuring relevant data. These updated performance standards will continue to assess whether LTA is striving to achieve its overall mission of providing mobility to Lake County residents.

Appendix A

BOARDING AND ALIGHTING COUNTS

LAKE TRANSIT BOARDING AND ALIGHTING COUNTS

During May 2022, trained surveyor staff conducted boarding and alighting counts while simultaneously assisting with public outreach efforts. Boarding and alighting counts were completed on each fixed route that was in operation (all fixed routes besides Route 4a). While the data collected is based on limited runs, it is still helpful in indicating bus stop locations which generate high levels of passenger activity versus those which are barely used. As an example, bus stops that generate high levels of activity can then be considered for funds dedicated for improved passenger amenities. This appendix includes a summary table of estimated daily boardings for fifty of the most commonly used stops by survey participants, as well as a more detailed summary table for each individual route. Each table indicates the stops that were the most popular among passengers.

Key Findings

- As would be expected, the Walmart in Clearlake had the highest activity with an estimated 103 boardings daily. The Walmart is not only a popular destination in its own right, but also serves as a transfer location for passengers on Routes 1, 3, 4, 10, 11, and 12. Other popular stops included Sutter Lakeside Hospital, Third and Main Street in Lakeport, Austin Park, Robinson Rancheria, and Burns Valley Mall.

- Across all of the fixed routes, there were no boardings or alightings recorded between 5:00 AM to 6:00 AM, with many buses operating empty until after 7:30 AM. The extremely low ridership in the early morning hours suggests that bus service could potentially start later in the day.

- Bus drivers regularly stopped at flag stops along all of the fixed routes, as long as the location was deemed safe. These stops draw ridership from nearby established stops. For instance, there were multiple flag stops recorded in the Avenues neighborhood of Clearlake along Route 11. One such stop was at Boyle and 29th, drawing the passenger away from either the stop at Boyles and 25th or at Boyles and 31st.

Table 1: LTA Stops with Greatest Boarding and Alighting Activity Across All Routes

Bus Stop	Estimated Average Daily Boardings									Total
	Route 1	Route 2	Route 3	Route 4	Route 7	Route 8	Route 10	Route 11	Route 12	
Walmart (Clearlake)	24	0	5	3	0	0	40	24	6	103
Sutter Lakeside Hospital	22	0	0	0	0	29	0	0	0	51
3rd St & Main St (Lakeport)	0	0	0	5	23	15	0	0	0	43
Robinson Rancheria Resort & Casino	13	0	0	0	17	0	0	0	0	31
Burns Valley Mall	0	0	0	0	0	0	14	5	0	19
Austin Park	0	0	0	0	0	0	2	11	4	17
Veteran's Clinic	0	0	0	0	0	0	8	6	0	15
Adventist Health Family Clinic	0	0	0	0	0	0	0	11	0	11
Second St & Lake St (Lower Lake)	0	0	0	0	0	0	8	0	2	10
Safeway (Lakeport)	0	0	0	2	0	8	0	0	0	9
Cypress Ave & Old Hwy 53	0	0	0	0	0	0	9	0	0	9
Grocery Outlet (Lakeport)	0	0	0	6	0	2	0	0	0	8
Clearlake Post Office	0	0	0	0	0	0	5	3	0	8
Lower Lake High School	0	0	0	0	0	0	5	0	2	7
13th & SR 20 (Lucerne)	7	0	0	0	0	0	0	0	0	7
Lakeshore Blvd & Lange St	0	0	0	0	0	7	0	0	0	7
Twin Pine Casino	0	2	4	0	0	0	0	0	0	6
Running Creek Casino	6	0	0	0	0	0	0	0	0	6
11th & Bush St (Clearlake)	0	0	0	0	0	0	5	0	0	5
Lake County Tribal Health - Main Clinic	0	0	0	0	0	5	0	0	0	5
1st Ave & SR 20 (Lucerne)	5	0	0	0	0	0	0	0	0	5
Hospice Service of Lake County (Clearlake)	0	0	0	0	0	0	0	5	0	5
Clearlake Senior Center	0	0	0	0	0	0	0	4	1	5
2nd St & Bush St (Clearlake)	0	0	0	0	0	0	5	0	0	5
Mendo Mill (Clearlake)	0	0	0	0	0	0	4	0	1	5
Valero (Clearlake)	0	0	0	0	0	0	1	3	0	4
Clearlake Apartments	0	0	0	0	0	0	4	0	0	4
33rd Ave & Phillips Ave	0	0	0	0	0	0	0	4	0	4
Safeway (Clearlake)	0	0	0	0	0	0	0	4	0	4
9th & Main St	0	0	0	4	0	0	0	0	0	4
Lakeshore Dr & Old Hwy 53	0	0	0	0	0	0	4	0	0	4
Main St & SR 20 (Upper Lake)	4	0	0	0	0	0	0	0	0	4
Armstrong Road	0	0	1	0	0	0	2	0	0	4
Hidden Valley Water Company	0	0	3	0	0	0	0	0	0	3
Lake Transit	0	0	0	1	0	0	2	0	0	3
Nortpoint Mobile Home Park	0	0	0	0	0	3	0	0	0	3
Baylis Ave & Lakeshore Dr	0	0	0	0	0	0	3	0	0	3
Old Red Cross (Clearlake)	0	0	0	0	0	0	3	0	0	3
Kelseyville Lumber	0	0	0	3	0	0	0	0	0	3
Tower Mart (Lakeport)	0	0	0	0	0	3	0	0	0	3
Hinman Park	3	0	0	0	0	0	0	0	0	3
14th & SR 20 (Lucerne)	3	0	0	0	0	0	0	0	0	3
Orchard Shores	3	0	0	0	0	0	0	0	0	3
Pine St & SR 20	3	0	0	0	0	0	0	0	0	3
40th Ave & Phillips Ave	0	0	0	0	0	0	0	3	0	3
Ridge Lake Apartments - Commons	0	0	0	0	0	0	2	0	0	2
Lincoln Ave Bridge (Calistoga)	0	0	2	0	0	0	0	0	0	2
Bella Vista Apartments (Lakeport)	0	0	0	0	0	2	0	0	0	2
Lake County Social Services (Lower Lake)	0	0	0	0	0	0	0	0	2	2
Nice Post Office	2	0	0	0	0	0	0	0	0	2
Sentry Market	2	0	0	0	0	0	0	0	0	2

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 2: Top Boardings and Alightings by Stop (Route 1)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Walmart (Clearlake)	1.2	1.2	**17%**
Sutter Lakeside Hospital	1.1	1.0	**15%**
Robinson Rancheria	0.7	0.4	**7%**
Running Creek Casino	0.3	0.6	**7%**
Community Garden Park (Lucerne)	0.4	0.1	**4%**
Hinmark Park	0.1	0.3	**3%**
SR 20 & First St.	0.3	0.1	**3%**
Nice Post Office	0.1	0.3	**3%**
Collier Ave (Upper Lake)	0.1	0.3	**3%**
Upper Lake High School	0.1	0.1	**2%**
Sentry Market	0.1	0.1	**2%**
Tower Mart	0.1	0.1	**1%**
14th & Hwy 20 (Lucerne)	0.1	0.0	**1%**
Blue Fish Cove	0.1	0.0	**1%**
Rivera Motel	0.0	0.1	**1%**
9th & Hwy 20 (Lucerne)	0.1	0.1	**1%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 3: Top Boardings and Alightings by Stop (Route 2)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Twin Pine Casino	4.0	0.0	**50%**
Loch Lomond	2.0	0.0	**25%**
Kit's Corner	1.0	0.0	**13%**
Turnout past Dry Creek	1.0	0.0	**13%**
Admiral Road	0.0	0.0	**0%**
Armstrong Road	0.0	0.0	**0%**
Harrington Flats	0.0	0.0	**0%**
Mariah Meadows	0.0	0.0	**0%**
Diamond Dust	0.0	0.0	**0%**
Wild Cat Canyon	0.0	0.0	**0%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 4: Top Boardings and Alightings by Stop (Route 3)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Walmart (Clearlake)	1.1	1.4	**29%**
Twin Pines Casino	1.0	0.4	**16%**
Hidden Valley Water Company	0.8	0.6	**16%**
Lincoln Ave Bridge (Calistoga)	0.5	0.3	**9%**
Tower Mart	0.0	0.8	**9%**
Armstrong Road	0.3	0.3	**6%**
Perry's Deli	0.3	0.0	**3%**
Young St & Hwy 29	0.3	0.0	**3%**
Coyote Valley Plaza (Hidden Valley Lake)	0.1	0.1	**3%**
Mug Shots	0.0	0.3	**3%**
Lincoln Ave & Fair Way (Calistoga)	0.0	0.3	**3%**
Calistoga Depot	0.1	0.0	**1%**
Lake Transit Yard	0.0	0.0	**0%**
Hardester's Market (Hidden Valley Lake)	0.0	0.0	**0%**
Twin Lakes	0.0	0.0	**0%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 5: Top Boardings and Alightings by Stop (Route 4)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Walmart (Clearlake)	0.2	0.9	**20%**
Third & Main St (Lakeport)	0.4	0.3	**13%**
Grocery Outlet	0.5	0.1	**11%**
Ninth & Main St. (Lakeport)	0.3	0.0	**5%**
Kelseyville Lulmber	0.2	0.1	**5%**
Across from Pharmacy (Kelseyville)	0.0	0.3	**5%**
Fourth & Main St (Kelseyville)	0.1	0.2	**5%**
Safeway (Lakeport)	0.1	0.1	**4%**
Rotten Robbies	0.1	0.0	**2%**
Store 24	0.1	0.0	**2%**
Kit's Corner	0.0	0.1	**2%**
SR 29 & SR 53	0.0	0.1	**2%**
Lake Transit Yard	0.1	0.0	**1%**
Farmer's Insurance (Kelseyville)	0.1	0.0	**1%**
Idle Wheels (Kelseyville)	0.0	0.1	**1%**
Bruno's	0.0	0.1	**0%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 7: Top Boardings and Alightings by Stop (Route 8)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Sutter Lakeside Hospital	1.1	0.5	**20%**
Third & Main St	0.6	0.6	**15%**
Safeway (Lakeport)	0.3	0.5	**10%**
Grocery Outlet	0.1	0.5	**7%**
Lakeshore & Lange	0.3	0.2	**6%**
Bella Visa	0.1	0.3	**4%**
Konocti Vista Casino	0.0	0.3	**4%**
Northpoint Mobile Home Park	0.1	0.2	**4%**
Lake County Tribal Health (Main Clinic)	0.2	0.0	**3%**
Tower Mart	0.1	0.1	**3%**
MCHC - Lakeview	0.1	0.1	**3%**
Martin St	0.2	0.0	**2%**
El Dorado Motel	0.1	0.1	**2%**
Rainbow Mobile Home Park	0.1	0.0	**2%**
Lake County Social Services	0.1	0.0	**2%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 8: Top Boardings and Alightings by Stop (Route 10)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Walmart (Clearlake)	2.1	1.8	**26%**
Burns Valley Mall	0.8	0.8	**10%**
Veteran's Clinic (Clearlake)	0.4	0.6	**7%**
Ridge Lake Apartments	0.1	0.5	**4%**
Cypress Ave.	0.5	0.1	**4%**
Lower Lake High School	0.3	0.3	**4%**
Second St & Lake St	0.4	0.1	**3%**
Second & Bush St	0.3	0.2	**3%**
11th & Bush St	0.3	0.1	**3%**
Clearlake Apartments	0.3	0.2	**3%**
Lakeshore & Hwy 53	0.2	0.2	**3%**
Baylis & Lakeshore	0.1	0.3	**3%**
Clearlake Post Office	0.3	0.1	**2%**
Former Red Cross	0.2	0.1	**2%**
City Hall	0.0	0.3	**2%**
Mendo Mill	0.2	0.1	**2%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 9: Top Boardings and Alightings by Stop (Route 11)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Walmart (Clearlake)	1.4	1.2	**23%**
Adventist Health Family Clinic	0.6	0.4	**9%**
Burns Valley Mall	0.3	0.7	**9%**
Austin Park	0.6	0.2	**7%**
Clearlake Senior Center	0.2	0.3	**5%**
Veteran's Clinic (Clearlake)	0.4	0.1	**4%**
Hospice Services of Lake County	0.3	0.2	**4%**
33rd & Phillips	0.2	0.2	**4%**
Safeway (Clearlake)	0.2	0.2	**4%**
Valero	0.2	0.1	**3%**
29th & Boyles	0.1	0.3	**3%**
Catfish Coffee	0.0	0.4	**3%**
18th & Boyles	0.1	0.2	**3%**
Clearlake Post Office	0.2	0.1	**2%**
Woodland College	0.1	0.2	**2%**
18th & Irving	0.1	0.1	**2%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022

Table 10: Top Boardings and Alightings by Stop (Route 12)

Bus Stops	Average Per Run On	Average Per Run Off	% of Surveyed Activity
Walmart (Clearlake)	1.4	0.6	**27%**
Austin Park	0.8	0.4	**16%**
Lake County Social Services	0.4	0.4	**11%**
2nd St & Lake St	0.4	0.2	**8%**
Lower Lake High School	0.4	0.0	**5%**
B&G Tires	0.2	0.2	**5%**
Clearlake Senior Center	0.2	0.2	**5%**
Mendo Mill	0.2	0.2	**5%**
Cypress	0.0	0.4	**5%**
Hillcrest	0.2	0.0	**3%**
Crossroads Church	0.0	0.2	**3%**
Lakeshore & Old Hwy 53	0.0	0.2	**3%**
Safeway (Clearlake)	0.0	0.2	**3%**
Walnut Grove Apartments	0.0	0.2	**3%**
King Fisher Trombetta's	0.0	0.2	**3%**
Clearlake Post Office	0.0	0.2	**3%**

Source: LSC Transportation Consultants, Inc. Based on limited runs in May, 2022